

4

Revised Edition

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# Social Studies

for PAKISTAN

TEACHING GUIDE

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## Introduction

The *New Oxford Social Studies for Pakistan* series has been revised both in terms of text and layout for compatibility with the change in data and the changing demands of the classroom. The series presents updated facts and figures in a well-illustrated, attractive, and user-friendly format. The sequence of topics has been revised and lessons are grouped thematically under Unit headings. The Teaching Guides have also been revised correspondingly and are presented in a new format. A valuable addition is the appendix that provides photocopiable worksheets for students. Furthermore, extensive lesson plans have been included along with more worksheets, as appropriate, to facilitate the teachers. (The duration of a teaching period is generally 40 minutes and the lessons have been planned accordingly.)

The main objective of this Teaching Guide is to give ideas to make teaching and learning enjoyable, interesting, and useful. At this age, it is important that children are taught in a creative, interactive way so that they do not learn by rote, but absorb knowledge meaningfully and also develop crucial skills such as observation, critical thinking, and using their imagination.

The guidelines for each lesson cover mainly four parts. First is the textbook itself. It has been suggested how the teacher may begin the topic and initiate questions and points of discussion that should be incorporated into the introduction and the reading of the text. These points should be referred to repeatedly while doing the other activities/sections as well.

Secondly, there are comments on the questions, Work Pages, and 'Things to do', given in the textbook. These are useful tools for reinforcement. From Class 3 onwards to Class 5, the use of a good children's atlas is strongly advised to help them understand basic geographical concepts and to introduce geographical skills such as map-reading; the *Oxford Project Atlas for Pakistan*, especially developed for Classes 3, 4, and 5, meets these requirements most suitably and attractively.

In addition to these, in the third part of the guidelines, an art and craft section has been included. Children always enjoy making things themselves and getting them to do a related craft is a fun way to reinforce what has been taught.

Finally, ideas that can be used as homework or developed as worksheets for each lesson have also been included to give the children supplementary material to choose from. For some lessons, related songs, stories, display boards, and excursion ideas have been offered.

Lessons must be planned in advance for the week or month so that the course coverage is assured along with adequate time for assessments.

Teachers may choose to link the lessons for continuity, if required, but it is not necessary to complete each and every suggested activity. The teacher, being familiar with the class and the time frame to be followed, is the best judge to select, adapt, and diverge as appropriate. The lesson should, however, be as interactive and enjoyable as possible, so that the children remain attentive and involved. Happy teaching!

## Lesson 1 The Earth in space

### Discussion points

- The shape of the Earth
- The Earth in space
- Useful terms and their definitions
- Understanding the Earth's movements and effects

This is a very interesting subject and the students can get the maximum mileage out of your lecture if you arrange for a globe to be placed on your desk, in full view of the class. This is an essential prop for geography, history, and science subjects. If, however, a globe is not available, a large blue ball, like a football will do, but only as a temporary substitute. Additionally, a large, coloured illustration or photograph of the Earth and its immediate environs, also showing the Sun and the Moon in close proximity, will be necessary to explain the topic of this lesson. You are advised to prepare thoroughly to explain these concepts, and to make good use of this Teaching Guide.

Begin the lesson by telling the students that the Earth has a spherical (round, circular) shape while pointing to the globe. It is slightly flatter at the upper and lower ends. Identify the two ends by pointing them out; tell them these two areas are known as the North and South Poles. Ask them why they are called the poles. Explain that the Earth's axis is an imaginary line that runs vertically through the Earth from north to south. The two ends of the axis are known as the North Pole and the South Pole.

Also explain that the Earth's axis is not perpendicular to the Sun, i.e. at  $90^\circ$ , but is tilted at an angle of  $23.5^\circ$ . The importance of this fact will be understood when students are taught about seasons and how they are caused.

### Suggested activity to explain revolution

- For this activity, you need a large ball, preferably orange or yellow, to represent the Sun, and a smaller ball (tennis) to represent the Earth and a ping-pong ball, to represent the Moon. Ask three students to come up and help you demonstrate this exercise. The student with the orange ball (Sun) should hold it in a steady position, while the other student will revolve the tennis ball (Earth) around the Sun and the third student will revolve the ping-pong ball (Moon) in a circular motion round the 'Earth'. This exercise needs some prior practice to get it right, but it can amply demonstrate the movement of the spherical objects in the sky, in relation to each other.

Ask students if they know how day and night take place. Give them a chance to think before answering. Then explain rotation by using the globe to show this movement. The Earth rotates on its axis or pole only once in 24 hours and parts of the Earth that face the Sun have day while those facing away from it have night. Explain that the Sun is *stationary*. It does not *rise* and *set*; it is the Earth that moves on its axis and the Moon that moves around the Earth, as they both move around the Sun.

Explain that for thousands of years the movements of the planets and stars were not discovered. Ancient people believed the Earth to be at the centre of the universe with all other heavenly bodies, including the Sun moving around it. So it was believed that the Sun *rose* and *set* in the sky.

**Day and night:** The Earth's rotation on its axis causes the phenomenon of day and night. Those parts of the Earth that face the Sun have daylight (demonstrate this by pointing to the globe) and those parts that face away from the Sun are in darkness and, therefore, experience night.

Next, explain hemispheres, i.e. half of a sphere. Tell the students that there is another imaginary line that goes around the middle of the Earth, this time horizontally. Point this out on the globe or a world map. This is called the equator. Again, like the axis, we cannot see it, but it is there. This divides the Earth into two parts, the northern hemisphere and the southern hemisphere.

Those countries that are close to or on the equator are very hot because the Sun is directly overhead all year round.

### **Suggested activity**

- You could use a torch here to represent the light of the Sun. Show them the shape of the Earth: the area at the middle of the Earth is fully exposed to the hot rays of the Sun whereas moving towards the poles, there is less heat and sunlight, so these regions are colder.

**Orbits:** Ask the students why it is that the Earth and the Moon do not move away from their path round the Sun, but always move in the same direction, on the same path, day after day, year after year, century after century. The reason is that planets and satellites have orbits or paths that are fixed by nature—according to the gravity of the moving and stationary objects—and they always keep to these orbits. Tell them the orbits are elliptical or oval in shape.

Show them oval-shaped objects to drive home the point and show them the diagram on page 2 of the textbook. The Earth's orbit round the Sun is clearly oval in shape.

**Seasons:** What is the season these days? What was the season before this one? What is the season after this? How are seasons caused? Ask the students these questions. See if they have any idea how seasons or changes in weather are caused.

Tell them that they have learnt that the Earth is rotating on its axis and revolving round the Sun simultaneously. The rotation of the Earth causes day and night and the revolution of the Earth round the Sun causes the seasons. The diagrams on pages 2 and 3 of the textbook will help to explain the concept. The tilt of the axis and the Earth's oval-shaped orbit cause the seasons as the hemispheres are thus tilted towards the Sun (summer) or away from it (winter).

**Solstices and equinoxes:** The spring and autumn equinoxes, 21 March and 22 September, are the two days in a year when the length of day and night are equal. These two days also herald the coming of spring and autumn in the northern hemisphere. In the southern hemisphere it is the opposite as it will be autumn in March and spring in September. The diagram on page 3 of the textbook, showing the position of the Earth from the Sun, helps to explain this.

The diagram also shows the summer and winter solstices, 21 June and 21 December. Solstice literally means 'Sun (sol) standing (stice)' but this is actually that point in the orbit when the Earth is farthest from the Sun. Look again at the diagram on page 3. When the northern hemisphere faces the Sun, the longest day is on 21 June. It is the other way round in the southern hemisphere which has the longest night on 21 June. When the southern hemisphere faces the Sun, the longest day is on 21 December, which means the longest night in the northern half.

### **Answers to questions**

1. The Earth has a round shape like a ball. It is called a sphere.
2. Rotation is the spinning of the Earth on its axis. The Earth's movement around the Sun is called revolution.
3. Seasons are caused by the Earth's revolution round the Sun and the tilt (the direction in which it leans; inclination) of its axis.
4. Places that are close to the equator are hot throughout the year.

5. Solstice: Each of the two times in the year at midsummer and midwinter, when the Sun reaches the highest and lowest points in the sky, marked by the longest and shortest days on 21 June and 21 December.

Equinox: The two times in the year when day and night are of equal length, on 21 March and 22 September.

## Work Page

- A
- 1 astronaut: a person trained to travel in a spacecraft
  - 2 revolution: moving or circling around another object
  - 3 orbit: the path of a planet
  - 4 axis: an imaginary line through the centre of the Earth
  - 5 equator: an imaginary line round the middle of the Earth
  - 6 hemisphere: half of a sphere i.e. the Earth
  - 7 equinox: when day and night are of equal length

B The students will do this themselves with reference to the diagrams in Lesson 1.

## Things to do

- The names of the astronauts who walked on the Moon are Neil Armstrong and Buzz Aldrin. The third astronaut, who stayed in the spacecraft, is Michael Collins.
- Students can search the Internet or the encyclopedia and do this exercise individually.

# Lesson 2 Climate

## Discussion points

- What is climate?
- Factors that affect climate
- Climatic regions
- Climatic maps

We learnt in Book 3 that the word 'climate' means the typical weather of a region over a period of time. For example, we can say 'Pakistan has a warm climate'. On the other hand, though the word 'weather' also describes the climate, there is a difference. It is incorrect to say that 'Pakistan has a warm weather'. We could say that, 'Pakistan has warm summers and cool winters' or that 'Pakistan has warm weather all the year round, with only a mild winter.' Generally, weather is the day to day changes in temperature and the rain or dry, sunny days, in a place.

## Suggested activities

- Once the students have registered the difference between the two words, ask them to write two sentences to show you that they have understood their meaning and use. Then explain that climates can be of many different kinds: tropical (hot), temperate (not too hot, not too cold), wet (raining all the time), humid (hot and steamy), and arid (dry and dusty, with no rain) as well as very cold as in the polar regions or on high altitudes.
- Ask the students to show the location of Pakistan on a world map or globe. Tell them that Pakistan is located between  $24^{\circ}$  and  $37^{\circ}$  north of the equator. You could ask the students to recall what they learnt about the equator in Book 3. Also show them that Pakistan is located in the northern hemisphere, it has a generally warm climate with mild winters and hot summers; but its northern



areas, with high snow-covered mountains, are very cold. The south of Pakistan, with its coastline along the Arabian Sea, is cooled by the sea breeze in summer.

**Factors influencing climate:** Explain how the climate of a land is affected. Show students a relief map of Pakistan (a map that shows physical features) and explain the physical features. Then tell them that the first factor that affects climate is the position of the country on Earth. Point to the globe and ask the students to look at the equator and the curve of the Earth, upwards and downwards from the equator.

### **Suggested activities**

- Show them that areas away from the equator are also away from the Sun's rays and the temperature gets cooler. Regions nearer to the North and South Poles become colder and colder, until temperatures drop to almost freezing point or even below.

This means that the climate of a country is affected by its position on Earth, in relation to the Sun. The Sun's heat is greatest at the equator (due to the outward bulge of the land mass of the Earth), and least at the poles.

There are other factors too that influence climate. Explain each factor one at a time or the students will be lost in a maze of information that they cannot absorb or comprehend.

The next factor is a country's proximity or closeness to the sea. Countries close to the sea have the advantage of cool sea breezes blowing over the land and cooling it, thus dropping the temperature considerably. For example, the city of Karachi in Sindh is situated on the Arabian Sea coast. The days are very hot in summer, but from late afternoon onwards the temperature drops as the cool sea breeze begins to blow inland.

Cities that are landlocked—surrounded by land—tend to become oppressively hot in summer as wind routes are blocked by landforms such as mountains or hills. Some places are surrounded by hills and cannot catch the rain, such as Quetta in Balochistan. They may be protected from strong rains but generally have a dry climate.

Altitude or height from sea level is another factor that affects climate, because air temperature drops as the height increases. Thus mountainous regions generally have a cold climate, such as Pakistan's northern areas. It would be interesting to show students a picture of Mt. Kilimanjaro in Tanzania, Africa—it is almost on the equator, but its peak at 5892 metres is always snow-capped.

### **Suggested activity**

- Ask them to point out some of the landlocked cities in Pakistan on a map; then more on a world map or globe. Let students observe and comment on the climate of other countries and cities near to and away from the sea. Let this be an interactive session as they will gain more from a discussion like this, than from merely reading the textbook.

Now tell the students about deserts and show them the location of some of the deserts on different continents on the world map—the Sahara Desert in Africa, the Gobi Desert in Mongolia, the Atacama Desert in South America, and the Mojave Desert in Mexico. Since there is no water in deserts, the sand is dry and infertile; therefore no crops or trees can grow; plants found in desert regions are tough and thorny. That is why deserts are vast, inhospitable wastelands, where people cannot live. Deserts are only home to certain reptiles such as lizards, iguanas, and snakes, and birds like vultures.

### **Suggested activity**

- Ask them the names of the deserts in Pakistan. Tell them about the Thar Desert in Sindh. There is often a drought (no rainfall, therefore no water) and the people of Thar go through terrible hardship: there is no water to grow crops, no grass to feed their livestock, so many of them have to move with their cattle in search of pasture. However, when it does rain, this region blooms: there is greenery all around and rainwater collects in shallow pools.

**Forests** play a major role in the climate of a region because they attract rain. Ask the students if they have visited Murree in the north of Pakistan. Its height is over 7000 feet above sea level, so its climate is cooler all the year round than cities at sea level; it rains all year round because its forests of tall trees and vegetation attract rain. Therefore, in the heat of summer, it is the ideal place to go for a vacation for relief from the sweltering heat. There are other such hill stations, also, like Ziarat in Balochistan. However, the forest cover in northern Pakistan has decreased sharply due to careless chopping down of the trees. This not only affects the rainfall—which has reduced—but also causes flooding when rains come down heavily.

**Monsoons:** Explain what monsoons are. When and where do they take place? The word ‘monsoon’ can be traced back to the Arabic word ‘mausim’ meaning season. The seasonal, rain-bearing winds in South Asia are referred to as the monsoons. Monsoons take place in the subcontinent in summer. These winds blowing inland from the south-west, over the Indian Ocean and Arabian Sea, bring heavy rainfall mainly to India, Bangladesh, and Pakistan. At one time, the arrival of the monsoons was predictable to the day and date in June; however, with changes in the global weather patterns, Pakistan does not always have a defined rainy season. There are a few showers through July, though cool and pleasant cloudy weather continues into August.

### Answers to questions

1. Climate is an important factor because it has a great effect on people’s lives, plants, crops, and on the land in an area.
2. The south of the country is warmer.
3. The higher a place is, the colder the atmosphere (air) becomes.
4. The climate of such places becomes dry because rainfall decreases.
5. Rainfall is an important factor as it encourages plant growth and, secondly, it cools and balances the temperature.
6. Places close to the sea have the advantage of cool sea breezes blowing over the land and cooling it, thus dropping the temperature considerably.

### Work Page

- A
- 1 Cross
  - 2 Tick
  - 3 Tick
  - 4 Cross
  - 5 Cross
  - 6 Cross

B 1 All three types at different times of the year.

C The students may do this exercise on their own with guidance from the teacher, where required.

### Things to do

- The chart shown on page 8 is very comprehensive. Students can work to prepare their own calendars. The squares for the days and dates should be large enough to write or draw the weather of the day, viz. cloudy, sunny, rainy, etc. Ideally, the temperature should be written down as well, in Celsius. This information can be noted from the daily newspaper or from the local television news programmes.

# Lesson 3 Our country

## Discussion points

- Location of Pakistan
- Variety of physical features in Pakistan
- Pakistan's rivers, plains, cities
- Climatic regions of Pakistan

You should expect the students to participate very actively in this lesson, as they will feel most comfortable discussing their country, which will be a familiar topic for them.

Begin the lesson by locating the position of Pakistan on the world map/globe. Point out the neighbouring countries, the names of the Indian Ocean and the Arabian Sea, and of the mountain ranges in the north of Pakistan. Now the students know where they stand, speaking literally and figuratively!

## Suggested activities

- Ask the students if they know how old Pakistan is and when its birthday is.
- Ask them how they celebrated its birthday last year, if they can remember.
- Ask them if they know about the colours of our flag, the names of our national flower, our national sport, their favourite sportsman, and pop star, etc. Make the lesson lively and interactive; get the maximum response from them. Let them put up their hands if they know the answers. Call them up to the board and ask them to draw things.
- Ask them if they know the words of our national anthem and if they could sing it to the class. Sing along with them, to ease their shyness and give them confidence.

## Suggested activity

Tell them about the four provinces.

- Ask if any student can speak Sindhi, Balochi, Punjabi, and/or Pashto. Then ask them to say a sentence or two in that language.

Tell them our religion is Islam, but that people of other faiths also live here, like Christians, Parsees, and Hindus. However, we are all proud to be called Pakistanis.

Tell them that Pakistan has all types of climates and physical features. It has hot weather, cold weather, rainfall, deserts, mountains, plateaus, lakes, and valleys.

Talk to students about all that our country has to offer—instil pride and patriotism in the children. They will talk about the problems we face, but explain that all countries have problems—the important thing is to make an effort to put things right and for each one of us to do the best we can for our country and ourselves.

Tell the students about the fruit and vegetables which are naturally grown in Pakistan and are better than anywhere else in the world. They are flavourful and tasty; our *kinnoo* oranges and, especially, mangoes are world-famous, and are exported all over the world.

## Suggested activity

- Ask the students if they know the names of the rivers that flow in Pakistan. Tell them that the River Indus is the lifeblood of the country. It gives us life for because of it, we can grow crops and have water to use in our cities, towns, and villages.

Explain that Pakistan is still a developing country and that there are many small cities and towns that are still growing. Of the five or six major cities of the country, Karachi is the largest in terms of area and population, while Lahore is the most historic and most green, and Islamabad, the capital, is the most well planned.

Explain that from the point of view of vegetation and climate, Pakistan is divided into two distinct regions, each with its own special features, the Western Highlands and the Indus Plains. This affects the economy and lifestyles of the population of these areas.

### **Suggested activity**

- Ask the students to name some towns and cities in the Indus Plains, which are well provided with water from the River Indus and, going further up, to name towns and cities within the Western Highlands. They should be able to tell you the provinces to which these cities belong.

### **Answers to questions**

1. Iran in the west, Afghanistan in the north-west, China in the north-east, and India to the east.
2. The Arabian Sea.
3. Main deserts of Pakistan: Cholistan Desert, Kharan Desert (in Balochistan), Thal Desert, and Thar Desert.
4. River Indus, which starts in the Himalayas, is joined by the Jhelum, Chenab, Ravi and Sutlej rivers at Panjnad in southern Punjab.
5. South of Karachi.

### **Work Page**

#### **Fact Sheet**

- A
- 1 Sindh, Karachi
  - 2 Punjab, Lahore
  - 3 Balochistan, Quetta
  - 4 Khyber Pakhtunkhwa, Peshawar
  - 5 Gilgit-Baltistan, Gilgit
- B Five countries larger than Pakistan:
- 1 China
  - 2 Kazakhstan
  - 3 Russia
  - 4 Mongolia
  - 5 Saudi Arabia (India and Iran are also larger than Pakistan)
- C Five countries smaller than Pakistan:
- 1 Afghanistan
  - 2 Uzbekistan
  - 3 Tajikistan
  - 4 Bangladesh
  - 5 Sri Lanka (Nepal is also smaller than Pakistan)

### **Things to do**

Prepare a relief map.

- Guide the children in drawing a relief map of Pakistan. They will need some clay, soil, sand, small stones/pebbles, a sheet each of blue and green glazed paper for the rivers and lakes, and sea respectively; a piece of plywood (60 x 120 cm) as base, and some paints. An outline of the map of Pakistan can be traced onto newspaper, cut out and pasted onto the plywood. The clay should be moistened and mountain ranges built up with it. Soil and stones can be sprinkled over the newspaper to resemble the earth or the terrain, while sand will show the desert areas.

Blue paper can be cut into thin strips and these can be placed to represent the River Indus and its tributaries. The green paper should be used to show the Arabian Sea. Small plastic plants and trees could represent the greenery.

You will have to help the students with this project and devote at least two to three periods to the preparation of this relief-map project. At the end of it, put the completed project up for display for all to see. It will fill the students with pride and a sense of achievement.

If you turn to Lesson 4, there is a map that shows the Western Highlands in detail. This will be a help to the children in placing their materials correctly on the map.

## Lesson 4 The Western Highlands

### Discussion points

- Main features of Western Highlands
- Mountain ranges in Pakistan; distinctive features (peaks, passes)
- Plateaus in Balochistan and the Punjab

In the previous lesson, we learnt that Pakistan is separated into two distinct regions in respect of vegetation and landforms: the Western Highlands and the Indus Plains. With the aid of the maps on pages 13, 15, and 17 of the textbook, explain about the area covered by each of these regions. Put up a relief map of Pakistan with the main towns and cities marked on it to show the towns and cities, rivers, hills, and mountains that form part of these regions. For example, they should be able to say that the province of Balochistan falls in the region of the Western Highlands and that the Balochistan Plateau is also part of this region.

The key words in this lesson are: range, plateau, barrier, mountaineering, peak, sea level, and plains.

### Suggested activities

- After the lesson has been explained, ask the students to make a list of the provinces, cities and some towns, rivers, and mountain ranges that make up the Western Highlands. This is a way in which their mind's eye can see the land area of Pakistan as a whole, and in parts.
- Explain the purpose of the map key and ask the students to study the key to the map on page 12. They could then draw a rough sketch of the map themselves or trace its outline and colour the areas according to the key. This will help them to remember the areas by the colours they represent.

**The Himalayas:** Ask the students if they have heard of the Himalayan mountain range. Explain that when there is a line of mountains close to each other, it is known as a range. This historically famous range begins from the Margalla Hills in Pakistan; these foothills are from 1000 to 2000 metres above sea level, in Pakistan, and are known as the Sub-Himalayas. The word 'sub' really means under or below; the Sub-Himalayas are so called because they are considered lower than the rest of the Himalayan range. The Lesser Himalayas, from 2000 to 4500 metres above sea level, and the Greater Himalayas from 4500 to over 8000 metres above sea level, are much higher—gigantic—compared to the Sub-Himalayas. The beautiful, cool, green hill stations, like Murree, Nathia Gali, Ghora Gali, and Abbottabad, etc. are part of the Sub-Himalayas.

### Suggested activity

- If possible, get an enlarged printout of a relief map of Asia and explain how the huge mountain ranges in South Asia were created when the subcontinent's land mass moved into the Eurasian Plate. It will interest the students to learn that these mountains are still growing! Their pace of growth is 9–10 cm per year—about the same rate as human hair growth.

These mountainous regions are largely unpopulated due to their inaccessibility, difficult terrain, and extreme climate. However, people do live around the hill stations and the lower slopes where work can be found in tourism, and farming can also be carried out to some extent. The Greater Himalayas form an almost solid wall of mountains (ask them to look at a physical map of Asia for this observation) from west to east, high above Pakistan, India, and Nepal. These are the highest mountains in the world with a hundred peaks above 7200 metres; these impressive mountains are snow-covered all year round and Mount Everest in Nepal, the highest mountain in the world, continues to attract climbers and tourists from all over the world.

Tell the students that people climb mountains as a challenge to themselves, their physical fitness, and their endurance. Mountain climbing is a dangerous sport and everybody cannot do it. There is a danger of being caught in a blizzard (terrible snowstorm), getting frostbite (when the fingers and toes are so frozen that they can break off or become infected), falling into crevasses (deep chasms in the mountains), loss of breathing capacity, and snow blindness. You have to be very fit and very brave to climb a mountain. The people of Gilgit Baltistan are skilled at this, and Nazir Sabir is the first Pakistani to have scaled the Everest.

### **Suggested activities**

- Ask the children to test their heart rate and breathing when they climb a long flight of steps. They will be breathing heavily, their hearts will be pounding hard and they will be quite tired by the time they reach the top. They can get an idea of how a mountain climber feels when climbing a high mountain. The air becomes rarefied (contains less oxygen) as s/he climbs higher and higher and breathing becomes difficult as the climber struggles to put each foot forward.
- In order to be able to inculcate a spirit of wonder, adventure, and enterprise in the students, arrange for a viewing of suitable National Geographic and Discovery videos. There are many wonderful and fascinating television programmes about mountaineering, nature, and wildlife that are shown regularly.

In the Karakoram Mountains, north of Pakistan, are Mt. Godwin Austen, known as K-2 (8611m) and also the Karakoram Pass and the Karakoram Highway. This highway through the Khunjerab Pass is known as the eighth wonder of the world because it has been built at a height of almost 4700 metres. This is also known as the famous Silk Route which connects Pakistan to China. Chinese traders, in olden times, used this route to sell their famous silks and other products in Europe, South Asia, and in the countries along the way.

- Ask the students if they know the names of the other 'wonders' of the world. The Taj Mahal in Agra, India, built by the Mughal Emperor Shah Jahan, in memory of his beloved wife Mumtaz Mahal, is one. The list of the wonders of the world has recently been revised by popular consensus. The other 'wonders' are:
  - 1 Chichenitza Temple Pyramid, Mexico
  - 2 Statue of Christ the Redeemer, Rio de Janeiro, Brazil
  - 3 The Colosseum, Rome, Italy
  - 4 The Great Wall of China
  - 5 Macchu Picchu, Peru
  - 6 Petra, Jordan

The Hindu Kush mountain range is to the north-west. Tirich Mir and Noshaq are the highest peaks in this range and there are passes that connect Pakistan to Afghanistan. To the south are many ranges, which cross Chitral, Swat, and Dir. The Safed Koh and the Waziristan ranges form a wall between Pakistan and Afghanistan. The famous Khyber Pass, which links Peshawar to Kabul, is located here. Tell the students about the history of the Pathans, a brave, fearless people: many of them are very fair-skinned and have light hair and eyes like the Europeans.

The Sulaiman-Kirthar range of mountains separates Sindh and Punjab from Balochistan. The Balochistan Plateau lies to the west of this range. To the south are lakes and smaller rivers, many of which flow into the Arabian Sea. The Potohar Plateau in northern Punjab is about 600 metres above sea level. It lies between the Jhelum and Indus rivers.

### Answers to questions

1. In all the four provinces of Pakistan—Sindh, Balochistan, the Punjab, and the Khyber Pakhtunkhwa, and in the Gilgit-Baltistan territory.
2. K2 or Mount Godwin Austen, at 8611 metres above sea level, is the highest mountain in Pakistan. It is the second highest peak in the world.
3. The Potohar Plateau.
4. These are important because to cross the mountain ranges and reach another place, people have to go through these passes. These passes, especially the Khyber Pass, also have historic value.
5. Karakoram Pass, Khunjerab Pass, Lawarai Pass, Khyber Pass, Khojak Pass, Bolan Pass.

### Work Page

A The students should do this under your supervision.

- B
- 1 A glacier is a mass of ice and snow that slowly moves down mountain slopes. It can be called a frozen river.
  - 2 A pass is a natural route through mountains to transport people and goods.
  - 3 A low area between hills or mountains, typically with a river or stream flowing through it.
  - 4 An area of fairly level high ground.

### Things to do

- The children will collect pictures and information. Supervise them in displaying the information.
- Help students with the information about the Karakoram Highway. They can collect pictures on their own to prepare a board display.
- In addition, you can ask the students to find out if K2, Tirich Mir, and Noshaq have been scaled by any Pakistani mountaineers, and to list their names. The information can be had from the Internet or the nearest office of the Pakistan Tourism Development Corporation.
- Ask them about the highest mountain peak in the world, Mount Everest, and the two brave mountaineers who first scaled this peak, and in which year (Sir Edmund Hillary of New Zealand and Sherpa Tenzing Norgay of Nepal on May 29, 1953).
- The 50th anniversary of this famous expedition was celebrated in 2003. Maybe, you could initiate a class project, where the students could collect news items and photographs from newspapers, sports magazines, and the Internet.



# Lesson 5 River Indus and its plains

## Discussion points

- The importance of water
- The importance of physical features (landforms, rivers, plateaus, plains, deltas) in the economy and lifestyle of a people
- River Indus and its tributaries are the lifeblood of Pakistan.

People need water to live: to drink, to cook with, to wash ourselves and our clothes and utensils.

Ask them how the land needs water—to grow crops, trees, plants, vegetables, fruit, and flowers.

Plants and flowers may not be as essential as crops or trees, but everything in nature has a purpose.

Animals also need water to survive, to drink and to bathe, and we would have no marine life without water. There would be no fish, whales, dolphins, turtles, etc. nor place for the vast variety of beautiful sea creatures to live.

Since ancient times, people have preferred living near rivers as they supplied all their needs.

Civilizations grew and flourished on the banks of big rivers. So a river is indispensable to human life.

Now explain how rivers start and how they continue to have a steady supply of water; also tell students that low or no rainfall makes water levels in the rivers fall, while heavy rains lead to floods.

Tell the students that the mighty River Indus is the principal source of water for our country. It gives us life. It flows for almost 3000 kilometres from its source near Lake Mansorawar in the Himalayas. Starting as a rushing torrent in the mountains, it flows down the plains of the Punjab, where it is joined by its tributaries at Panjnad, and then its course is through Sindh till it widens into a delta and falls into the Arabian Sea, south of Karachi and west of Thatta.

Show them the delta on a map of Pakistan.

Tell the students that the Indus Plains are the most fertile land in Pakistan. Because of the abundant supply of water and good soil, the Indus Plains are the best agricultural land in the country. That is why the Punjab is called 'the granary of Pakistan'. Explain the meaning of 'granary': a place where wheat and other grains are stored.

## Suggested activities

- Ask the students about other uses of a river; tell them about dams. How does a dam keep water from flooding the surrounding areas? Also explain how and why canals are built, and what benefits they have. Ask students to find pictures of the famous dams of the world like the Aswan Dam in Egypt and the Tarbela Dam in Khyber Pakhtunkhwa.
- Check the students' knowledge, if they know the names of the other great rivers in the world. Ask them to find out for homework: which is the largest river in the world? In which country is it found? Into which sea or lake does it flow?

## Answers to questions

1. High up in the Himalaya Mountains, from a lake called Mansorawar.
2. Canals carry the river water to many places.
3. The River Indus starts high up in the Himalaya Mountains near a lake called Mansorawar. From here it flows west through a deep valley between the Himalayas and the Karakoram range, until it reaches Pakistan. It is joined by many streams and rivers such as the Gilgit and the Hunza. It begins its long journey south through Pakistan and then turns south at a point about 200 kilometres north of Islamabad. It winds downhill, twisting and turning, till it reaches the Potohar Plateau. From here it continues into the Punjab plain to a place called Kalabagh.



4. By the time it reaches the plains, the river spreads out into a much broader channel, about 16 kilometres wide. Its course becomes much straighter as it flows through the plains.
5. The deserts are on the eastern and south-eastern border of Pakistan, where the plains are not drained by any river.

## Work Page

A Students to do this on their own; but do help them where required.

- B1:
- 1 A delta is a triangular alluvial tract of land at the mouth of a river.
  - 2 A basin is a bowl-shaped tract of land drained by a river and its tributaries.
  - 3 A tributary is a branch of a large river, which joins in from a different direction.
  - 4 A gorge is a steep, narrow valley or ravine.

B 2: In Pakistan, these physical features can be found as follows:

Delta: Sindh

Basin: Punjab

Tributary: Punjab, Khyber Pakhtunkhwa (River Kabul)

Gorge: the Indus gorge (Gilgit-Baltistan)

## Things to do

- Students will do this exercise themselves.  
The river that is close to Lahore: Ravi
- Lakes: Manchhar Lake (Sindh)  
Hanna Lake (Quetta)  
Kallar Kahar (Punjab)  
Rawal Lake (Islamabad)

# Lesson 6 The soil and agriculture

## Discussion points

- The importance of soil and climate for agriculture
- Sources of water (rainfall, rivers, irrigation) for agriculture
- Agricultural regions of Pakistan
- Types of farming—food crops, cash crops, livestock and poultry

Explain that if a country is agriculture-based, it must have good, fertile soil and also enough water from rainfall, rivers, and through irrigation, for crops to thrive.

In Lessons 4 and 5, the students learnt that Pakistan is divided into two distinct regions in terms of landforms and vegetation—the Western Highlands and the Indus Plains. Go back to those lessons; look at the maps again and the colour key. Balochistan has very little agriculture. Ask the students why this is so. The Punjab has the best soil for growing crops because the rivers deposit new soil on the banks when they flood. Water is available through the canals that irrigate the land.

Explain that to be suitable for growing crops, soil must be safeguarded from erosion. Erosion means 'wearing away'. Wind and water are the main factors in the erosion of rocks and soil. Topsoil is the most fertile soil and this can be eroded or 'worn away' by heavy rainfall. If farmers can control erosion, the soil will be good for crops all year round.

Another way in which water damages the soil is when it does not drain out properly and the soil becomes waterlogged. When the water finally dries out, salt is often deposited in the top layer, making it unfit for agriculture.

- Explain how forests can stop soil erosion. The roots go deep, holding the soil together. If trees are cut down carelessly for various uses, such as to build houses, make furniture, burn for firewood, etc. the topsoil is eroded by exposure to wind and rain. So the solution (answer) is to plant more trees to replace ones that have been cut down. Tell them that all things in nature are linked together; one affects the other.

Pakistan is a farming or agricultural country; ask the students to name some of the crops grown here. Ask them what they eat—chapatis, dal, rice, meat, fish, vegetables, and fruit. Ask what chapatis are made from—wheat flour. Wheat is a major crop grown in Pakistan. Rice is grown in paddy fields in Sindh and the Punjab. Pulses or lentils (dals) as well as millet, maize, mustard, corn, and sugar cane are grown in Pakistan. Meat, milk, and dairy products are obtained from livestock farming, i.e. cows, buffaloes, sheep, and goats.

The best vegetables and fruits come from Gilgit Baltistan, Punjab, and parts of Sindh. Malir, an area just outside Karachi, grows vegetables that are supplied to the city, and fruits such as guavas and bananas. Sindh and the Punjab are known for the variety of mangoes grown here.

We also grow cotton, which is made into fabric and exported to other countries, tobacco for cigarettes, and jute to make gunny bags.

### **Suggested activities**

- Ask the students to bring small quantities of dals, rice, wheat grain, corn, lentils or beans to class. Let them look and observe and touch the items that they probably never see in this raw, uncooked form.
- Ask them in what other ways we use the animals we rear in Pakistan. We know that they provide us with meat and milk. Tell them that animal skins are ‘tanned’ into leather for shoes, bags, and clothes. ‘Tanning’ is the process by which these skins are made into leather. These animals are also used on the farms to pull ploughs and turn waterwheels (oxen); they are used to pull carts for goods and as transport (horses, camels, donkeys).

### **Excursion**

Arrange an excursion for the students to visit a farm or village outside the city. They will see how some of our rural population lives without the conveniences available in big cities, but it also has a peaceful albeit slow-moving lifestyle.

### **Answers to questions**

1. In Balochistan, in some parts of Sindh and Khyber Pakhtunkhwa, and in the deserts, because there is very little water.
2. The most fertile soil is called alluvial soil. It is found in the plains, around the great rivers. When rivers flood and overflow their banks, they deposit good soil on the land. This is alluvial soil.
3. For successful agriculture, rich and fertile soil and lots of water is needed.
4. Livestock farming provides us with meat and milk. Animals are also used to pull ploughs and carts, turn waterwheels and for other farm work. Poultry farms provide us with fresh eggs and chicken for meat.
5. Trees have long roots that hold the particles of soil together, and slow down the process of erosion. Thus control of erosion leads to better soil being available for farmers to plant crops.

## Work Page

### A Food crops

- 1 Wheat
- 2 Rice
- 3 Maize
- 4 Millet

### Cash Crops

- 1 Cotton
- 2 Sugar cane
- 3 Sugar beet
- 4 Tobacco
- 5 Jute

### C 1 Fertilizers

- 2 alluvial
- 3 cows, buffaloes, oxen, and even camels and donkeys (students may select any three)

### B Answers in horizontal sequence:

- 1 Green—valleys between rivers
- 2 Brown—snowy areas
- 3 Brown—deserts
- 4 Green—delta
- 5 Green—alluvial soil
- 6 Brown—mountains

## Things to do

- The teacher can provide reference from *Oxford Project Atlas for Pakistan* to answer this question.
- Activities 2 and 3 can be done as homework.
- The students could grow their own vegetable garden. Their mothers can help them buy seeds for onions, potatoes, tomatoes, and for some herbs like *dhania* (coriander), *pudina* (mint), and *soya* (dill). These can be planted in pots or wooden boxes, and tended. They will be in wonder when the first shoots peep out of the soil, and filled with excitement when the first vegetable sprouts!

# Lesson 7 Forests

## Discussion points

- How do forests affect the climate of an area?
- What are the different types of trees found in Pakistan?
- Why are trees cut down?
- Explain the need for conservation.
- Name the uses of different types of wood.

In the cycle of nature, sunshine, clouds, rain, and air in the atmosphere work closely together with the physical features of the land to produce the ideal climate. Trees and green plants attract rain and give out oxygen. We, and all living things, need oxygen to breathe and to live. The land needs rain so that (a) we can grow crops (b) our livestock can feed on the grass and plants that grow on the land and (c) our rivers have a steady and sufficient supply of water for our needs.

## Suggested activities

- Ask the students to look at the map on page 24 of the textbook. It shows the location of forests in Pakistan by the use of colours. Tell them to look at the colour key and match the colours with the corresponding areas on the map. They will see that we have a variety of vegetation in our country

from north to south. For example, alpine forests are found in Chitral, Dir, Swat, and Gilgit; coniferous forests are found mainly in the Western Highlands i.e. Sub-Himalayas and in Kaghan, Swat, etc.

- Ask the students to point out these places on the map of Pakistan. On an outline map of Pakistan, the students can mark the locations and write the names of places (towns, cities, provinces) where a particular type of forest or vegetation is found. This will help to reinforce their learning; they will know where the following types of vegetation are found: coniferous forests, dry forests, thorn or *rakh*, mangrove swamps, riverine forests, and plantations.

Explain that there are many things in nature that are of use to human beings. Trees are one such thing—discuss the uses and benefits of trees. They not only provide shade, wood, and fruit, but also protect the soil as we learnt in Lesson 6. Talk about the uses of wood. It is a very useful resource and abundant in some regions. Explain that while humans may use trees and wood, this must be done carefully. Saplings must be planted to keep the forests alive and to replace the trees being cut down as it takes many years for them to grow and for their wood to mature.

This is a good point to talk about conservation also as forests are home to a variety of plants and wildlife. Cutting down forests disturbs this natural balance and is a long-term loss for man and nature. Most countries are now trying to conserve their natural resources such as water, marine life, forests, and animals from becoming extinct. All these are precious and necessary to life on earth. Overfishing is reducing certain species of fish in the seas; animals are being killed for their skins, tusks, and bones; water is being used wastefully. If all this continues, we will use up our resources and, eventually, we will suffer.

Uses of wood: It is used in construction for beams and as ply for walls and flooring; it is used as fuel in remote rural areas; it is used for making furniture, and to make paper. The students will be surprised to know that the pages they are turning are made from wood. Give a short insight into the production of paper from the first stage. Trees are cut down, then the logs are floated downriver to paper mills. The bark is removed and the logs are cut into smaller pieces. The wood chips are converted to ‘pulp’ in machines where chemicals are added to it. This pulp is fed into paper-making machines and pressed out into sheets. The sheets are dried in another machine, then rolled out into huge rolls, and sold in the market.

### **Suggested activity**

- Ask the students, one by one, to tell the class what favours a tree gives us. They should say a shady place under a hot sun, pretty leaves and flowers, wood and bark, fruit and nuts.

### **Answers to questions**

1. Silver fir, juniper, and birch.
2. Due to the very cold climate above a height of 4000 metres, trees do not grow very tall.
3. It gives out a lot of oxygen and is also used to make medicines.
4. In the western part of Balochistan and over most of Punjab and Sindh, there are thorny hardwood trees such as acacia and tamarisk.
5. Forests are important because trees give us wood and bark, shade, attract rain, give us flowers, fruits and nuts; they are home to birds and small animals like squirrels; their roots protect the soil.

### **Work Page**

A 1 Alpine forests’ location: Chitral, Dir, Swat, and Gilgit

Types of trees: silver fir, birch, juniper, alpine scrub

2 Coniferous forests’ location: the mountains of the north and parts of the hills of Balochistan

Types of trees: fir, spruce, *deodar*, *kail*

3 Dry forests' location: the Potohar plateau region, around Jhelum, Rawalpindi, Attock, Mansehra, Abbotabad, Kohat, Peshawar, and in the Sulaiman range in Balochistan

Types of trees: evergreens like *phula* and *kao*; also chestnut, walnut, oak, and juniper

4 Thorn and *rakh* location: the western part of Balochistan, most of Punjab, and Sindh

Types of trees: hardwoods like acacia and tamarisk

5 Plantations' location: near rivers and canals or close to a dam

Types of trees: eucalyptus, *shisham*, *babul*

6 Riverine forests' location: close to rivers, especially in Sindh (*bela* forests)

Types of trees: mainly *babul* and *shisham*

B 1 *Babul*

2 Plantations

3 Wheels and oil presses and ploughs

### Things to do

- This activity encourages observation. Get the students to note the different trees near and around the school, and their homes. Tell them about the different shapes and heights. Some trees spread out widely as they grow. Like the *neem*, mango, and tamarind trees. Some grow tall and straight like the pines, firs, and some species of coconut palms. Some trees, like acacias and some fruit-bearing trees do not grow very tall.
- Try and get pictures of different kinds of trees so that the children can identify them. Heights can also be noted in comparison with buildings nearby. Children should not pluck the leaves off trees. They should collect the leaves that fall naturally. These can be dried as instructed, then put in a scrapbook with a piece of clear tape. The name of the tree should be written below the leaf.

## Lesson 8 Water and its uses

### Discussion points

- How important is water?
- Where does water come from?
- Understanding the water cycle
- How does water affect the weather?
- How can we control and channel our water supply?

Water is essential to human life and to all living things on Earth. Seventy-one per cent of the earth is covered with water. Two-thirds of the human body contains water. If we become 'dehydrated', that is, if the water in our bodies dries up or escapes, we can die.

The two sources of our water are salt water from the oceans and seas, and fresh water (non-salty) from precipitation (rain, snow), rivers, and lakes on land.

### Suggested activity

- Ask the students to list how many times a day they use water, starting with washing up in the morning, to drinking it when they are thirsty, to bathing and swimming. This will help them to understand how essential water is.

Explain the water cycle with the help of the diagram on page 28 in the textbook. Water from the surface of the oceans, seas, and lakes evaporates due to the Sun's heat and rises up as water vapour,

condensing to form clouds. Clouds release the moisture as rain or snow back to the Earth's surface, and so the cycle continues. Students will be surprised to learn that the amount of water on Earth today is the same as it was since its creation—it simply goes around in the water cycle.

Where some places do not have direct access to water, it is necessary to 'store' it in tanks and reservoirs and to control the movement of rivers by building dams across them. The movement of water is controlled by huge gates that open and close the water supply as required. Show them a picture of the Tarbela Dam which controls and channels the water of the River Indus or the Warsak Dam, near Peshawar. Dams are also utilized to generate power, i.e. electricity.

How can dams be used to create electricity?

Electrical power is generated when the gates of a dam are opened to allow water to rush through the turbines, as explained in the textbook. The generator changes the power created by turbines into electrical power. This is called hydroelectricity.

In the cities, wells and tube wells are quite uncommon. They are found in rural areas near villages and on farmland to water the crops. In very dry areas, tube wells are the only source of water for miles.

### Answers to questions

1. Five uses of fresh water: drinking, cooking, bathing, washing clothes and utensils, gardening, growing crops.
2. Rain, snow, glaciers, rivers, lakes.
3. They are able to have several uses at the same time, such as dams.
4. Wells are really large holes dug in the ground to store water. A tube well is made by digging very deep wells in the ground. A tube or casing is put into the hole. Water from many hundreds of metres below the surface is pumped up by electric or diesel pumps.
5. Water is stored in dams, reservoirs, and tanks.

### Work Page

- A
- 1 A place where water is stored, especially an artificial lake.
  - 2 A slowly moving mass of ice formed when snow piles up and is compacted on mountains or near the poles.
  - 3 A dam is a wall built to hold water back
  - 4 An artificial barrier across a river, a dam
  - 5 Something that can be used, an asset
  - 6 An artificial waterway allowing the passage of boats inland or carrying water for irrigation
- B Students can do this for homework with reference to the diagram on page 28.

### Things to do

- 1 Warsak Dam: River Kabul  
Tarbela Dam: River Indus  
Mangla Dam: River Jhelum
- 2 Children will do this activity in groups.
- 3 Sea water is a source of moisture for the rain clouds. It is home to a huge variety of marine life. Sea water contains salt which is used as a preservative for food, e.g. meats, and for tanning hides and skins. Salt also has medicinal uses. Salt from the sea contains iodine which is very important for the human body.

# Lesson 9 Power, minerals, and industries

## Discussion points

- What does an industrialized country need?
- From where does Pakistan get or produce its 'power' or electrical energy to run its industries?
- What are minerals?
- How many kinds of 'power' are there?
- The different kinds of industries in Pakistan

Explain the process of the development of a country. Just as humans progressed from being cavemen to present-day man, so did farming or agricultural communities grow to becoming industrial communities. 'Industry' means to make or manufacture things on a large scale. Science and technology (new ways and methods of improving old or outdated things) play a large part in making a country industrialized. We use our professional people who are trained as engineers and scientists, chemists and physicists, to develop new techniques and new inventions of machines to reduce time and money by operating a machine instead of doing things manually.

Give the students an example of this. Tell them that in the olden days, the power of animals was used to plough the fields, but today in the rich agricultural countries, tractors do this work much faster and more efficiently than an animal-drawn plough. Though animals are still used in many rural areas of Pakistan, those farmers who can afford them, also use agricultural machinery like tractors, harvesters, and threshers. Also explain that on small farms animal-drawn ploughs are easier to use. Mechanical farm equipment requires a lot of space to move around.

How is power produced? We read about hydroelectric power in Lesson 8. We also have nuclear or atomic power, solar power (energy from the sun), wind power, and biogas.

## Suggested activity

- Ask the students if their fathers have electric shaving razors. Tell them to calculate the time it takes for them to use a manual razor as compared to an electric razor. They will see that the electric razor will naturally do a faster and more thorough job of shaving. Give the students all sorts of examples of the triumph of machines over man: robots in car assembly plants; the food processor instead of the pestle and mortar and the grinding stone (*sil batta*); the car over the horse, etc.

Now, to minerals: the Earth is a treasure trove of wonderful things. It gives us fuels, like coal, oil, and gas; it gives us water and it gives us minerals, metallic and non-metallic. Of the metallic minerals, we use iron ore, copper, chromites, and manganese. Early man used iron and copper to make implements, weapons, and pots. Coal was used for smelting metals and, much later, to power steam engines. Of the non-metallic minerals, we get rock salt from the earth, marble, precious and semi-precious gemstones, limestone, and soapstone.

## Suggested activity

- Ask the students to name some more metallic minerals. Ask them to look at any jewellery or other items they may have and to guess the metal used. Next, ask them to find out the names of the precious stones (diamond, emerald, ruby) and semi-precious stones (aquamarine, tourmaline, garnet) used in jewellery. Tell them that garnet and emerald are mined in Pakistan, in Swat and other northern areas. Marble and onyx, used in construction and to make decorative objects, come from quarries in Khyber Pakhtunkhwa in beautiful natural colours and designs.

Tell them the meaning of the word 'manufacture'. Things or products that are made for the market in large quantities are 'manufactured'. Small industries, where things are made in small quantities are called cottage industries. Some products we use are 'imported' from other countries and many are made in Pakistan.



### **Suggested activity**

- Ask the students to name some of the items that are imported (chocolates, candy, shampoo, perfumes, etc.) and some that are made locally. We manufacture leather goods, jewellery, shoes and handbags, fabric for clothes, house and bedlinen, hosiery, etc.

### **Answers to questions**

1. A country that uses its own power and natural resources to manufacture various products is industrialized.
2. From the land, seas, and oceans. Pakistan also imports from other countries those raw materials for its industries which are not available locally.
3. The essential requirements for developing industries are funds, power, water, raw materials, machines, and workers.
4. Water is important for setting up industries as it is used during some parts of the production process.
5. Electrical power, nuclear or atomic power, solar power, gas, and sometimes, mainly biogas.

### **Work Page**

A Students can do this exercise for homework with reference to the atlas.

B hydroelectricity: electricity produced by water power  
turbine: a machine or motor driven by a flow of water, stream, or gas  
generator: a machine for converting mechanical energy into electricity

### **Things to do**

- For the first exercise, they could choose the marble, cement, furniture, or jewellery industries.
- This task can be preceded by brainstorming, but the teacher will need to help with the various questions here.

## **Lesson 10 Transport**

### **Discussion points**

- The importance of a good transport system for people
- The importance of a good transport system for a country's progress
- Different modes of travel and transport in Pakistan

Tell the students that the current lesson deals with 'communications' (in the plural form), which refers to different modes of travel and transport.

Test the students by asking them what the different modes of travel could be. They would first say 'walking'; travel by car, bus, wagon, pickup, etc., that is by road; going by train, by air, and by sea. Talk about the different types of transport available in each category. It would help to show them pictures of various old and new aircraft, ships, boats, etc. from the National Geographic magazine or other magazines.

### **Suggested activity**

- Ask the students which, they think, are the fastest and the safest modes of travel. The fastest are aeroplanes, then cars, then trains, and then ships.



**Roads:** Talk about the usefulness of roads to connect places. The Romans were known for building an excellent network of roads which enabled their armies to move across their empire. The ancient Silk Route connected China to the rest of Asia and Europe.

As people progressed and different types of transport were invented, the primitive roads were improved upon and proper roads, as we use today, were built. We are aware today of how roads are built for the movement of all kinds of vehicles. This will be a good point to let the students talk about road-building which is a constant and visible process almost all over the country.

A good road network is very important for a country as people and goods can be moved easily and swiftly. Also, roads can reach locations which do not have railway or air links to the rest of the country.

### **Suggested activity**

- Ask the students to name the road on which their house is located. Then ask them to name some of the main roads of their city, if they can.

**Railways:** Pakistan's railways are a cheap, though slower, means of communication for the people. To send cargo by train may take longer, but it is more economical. It is the same for passengers travelling from one city to another. Busy people prefer to go to their destinations by air. The train was known as the 'iron horse' when it was first invented. Today, it is a blessing for the masses of people commuting from the interior of the country to the cities, to work there.

France, China, and Japan have developed very fast trains, **Maglev**, that move by **magnetic levitation**.

Ask the students to bring photographs of these latest trains to class. They are very different from our trains. They are very modern, sleek, beautifully designed machines known as bullet trains, which move at bewilderingly high speeds. Find out and explain to students how these trains operate. France also has similar trains. The underground or subway trains in the USA, UK, and Europe are also a fast, convenient mode of transport.

Tell the students that there is a train service built under the English Channel that links the British Isles to the continent of Europe. How can a railway be built under a sea? Explain to them that first a strong waterproof 'tunnel' of concrete and steel was built and then the tracks were laid for the trains. (A lot of information on this project is available on the Internet as well.)

**Airways:** Aeroplanes are the fastest mode of transport today. Even among these, there are different types that are used for different purposes and have different speeds. Some can even travel at supersonic speeds i.e. they break the sound barrier by travelling faster than the speed of sound. Passenger planes like the Boeing 747 can carry up to 400 passengers, and even larger aircraft are now planned, with more seating capacity. The Airbus A380 can carry a load of 650 passengers!

### **Suggested activities**

- Students may be asked to find out how long it would take to reach from Pakistan to the UK by air.
- An interesting project would be to collect information about PIA and how it has grown as a national airline.

**Shipping:** This is another interesting way of travelling and before the invention of aircraft it was the only way people could travel overseas. The idea that a ship or boat can float on water, and take you from one place to another, is fascinating for young children. Tell students about big passenger liners of the past, luxury liners and yachts, huge cargo ships, and tankers. Transporting heavy cargo by ship is still cheaper than using other modes of transport.

### **Excursion**

If possible, a visit to a shipyard or a boatyard could be very exciting and informative for the students. They will see how boats and ships are made. Similarly, an excursion to an airport or a railway station, undertaken with proper security for the children, can be a very informative experience.

## Answers to questions

1. a) They link (join) all our villages, towns, and cities.  
b) They connect all the regional markets so that producers and consumers can reach the collection and distribution centres.
2. More people travel by road because it is cheaper than flying, faster than railways, and roads reach almost all remote corners of the country.
3. They were the two brothers, Wilbur and Orville Wright in 1903.
4. Islamabad, Karachi, Lahore, Quetta, Peshawar, and Multan (Gwadar, Faisalabad, and Sialkot are also listed as international airports).
5. Keamari and Port Mohammed Bin Qasim in Karachi, and a third port being built at Gwadar, Balochistan.

## Work Page

A Roads: trucks, cars, diesels, highway  
Railways: tracks, railway engines, steam  
Airways: Wright Brothers, PIA, aircraft, airport  
Ships: ships, harbour, Gwadar, ports, PNSC

- B
- 1 network
  - 2 steam
  - 3 1903
  - 4 248,000
  - 5 Karachi, Gwadar

## Things to do

- Largest passenger aircraft: Airbus A380  
Fastest aircraft: Concorde (retired), Lockheed's SR-71 (3370 kph) and American X-15 (7274 kph)  
Fastest train: Japan's JR-Maglev, speed: 584 kph; China's Maglev (500 kph); France's TGV (574 kph)

### Lesson 11 Communication

#### Discussion points

- What is communication?
- What are the different forms of communication?

To talk to someone, to write to them, to put your thoughts, opinion and ideas forward to anybody in the world, is communication. To let others know how you think or what you think, is how you 'communicate' with them. Speaking and writing are the best forms of communication. In this day and age, however, cellphones and email are the most common forms of communication.

Note that 'communication' also means modes and methods of travel and the kinds of transport involved, but in this book transport and communication are dealt with separately.

#### Suggested activity

- Ask the students what you are doing in class. You are 'communicating' their lessons to them by teaching, writing, guiding, and advising. It is often said, when two people stop talking to one another because they have disagreed over an issue, that the 'lines of communication' have been closed.

How do we stay in touch with people and events that are happening in the world? Radio, television, the newspapers, and the Internet communicate news to us. So do the telephone and the post office—through letters we receive from family and friends.

#### Suggested activity

- Ask the students, of all the modes mentioned above, which mode is the oldest. They should write down all the modes in the order in which they think they began to be used. Cave drawings, smoke signals and marks made on tortoiseshells were some of the earliest forms of communication besides messages conveyed by word of mouth. The Incas of South America used lengths of knotted rope called 'quipos' to send coded messages—the messenger was trained to decode them. When language scripts were developed, messages were sent in writing, and when paper became common, letters and documents became the most common form of recorded communication. The Pony Express in North America was an early postal service, where young men rode across the country delivering letters to the early settlers and pioneers. Ask the students to find out more about this and how people communicated in other civilizations.

Ask the students to write a letter to their friends and communicate the good news to them that they now know the meaning of 'communication'!

Talk about modes of communication no longer in use and the reasons for it. For instance, the radio has been replaced by television in many places because it is not a visual medium and is less popular.

#### Suggested activity

- How many students read the newspaper? Take a hands-up count. Compare this to how many of them watch television? They will all put up their hands. How many use the telephone? They will all put up their hands. For the last one, email, they may be using the computer mainly for games.

## Answers to questions

1. Communication means keeping in touch with someone through speech or writing.
2. The main means of communication are letters, the radio, telephone, the television, the newspapers, fax, and email.
3. By sending a money order by post.
4. A newspaper has to be read, and if a person cannot read, then it is better to listen to the radio and watch television, where news can be seen and heard.

## Work Page

- A
- 1 Television
  - 2 The post office
  - 3 The telephone

B Students to do this with your help.

## Things to do

- This can be done as a pair activity. It is an interesting exercise, for all the students probably watch television. They can discuss their favourite programmes and list them.
- Tell the students that stamp collecting is called philately. Ask them if they remember the name for a coin collector, then tell them that a stamp collector is called a philatelist.

# Lesson 12 The government

## Discussion points

- Why do countries need governments?
- What kinds of governments are there?
- What kind of government do we have in our country?
- Who looks after the country?
- Why do people have to be elected to the government?

Tell the students to calculate how old Pakistan is from 1947 to the current year. We have a parliamentary form of government, where the prime minister and his elected ministers (the cabinet) run the country. The president is the head of state and helps the prime minister. These persons got their jobs because the people voted for them through an election. Similarly, each province has its governor, the chief minister and his cabinet.

Tell the students how elections take place. Political parties nominate their candidates from the different parts of the country. They promise to look after those areas if they are elected (chosen) for five years till the next elections. This way, everybody who is capable gets a chance to do good work for his/her country.

The people mark the symbols of their favourite party candidates on a especially printed sheet (ballot paper) and put it in the ballot box. When the voting is over, all the papers are collected, the votes are counted, and the person who gets the highest number of votes from a particular area gets elected to a position in the government.

Note that this is a difficult topic. Spend adequate time to explain this lesson so the students can comprehend the system of elections. When they move to the higher classes they will, no doubt, experience an election first-hand, when the school prefects are being elected, but for now, simplify it by using easy language.

## Suggested activities

- To help them understand, conduct a small election in class for a class monitor in the same way as above. Tell them that there will be no cheating or bad feeling among the students. The election will be fair and friendly, and that the person elected was the best choice by virtue of getting the most votes.
- Ask the students to assess how much work there is to be done in a country. Help them here. Explain that a country's finances, defence, education, health, industry, agriculture, business, housing, etc., all need to be looked after. Ask them to suggest more departments that are the government's responsibility, such as transport, shipping, banking, insurance, tourism, etc. For all these areas of work, we need ministers and ministries.
- Ask them if they know what a 'constitution' is. Explain that it is a written document that is made up of all the rules that have to be followed in a country. Tell them to write their own constitutions for school and home. What are the rules for school and home?

## Answers to questions

1. Democracy is a Greek word meaning 'people's rule'.
2. Through a system of elections every five years.
3. Chief ministers.
4. There are many things a government has to decide: to deal with law and order, how much tax to put on people and goods, what it is going to spend money on, whether new buildings such as hospitals, offices, and colleges have to be built, and where they are going to be built. It has to plan for the future, and improve conditions in the country.
5. Pakistan Muslim League (PML-N), Nawaz Sharif; Pakistan People's Party (PPP), Asif Ali Zardari; Muttahida Qaumi Movement (MQM), Altaf Hussain; Awami National Party (ANP), Asfandyar Wali Khan; Jamaat-e-Islami (JI), Syed Munawar Hasan; Pakistan Tehreek-e-Insaf (PTI), Imran Khan; Jamiat-ul-Ulema-e-Islam (JUI), Maulana Fazlur Rahman.

## Work Page

- A
- 1 The constitution
  - 2 Chief minister
  - 3 Ministers
  - 4 National Assembly
  - 5 Election
  - 6 The prime minister
  - 7 The Senate
- B
- 1 governor
  - 2 Islamabad
  - 3 president
  - 4 National Assembly
  - 5 18

## Things to do

- Help the students to find the names of the people mentioned.
- Ask the students to bring a picture of each of the six government functionaries mentioned in this activity. They can find these in the newspapers with the help of their parents and older siblings.

# Lesson 13 The law

## Discussion points

- Why are rules important?
- What are the rules of a country called?
- Who makes sure that laws and rules are followed?
- What happens when laws are broken?
- Who decides how law breakers should be dealt with?
- Where are these decisions taken?

Think of all the words and phrases you know linked with the law. For example *law, lawmaker, law making, law of the land, lawyer...*, etc.

## Suggested activity

- Ask the students what other words they can think of that could explain or describe law. Tell them about rules and regulations. Why do we need rules and regulations?

The country's law is the constitution as explained in the preceding chapter. If there were no constitution, the country would not move and grow in an orderly manner. There would be complete chaos and confusion if lives were not governed by law, at home, in schools, in business offices, and in government offices. Everyone would be doing as he/she pleased. Therefore, laws are made which also include punishment for those people who 'break the law'.

## Suggested activity

- Ask the students what rules or laws apply in the following places: at home, at school, in the playground, in the company of people. Write their responses on the board. Ask them what punishment would apply to each breach of law. For example, if a child pushes another child in school and he falls down and gets injured—the naughty child should be made to apologize to the hurt child and his/her parents and promise never to do it again. The embarrassment of having to apologize and being marked as a naughty child will be more than just punishment for the offence.

To maintain law and order in a city, policemen and judges are appointed by the authorities. The policeman arrests the offender and the judge decides the case and awards the punishment. In the case of the example above, the class teacher would take the place of the policeman and the principal would take the place of the judge. By giving the students examples of crime and punishment at their level of age and understanding, the concept of law can be partially, if not fully, understood.

Take a game, for instance. In a hurdle race, the rule is that you must jump over the hurdle without knocking it to the ground in order not to be disqualified or lose the victory.

In a tennis match, if the ball is hit out of the court, it is declared out and the player loses a point. That is why the white lines are drawn around the court. These are the 'limits', which must not be crossed or breached.

The law is a very serious matter in a country. Courts are there to dispense justice and keep the peace. Lawyers are of two kinds; those that fight your case for you and those that fight against you; and a judge or a panel of judges (tribunal) decides if you are innocent or guilty.

## Suggested activities

- Find out how many of the students' parents are in the legal profession.
- Do a role-play to demonstrate this concept. For example, one student may have broken a chair or a window in class. Another child will be the 'witness'. One child can be the judge, while there are two lawyers.

## Answers to questions

1. If there were no laws, there would be no order in society; things would not run smoothly; there would be no justice.
2. The police helps by arresting/penalizing the law breakers, and by providing a deterrent to people.
3. They are arrested by the police and charged with a crime, and taken to a court of law where the judge or magistrate sees that justice is done and the guilty person is punished.
4. The Sessions Court, the High Court and the Supreme Court which is the highest court in Pakistan.
5. When someone is charged with a crime, he is taken to court. A lawyer will tell the judge about the crime. Another lawyer (a defence lawyer) will speak for the person who has committed the crime. Witnesses to the crime may also be called to give evidence. Then the lawyers argue the case and the judge listens to both the sides. Then he gives his decision.

## Work Page

- A
- 1 No parking
  - 2 Civic work in progress
  - 3 Slow down, bumps or speed breakers in the road ahead.
- B
- 1 To officially accuse a person of a crime.
  - 2 A person, who belongs to the legal profession, and who handles people's cases, when they are prosecuted for a criminal offence.
  - 3 A magistrate is the one who decides cases in the lower courts.
  - 4 A jury is a group of people who decide if a person is innocent or guilty.
  - 5 Statements made or objects produced in a law court to prove something.
  - 6 A person who has seen a crime being committed.

## Things to do

- This activity can be done in pairs or small groups. Give students time to discuss, note, and decide rules for the class and playground. This is also a good practice of democracy.
- Individual work by students.

# Lesson 14 People and work

## Discussion points

- Why does the government need to know details about the population?
- How do we know how many people live in a country?
- What are their average ages, their occupations, their religions? How many people are there in an average family?
- What kind of work do the people of Pakistan do?
- How does a government serve the people?

## Census

Explain the concept of a census to the class. Explain that teams of people are employed by the government to go from door to door asking the residents all these details about them, needed by the government. The cities are usually divided into neighbourhoods or zones. Separate teams go to different areas with a questionnaire that they usually fill in themselves.



### **Suggested activity**

- Conduct a census on a small scale in the classroom. Ask the students to count the number of children. Ask them their ages. Which areas do they live in? How many live in the same area? How many come from the same province? How many languages do they speak and how many speak the same languages? How many brothers and sisters does each student have? Are they younger or older?

When all the facts are put together, the students will have a good idea what a census is. You will also get a fairly good picture of your class, e.g. their respective ages and their family backgrounds. You will also know which neighbourhoods they come from and their position in the hierarchy of their homes. You might also be able to organize a car pool for students living in the same area, to come to school every day.

### **Suggested activity**

- Explain to them the pie chart on page 54 of the textbook. It shows, with the help of different colours, the percentage of the three different age groups of people in Pakistan, i.e. children, adults, and the very old or senior citizens. Explain that such data helps the government to plan ahead for education, employment, and health facilities as it has all these statistics at its fingertips.

What types of work do Pakistanis do?

Pakistan has a rural (countryside) population and an urban (cities) one. The majority lives in rural areas where agriculture is the main occupation. They tend the land, grow crops, rear livestock, harvest the crops, and prepare it for the markets. Many of the people who do domestic work such as cooks, gardeners, and cleaners as well as security guards in homes and offices come from rural areas to work in the city for better income, leaving their families back home.

The people who work in the cities do a variety of jobs. There are people who work in factories and offices as skilled technicians and unskilled labourers; there are well-educated people who work as clerks, secretaries, and managers in offices. Then there are the 'professionals', such as doctors, nurses, teachers, engineers, pilots, and lawyers, who have studied and trained for their line of work. There are also industrialists who manufacture goods, businessmen and traders who buy and sell commodities.

Apart from this, we have people who work in the police and armed forces, the fire brigade, the transport sector—road transport, railways, airlines, shipping—to name a few.

To recap, ask the students to define the following: a doctor, a lawyer, a pilot, a teacher, an engineer, an industrialist, and a trader. Ask them to name more professions so that they are aware of different kinds of work one can do.

Explain what is meant by the 'dignity of labour' and the importance of this concept. It means that no matter what work one does, it has its own value and dignity and must be respected.

### **Services**

Services: Textbook 3 has dealt with the private and public services that a government provides its people. There are departments to handle public welfare, such as road repair, water supply, transport, parks, and schools. They also build bridges, canals, and dams.

### **Suggested activities**

- Ask the students to think carefully about what else a government can do for its people which they cannot do themselves on a large scale; list their responses on the board and read them out in class. It will be interesting to see how their young minds come up with ideas.
- Role-play: Nominate some of the students to act out the parts of various professionals. Each one should say in a sentence what work they do. They can answer in English or Urdu, depending on the vocation they choose. For example: 'My name is Rasheed. I am a secretary in a big company', (in English) or 'My name is Rafiq. I am a carpenter and I make all sorts of things out of wood' (in Urdu).



## Answers to questions

1. By conducting a census of the population.
2. We need to know the details of a country's population so that the government can plan and decide many things.
3. Education and training help people get jobs that pay well.
4. Every job has its value.
5. It provides public services to its people like schools, colleges, hospitals, clinics, banks, etc. It also builds buildings, canals, roads, and bridges.

## Work Page

- |           |               |
|-----------|---------------|
| A 1 Cross | B 1 Carpenter |
| 2 Tick    | 2 Artist      |
| 3 Cross   | 3 Doctor      |
| 4 Tick    | 4 Chef        |
| 5 Tick    | 5 Dentist     |
|           | 6 Postman     |
|           | 7 Cashier     |
|           | 8 Pilot       |
|           | 9 Actor       |
|           | 10 Painter    |
|           | 11 Nurse      |

## Things to do

- Activity 1 has already been explained. In activity 2, tell the students what an NGO (non-governmental organization) is, and what work it does. Mention the names of some and the people who run them. Where do they get the money to do their work? There is The Citizen's Foundation, Helpline Trust, The Reformers, Shehri, Shirkat Gah, etc. Ask the students to find out what work these organizations do.

## Lesson 15 Our past

### Discussion points

- Who were our ancestors?
- How civilized were they?
- The Indus Valley Civilization
- The empires that rose and fell
- Who brought learning to the world?

The history of man in the subcontinent dates back to the Paleolithic Age as stone tools of this period have been found in caves in the Soan Valley, Charsadda, and in Chilas, in the north.

The Indus Valley Civilization has been traced back to 2600 BCE, that is, before the birth of Jesus Christ. Ask the students if they know the word ‘archaeology’ (pronounced *ar-kee-ol-o-gy*). This is the study of past civilizations, by digging in selected areas of land to locate the sites where these ancient cultures lived. By careful digging and certain scientific methods, such as ‘dating’, archaeologists have managed to find out a great deal about our ancestors. Many ‘artifacts’ have been found at these sites, which tell us how the people of these cultures lived, how they worshipped, what they ate and wore and how advanced they were. Our famous sites are Mohenjo Daro (the meaning is given alternately as ‘the mound of the dead’ or ‘the settlement of the Mohanas’, a tribe still found in this region), Harappa and Taxila.

Also tell the students about the Soan Valley and Mehrgarh civilizations, believed to be older than the Indus Valley Civilization.

Note: The terms BC (Before Christ) and AD (Anno Domini—the year of our Lord) have now been replaced by BCE (Before Common Era) and CE (Common Era), respectively.

**The Indus Valley Civilization:** Start by explaining that most of the great civilizations of the world began near river sites; for example, the Babylonian/Sumerian civilizations near the Tigris and Euphrates rivers in Iraq; the Egyptian civilization by the River Nile; the Indus civilization, as the name suggests, by the River Indus. This civilization is really the beginning of our culture. If you can take the students on an excursion to Mohenjo Daro near Larkana in Sindh, they will see how advanced this civilization was thousands of years ago.

They already used the wheel, which is considered by the western world to be a great achievement, because it was the beginning of movable transport, and is the basis of mobility in vehicles till today. The site has been carefully excavated (dug) to reveal temples, houses, streets, a sewage system, communal baths, and a granary. Archaeologists have also found many objects which give us a clue as to what materials the objects were made of, and also how the people lived.

Ask the students to calculate how long ago this civilization flourished. They will have to go back 2600 years before Christ and add another 2012 years of life on Earth as we know it now. This would work out to approximately 4612 years. That’s how old the Indus Valley Civilization is! The ruins at Harappa also date back to about this time.

(The Mehrgarh site in Balochistan is even older, dating back to 7000 years BCE.)

**The Aryans and later empires:** The Aryans came to the subcontinent from about 2000 BCE onwards. They drove the original inhabitants, the Dravidians to the east and south of the subcontinent, taking the fertile plains of the rivers Indus and Ganges for themselves. Then, later, came the Persians, Greeks, Mauryans, Parthians, Kushans, and the Huns.

### **Suggested activity**

- Draw a timeline to show the concept of time. Explain by making a simple timeline for the students, showing their date of admission to the school and year-wise progress to Class 4. Then get the students to make a timeline showing each civilization with the dates. This activity will help the children to remember the dates chronologically.

**Religions:** Hinduism was the earliest religion of the subcontinent. In the fifth century BCE, Buddhism was introduced by Gautama Buddha, who lived in Bihar; unlike Hinduism, there is no caste system in Buddhism. Jainism was founded by the religious leader, Mahavira in the sixth century BCE.

Islam came to the subcontinent with the Arabs in the eighth century CE.

### **Suggested activity**

- Ask the students what happened in the sixth and seventh centuries in Arabia. Who brought Islam to Makka and Madina, the rest of Arabia, and the rest of the world?

**Learning:** The Greeks and then the Arabs and later, the Persians, brought much learning to the world in mathematics, astronomy, medicine, art, and geography. They introduced numerals and the concept (idea) of zero that they had borrowed from Indian mathematics.

Objectively speaking, almost every past civilization throughout the world has excelled in one or more fields. The learning of the Eurasian civilizations was studied, saved, and passed on by the Arabs. The Chinese had an advanced civilization for their time, as did the Indians. Knowledge from the Central and South American civilizations came to be studied much later.

## **Answers to questions**

1. We have learnt about the past through archaeology; by digging up the sites where these civilizations were thought to have flourished; by finding pieces of pottery, ornaments, jewels, clay figures, and seals, some of which had inscriptions and symbols on them. Historians are trying to decipher the writings, which could give them a clue as to the culture and state of advancement of the people who lived there once.
2. Mohenjo Daro means 'mound of the dead' in the Sindhi language. It is located in Sindh, near Larkana.
3. The Indus Valley Civilization was advanced for its time because they used wheels, made pots and other vessels, made things out of metals such as copper. They also made cloth which they traded with Mesopotamia.
4. The Aryans were a large tribe from Central Asia who settled in the subcontinent around 1500 BCE. They brought a new language, Sanskrit, and new culture with them. They also brought a religion, Hinduism.
5. Taxila had a big university where many Buddhist scholars came to study besides other people. The Mauryas and Guptas promoted learning, and Harsha, the ruler of the Nanda dynasty, set up the Nalanda University, famous for its mathematician Aryabhata who invented the concept of zero.

## **Work Page**

- A 1 The Persians (rulers: Cyrus the Great, Darius the Great)
- 2 The Greeks (ruler: Alexander)
- 3 The Mauryans (ruler: Asoka)
- 4 The Kushans (ruler: Kanishka)
- 5 The Guptas (ruler: Chandra Gupta)

- 6 The Parthians
- 7 The Huns
- 8 The Nandas (ruler: Harsha)

- B
- 1 True
  - 2 False
  - 3 False
  - 4 True
  - 5 True
  - 6 False

- C
- 1 Archaeology is the study of the remains of ancient civilizations.
  - 2 Inscriptions are the words written or carved on a monument, coin, stone, etc.
  - 3 A dynasty is the succession of rulers from the same family.

### Things to do

- A visit to a museum would be a good learning experience for the students.
- This can be done as a group activity.
- The third activity requires the students to use their imagination.

## Lesson 16 Muslim rule in the subcontinent

### Discussion points

- The beginning of Muslims' interaction with the subcontinent
- Mohammad bin Qasim's entry and impact on the Indus Valley region
- Muslim invasions from the north-west
- Establishment of the Delhi Sultanate
- The Mughal Empire and its impact

**Mohammad bin Qasim:** Use a map of South Asia or the subcontinent to help students know the routes taken by Muslim invaders, and the later extent of their kingdoms. Begin by giving brief background of the Arab trade with the subcontinent before the advent of Islam. Talk about the reasons for Bin Qasim's mission to the subcontinent and his style of government after the conquest of Sindh and lower Punjab. His fair and just dealing made many people convert to Islam.

**The Delhi Sultanate:** With the coming of Islam to the subcontinent, also came many Muslim rulers. Mahmud Ghaznavi from Afghanistan invaded the subcontinent several times in the 11th century, but he did not stay back in India. In the 12th century CE, the Muslim rulers of India were: Mohammad Ghori, Qutbuddin Aibak who formed the Delhi Sultanate, the Khaljis of whom Alauddin Khalji was the most well known, the Tughlaqs, the Sayyids, and the Lodhis. Talk about Iltutmish's brilliant daughter, Razia Sultana, who was very progressive for her time.

Do note that this lesson is aimed at informing the students about our history in the subcontinent, the dynasties that came and went, how the Muslim rule was firmly established, and what Muslim culture brought to the subcontinent: a love of literature, music, and poetry; gentility and courtesy; and a lifestyle based on Islamic traditions and values.

**The Mughal Empire:** Begin by telling students that the Mughals were the descendants of the Mongols, Chingiz Khan and Timur, but they built instead of destroying. Explain that the Mughal era is generally known to be one of the most glorious in the history of the subcontinent. Beginning with Emperor Babur, India saw his sons, grandsons, and great-grandsons bring prosperity, progress, good governance, excellent administration and unity to India's many states. More of the subcontinent came under one rule under the Mughals than under any other dynasty. They brought a courtly culture to their glittering empire that was more developed than other contemporary empires. The earlier Mughal rulers never forgot the people, whom they kept happy by inducting them into the government; they abolished *jizya*, the tax on non-Muslims, and took care of their people's needs. From 1526, when Babur defeated Ibrahim Lodhi at the Battle of Panipat, India's fortunes were to change for the better over at least two hundred years or more of Mughal rule. Note that the Mughals succeeded because they were tolerant of the culture and traditions of their subjects, and fair in their dealings.

### **Suggested activities**

- Ask the students to name each of the Mughal emperors who ruled in succession after Babur.
- Which Mughal emperor built the Taj Mahal? Why? Ask the students if they know. Then relate the story to them. It's a beautiful story. Today, the Taj Mahal is considered to be one of the seven 'wonders' of the world, because of its timeless beauty and perfect architecture.
- Ask the students to make a list of all the Mughal era buildings in Pakistan, such as Shahjahan Masjid, Thatta; Akbar's Fort, Attock; Lahore Fort, Badshahi Masjid, Shalimar Gardens, and Hiran Minar in Lahore.

### **Answers to questions**

1. He was sent to Sindh to deal with Raja Dahir, who had been unable to control the pirates who had captured ships carrying goods for the rulers of Iraq, and Muslim pilgrims to Makka.
2. They learned how to write digital numerals and the concept of zero.
3. The Afghan ruler of Ghor, Mohammad Ghori conquered all of north India up to Bengal in 1192. He made Delhi the capital of his kingdom. Ghori was followed by a long line of Muslim rulers. The first of these was his general, Qutbuddin Aibak, who formed the Delhi Sultanate in 1206.
4. Balban was an effective ruler because he was a capable general who saved the subcontinent from the attacks of the Mongols. He built strong forts along the routes and stationed his troops there to stop the Mongols from advancing.
5. Akbar was probably the greatest of all the Mughal kings. He ruled capably from 1556 to 1605. He expanded the empire and was known to be a brilliant general who never lost a battle.
6. The Mughal kings united many states into a large empire. They set up a proper system of government and administration. They introduced a marvellous culture to the region. Many great buildings were constructed and literature, poetry, art, and music flourished.

### **Work Page**

- A 712: Muhammad bin Qasim defeated Raja Dahir  
997–1030: Mahmud of Ghazni's rule  
1192: Mohammad Ghori conquered India  
1206: Delhi Sultanate was established by Qutbuddin Aibak  
1246–87: Balban's rule  
1398: Delhi attacked by Timur's armies  
1526: Babur defeated Ibrahim Lodhi at Panipat  
1540: Humayun defeated by Sher Shah Suri

1556–1605: Akbar's rule  
1658–1707: Aurangzeb's rule

B Khaljis (1290–1320)  
Tughlaqs (1321–98)  
Sayyids (1414–51)  
Lodhis (1451–1526)

### **Things to do**

- Organize this as a class project, done by groups and put up for display.

### Lesson 17 Religion and languages

#### Discussion points

- What is meant by culture?
- How does religion affect our lives?
- The teachings of Islam
- Islam and other religions in Pakistan
- The importance of respect and tolerance for all
- The languages of Pakistan

Before you begin this lesson, explain the meaning of the word 'culture' to the class, because Lessons 17, 18, and 19 of the textbook discuss the 'culture of Pakistan'.

The word 'culture' actually means to 'cultivate' over a period of time. Therefore, when we refer to the cultures and civilizations of the world, we mean the many facets of a civilization, such as language, religion, the arts, literature, music, dance, crafts, education, and science. Culture also encompasses the social traditions of a society of people.

In this lesson, we discuss religion and language. There are five great religions in Asia, and although Islam is the state religion, at least three of them are also practised in Pakistan: Christianity, Hinduism, and Zoroastrianism. There are very few Buddhists, if any, in Pakistan.

#### Suggested activities

- Ask the students if they join their family members to say their prayers and read the Quran Shareef or, if they follow any other religion, then their religious practices.
- Do any of the boys go to the masjid to say their Friday prayers? Ask those who do to put up their hands. Ask the others if they go to their places of worship and, if so, when.
- Ask them what all these practices mean; explain that these actions are part of religious belief.
- The Kalima is the statement of belief in the Oneness of Allah (*tauhid*) and in the prophethood of Hazrat Muhammad (PBUH) as the messenger of Allah. The practice of *namaz* and fasting (*roza*) are also Islamic beliefs that we follow.

To understand different religions and to inspire tolerance in the students, show them pictures of churches, *mandirs*, and fire temples. Tell them that Christians worship in churches, Hindus in *mandirs* or temples and Parsees go to their fire temples. These are known as minority communities in Pakistan, because they constitute less than five per cent of the population of more than 165 million Pakistanis.

At this point, it would be wise to explain the difference between *religion* and *nationality* to the students. All the Muslims, Christians, Hindus, and Parsees, who live in Pakistan, are Pakistani by nationality, though their religions are different and they practise their religion in their own places of worship.

Very often people from different religions may have different and typical names which identify their faiths.

### Suggested activities

- If the school considers it appropriate and parents of the students have no objection or prejudice, it would be a good idea to introduce the students to people of other religions and, if possible, take them on a field trip to observe their places of worship. If they are to live side by side as Pakistanis, then they must also be able to appreciate and respect their different religions and cultures. By doing so, we will be teaching them tolerance, as is enjoined upon us by the Quran. People of other faiths can also come and talk to the students about special festivals, etc.
- They should join in the celebration of festivals of different religions and cultures. Tell the students about their history, for example, Christmas (Christians), Nauroz (Parsees), Diwali (Hindus), and Baisakhi (Sikhs).

Students will be surprised to know that one of the revered Sikh shrines, Nankana Sahib, is near Lahore and another is near Hasan Abdal in Khyber Pakhtunkhwa. These are visited by Sikh pilgrims every year. Similarly, one of the oldest Hindu temples in this country is Nani Mandir in Hinglaj, Balochistan.

### Language

Many of us speak Urdu and English and one or more regional language like Sindhi, Punjabi, or Pashto; still more speak Urdu and Sindhi or Punjabi, Pashto, or Balochi. People from the various parts of Pakistan have their own cultures and languages. They live in different cities across the country. We meet most of these people in the big cities of Pakistan, because they can get jobs there, run their businesses successfully, and earn more money.

Tell the students that in Pakistan, which is a multicultural country, people are multilingual. Explain what ‘multi’ means. You will hear one person speak at least two languages, English and Urdu, as well as their mother tongue. Whatever it maybe, it is fascinating.

Explain what is meant by dialects—these are regional variations of a language as spoken in a particular area by a particular group of people. A dialect is an offshoot of a major language. For example, Hindko is spoken by people who have a Pathan background, hail from Khyber Pakhtunkhwa and its environs, and who speak Pashto also; and Seraiki is an offshoot of Punjabi. Secondly, dialects are only spoken languages, and do not have a separate script.

Urdu is our national language and is widely spoken and understood across the country. English is spoken and written in schools, colleges, and offices; it is the official medium in Pakistan for communication with the outside world.

### Suggested activities

- Ask the students to make a list of the religions practised in Pakistan other than Islam. They should also be able to name their holy books and places of worship.
  - Sikhs: Guru Granth Sahib—*gurdwaras*
  - Hindus: Vedas—temples, *mandirs*
  - Parsees: Zend-Avesta—fire temples
  - Christians: Bible—churches

### Answers to questions

1. Culture is the way people live, dress, speak, eat, and behave, in general.
2. Religion, language, the arts (which include literature, music, dance, painting, sculpture, poetry), sciences, traditions, and customs of a people.
3. In the Bible.
4. It is a place of worship in the Sikh religion.



## Work Page

A 1 URDU	B 1 Quran Shareef
2 ENGLISH	2 Guru Nanak
3 ISLAM	3 Parsees
4 TEMPLE	4 Balochi
5 MOSQUE	5 dialect
6 CHURCH	6 Bible
7 AVESTA	

## Things to do

- Ask the children to find photographs or pictures of the typical places of worship of the different religions mentioned in the book.
- Students can surely write their names in English and Urdu.
- This would be an interesting exercise for the students as well as a test of their fluency in other languages.

# Lesson 18 The arts

## Discussion points

- What is meant by the arts?
- What art forms does one find in Pakistan?
- Why are the arts important?

In continuation of 'Culture,' begin with the discussion of the arts; does it only mean drawing and painting in their art class?

In academic terms, we use the word 'humanities' instead of 'arts' but here it means a practical skill or its application, guided by principles, to produce beautiful objects and works of creative imagination, skill or knowledge in a particular department. Explain that there are two categories of study viz. the arts and the sciences. The arts comprise the learning of history, geography, social studies, literature and poetry, painting, drama, singing and dancing, and making or creating things. The sciences deal with all the technical aspects of life, their statistics and calculations, such as knowing chemistry, physics, biology, and mathematics.

In this lesson, discuss the arts as being the literature, music, painting, and dance of Pakistan's four provinces.

Start with literature. Sadly, it is a subject in decline, although literature alone can teach the beauty of language and words. Many of the students will be familiar with the names of our three great Urdu poets, Iqbal, Faiz, and Faraz. There are also other writers and poets who write in Pakistani's regional languages as well as Urdu and English.

## Suggested activity

- Ask them to find out a little from home about each poet and speak about each one in the next class.

It is vital that our children be well versed in the biographies of these poets and writers and know about their famous works. Ask them to recite a short poem of any one or all of the three poets.

Next, tell them about our famous painters and artists, like Abdur Rahman Chughtai, Ustad Allah Baksh, Sadequain, and Gulgee, etc. This should be another activity for them to do for homework. They

should find out their names, if they are alive, or have passed on, and where they lived. Arrange to show students samples or pictures of their famous works. Taking students to an art gallery or the Arts Council would be a worthwhile experience.

### **Excursion**

Field trips, security permitting, are an interactive and effective way of learning. Take students to an art gallery and show them paintings by upcoming artists. Keep track of the painting exhibitions in the city and arrange with the school to take the students to an exhibition. Mere book study will not accomplish seeing and 'retaining' learning in the way that observing, feeling, and touching do. Remember that images remain embedded in the mind long after words are forgotten, especially in the curious, young mind.

Tell them about Islamic calligraphy; it is a special and decorative style of writing; its unique and special form is visible, usually, in stylized versions of the *ayats* of the Quran. The words are so precious that to give them a special significance they were written in calligraphic style.

Talk about our famous 'truck art'. Tell them to look at all the buses and trucks on the roads. Aren't they all 'dressed up?' This is part of our culture and people who live away from their homes for long periods of time express their love for their homes in this way. Incidentally, we are not the only country to decorate our transport vehicles. You can find similar decoration on buses in Thailand and on jeeps and wagons in the Philippines.

Playing a musical instrument is also an art, as is classical dance. Ask the students if any of them play an instrument. Tell them to bring pictures of our traditional musical instruments and to draw and label them. We have such diverse instruments used in all our provinces, wind instruments, string instruments, and percussion instruments.

Show them photographs of various other musical instruments and ask them to identify each one by name, and sketch any one they would find easy to do.

Dance is another form of expression of moods, emotions, stories about love and life. Again, all the provinces have their own dance forms. Dance expresses the people's happiness at weddings, harvests, festivals, and celebrations; the rhythm and drama of battle and the joy of victory. Dances performed to the rhythm of music can be light-hearted and joyous. Some schools have a music class, which relaxes the students' minds and, apart from teaching an art form, also relieves the anxiety and stress of schoolwork.

### **Answers to questions**

1. Dances are performed to express joy on a special occasion such as harvest time, a festival. or a wedding.
2. The *luddi* and the *bhangra*.
3. Truck art is typical of Pakistan. It can be seen on most trucks and buses.
4. Students will write their own answers.

### **Work Page**

A Nusrat Fateh Ali: *qawwali* singer

Ahmed Faraz: poet

Gulgee: artist

Sadequain: artist

Ashfaq Ahmed: writer

Sheema Kirmani: dancer

B flute, *shehnai*, *tabla*, bagpipes, tambourines, ankle bells, drum, bugles

## Things to do

- Some towns and cities have museums and art galleries. In Karachi, take the students to the Mohatta Palace, a beautiful building with coloured glass windows, which hosts exhibitions from time to time. The Arts Council and the National Museum in Karachi are also worth visiting. In Lahore, students can be taken to the Lahore Museum and the Arts Council at Alhamra. Enlarge the vision of children at this impressionable age with practical activities. *Showing* them something, as opposed to *teaching* them, goes a long way in helping them remember the lesson.
- Show the children a tile from Hala in Sindh. Ask them to draw and paint it in its natural colours.
- Ask the students to trace a small floral or geometric motif from any of the carpets they have at home, then draw and colour it.
- Students can do this with the help of parents and teachers.

# Lesson 19 Food, festivals, and games

## Discussion points

- Why are festivals celebrated?
- Food, festivals, and games are part of culture
- Favourite foods and games

Involve the students in a lively discussion about food. Apart from food being essential for us to live, we all enjoy food! Let the discussion be fun and interactive. Talk to the students about their favourite foods, desserts, puddings, the fruit and vegetables they like to eat or detest. Explain that different types of food also reflect the culture and lifestyle of the regions they come from.

## Suggested activity

- Ask the children to make a list of what they eat every day for breakfast, lunch, and dinner, and then write their favourite foods under those headings. Each student may read out his/her list. This can be very entertaining because there will be faces made at some of the items and 'yummy!' shouted out for things like ice cream and chocolates!

**Spices:** The East has always been famous for its spices which are also an indispensable ingredient of our food. Food is tasteless without them. Explain to students that apart from adding flavour to food, spices also have medicinal properties. Turmeric (*haldi*), for example, is an effective anti-bacterial agent; cumin seed (*zeera*) and aniseed (*saunf*) help digestion.

## Suggested activity

- Bring small amounts of at least 10 whole spices to class in little bottles or clear plastic bags to show them to the students. Ask if they know the names; tell them the names and what the taste is like. Alternatively, a board display can be made by pasting small clear plastic bags containing the spices on a chart paper with labels for the names.

Some of the spices they could use are: *zeera* (cumin, black or white) *rai* (mustard seed) *kalonji* (onion seed), *laung* (clove), *ilaichi* (cardamom), *darchini* (cinnamon stick), *dhania* (coriander seed), and *tez patta* (bay leaf).

**Foods:** Each province has its own tasty dishes. Sindhi *biryani* and *palla* fish are specialties of Sindh; *Sajji* is a favourite and delicious meat dish from Balochistan, while *chapli kababs* from Khyber Pakhtunkhwa are enjoyed all over the country and *paaye* and carrot *halwa* are favourites from the Punjab.

### Suggested activity

- Ask the students to suggest the names of a few typical regional dishes such as *sarson ka saag* and *makai ki roti* which are favourites in the Punjab. Do the same for the other provinces. However, we all eat *tikka* and *kababs*, *daal* and rice, *biryani*, *koftas*, and curries of all kinds, as well as omelettes and *parathas*, *jalebis* and *halwa puri* which are all-time favourites.

Tea is widely drunk in Pakistan in every home, shop, and office; since it is generally hot in this country and fruit is plentiful, seasonal fruit juices are in abundance. Sugar cane and lime juice are available all year round, but *falsa* and mango juice are available only in summer. Apple and orange juice are a winter specialty along with delicious pomegranate juice.

### Suggested activity

- Ask the students to write down names of fruits available in the different seasons in the provinces. Start with spring, then summer, autumn (which is an extended summer in most parts of the country), and winter.

**Festivals:** What is a festival? These are days celebrated to mark events and even seasons. *Basant* is celebrated in the Punjab to mark the arrival of spring; similarly, Parsees celebrate Nauroz (new day) on 21 March which is the spring equinox. Ask the students to come up with more names, such as Eid, Christmas, and other cultural, religious, and national festivals.

### Suggested activity

- Divide the class into groups and assign each group to do a project on a particular festival. They should find out why it is celebrated and how, and write brief notes on them. Ask them to find and paste pictures as well and put up the project for display in the class. Students can also act out the celebration of selected festivals, under the teacher's guidance.

**Games:** The textbook covers this quite well for this level. Pakistanis are a sports-loving nation. This topic will interest the boys in your class particularly, as they are generally more sports-oriented than girls. Talk about the latest sports events in the country. Discuss favourite sports and take a popularity poll by a hands-up count.

### Suggested activities

- Ask them what their favourite sport is. (Remember that swimming is also a sports activity, as are other track and field events.) Students could make a sports corner on the class notice board and put up information on sports events in the city/country.
- Ask them how many sports involve playing with a ball. Perhaps the students could bring to class different balls for different games, draw and colour them and name the game they are used in.
- Ask them why a football cannot be hit with a racket or a hockey stick and why a shuttlecock is shaped the way it is. Show them a tennis, squash, and badminton racket each and ask them to weigh each one in their hands. This will help them to understand why a squash racket cannot be used to play tennis with, and so on. The same exercise can also be conducted using a cricket bat and a hockey stick.

Explain that other than these games, polo, *kabaddi*, etc. are also played. Help students to describe how each game is played.

### Answers to questions

1. Students to do this using the information given in the lesson and its explanation.
2. Chapatis, naan, and rice; daal, beans, vegetables, and meat, poultry, and fish dishes.
3. Students to do this using the information given in the lesson and its explanation.
4. Students to write their own answers.
5. Students to write their own answers.

## Work Page

- A
- 1 Cricket
  - 2 Cricket, football, tennis, squash, golf
  - 3 Cricket, baseball
  - 4 Tennis, squash, badminton
  - 5 Badminton
  - 6 Tennis, badminton, volleyball
  - 7 Golf
  - 8 Billiards

B Students to do this exercise individually.

## Things to do

- Give the students an assignment to do at home. Ask them to try and cook an easy dish, even frying an omelette or making noodles, and bring it to class. They should then write down what they used to make the dish, under the heading, 'Ingredients', and how they made it, under the heading, 'Method'. Give a practical example by writing out a simple recipe on the board.
- Activities 2 and 3 can also be given as homework.

# Lesson 20 Animal rights

## Discussion points

- Understanding the term 'rights'
- To know that all living things have some basic rights
- Rights should be respected
- Animals must be treated with care, consideration, and kindness

Animals have three of the five basic rights that humans have. They have the right to food, to shelter and the right to be loved. Now, we know that animals cannot speak and ask for their rights as humans can, but there is an unspoken rule for all living things that Allah has created (plants and insects too). Since they are living, that is, they are alive (a) we cannot mistreat them, (b) we cannot deny them food, (c) we cannot kill them for sport, and (d) if we cannot give animals (street or wild animals that are not household pets) love and care, we can, at least, let them live in peace and not be cruel to them.

## Suggested activity

- Ask the students how they would feel if they were denied their rights. Explain to them that animals cannot ask for food, shelter, and care—they cannot speak. But we, as humans, should be sensitive to their needs and must be kind to them. Explain that it is cruel to hurt any living thing: one should not beat animals, pull their tails, pull the feathers off birds, or the legs off insects. Emphasize the fact that animals cannot speak and tell us what they think and feel. If they could, this world would change.

Tell the students that in developed countries people are more caring towards stray and pet animals. They often take stray dogs, cats, or birds to their homes or take sick or injured animals to the vet for medical treatment. Sadly, in Pakistan one finds animals treated poorly. Beasts of burden, such as donkeys, horses, oxen, and even camels are made to carry very heavy loads, cruelly beaten, not fed or watered properly, and turned out to suffer when they are old or too sick to work. Only expensive household pets are well treated and looked after.

### Suggested activities

- Ask the students how they feel carrying heavy schoolbags every day to school and back. How do camels, donkeys, horses, and bullocks tell their masters they are tired because of carrying heavy loads day after day, and working tirelessly in all kinds of weather? They have a life of hardship.
- When you have made the students aware of the injustice and cruelty of man's treatment of animals, ask them what they could do to improve the lives of animals in Pakistan. Tell students about the Society for Prevention of Cruelty to Animals (SPCA) that was run by Lady Constantine, a remarkable person, and about the Pakistan Animal Welfare Society (PAWS) that has been organized by a group of young animal lovers. Information about these can be found on the Internet.
- The students could write a letter, collectively, to a newspaper asking that animals used as beasts of burden should be cared for by their owners. They could sign their names individually to the letter or simply write 'the students of X-Y-Z School'.
- They could organize a skit or a play showing the mistreatment of animals (perhaps the 'animals' could speak about their misery), so that more people can become aware of their plight.
- They could draw and colour posters in both English and Urdu, to be put up in prominent places, to protest the ill-treatment of animals.
- They could set up a club or a society for the prevention of cruelty to animals like PAWS or SPCA.
- They should speak to the *nazims* of their cities, through your efforts and the school's, and ask for bears and monkeys that are used to perform before crowds, to be set free. Poor people use them as a source of income but the animals are treated very badly. They should be allowed to return to their natural habitat.

### Answers to questions

1. People should be kind to animals as they cannot speak and complain when they are tired, hungry, or sad.
2. They have a right to food, shelter, and love.
3. By being kind to them.
4. Students to write their own answers.

### Work Page

- A
- 1 Domestic animals: cow, goat, buffalo, duck, ox, rabbit, cat, dog
  - 2 Wild animals: tiger, lion, zebra, elephant, bear, snake
  - 3 Pets: parrot, dog, pigeon, rabbit, cat

B Students to do this exercise individually.

### Things to do

- Take the students to visit a zoo.
- Ask the students who a 'vet' is and what s/he does, and whether they know how many vets there are in their city. Tell them that the complete word is 'veterinarian'. Break it up for them into syllables for easy pronunciation, viz. *vet-er-in-ar-i-an*.
- Children can use the Internet to find out more about PAWS or SPCA.

# Lesson Plans, Book 4

## Unit 1 Geography

### Lesson 1 The Earth in space

#### Lesson plan 1: The Earth in space

**Duration:** 40 minutes

**Objectives:** To revise previous learning and know more about Earth and space

**Outcomes:** Students will be able to

- identify the shape of the earth
- understand the position of earth in space
- define revolution, rotation, axis and orbit

**Resources:** Textbook, *Oxford Project Atlas for Pakistan*; globe, world map, satellite photographs of Earth and space from NASA website

**Note:** Read through the Teaching Guide explanation for Lesson 1, The Earth in space, for a comprehensive explanation.

**Introduction:** 10 minutes

Welcome students to the class and introduce the topic. Show them the globe and ask some basic questions with reference to it, such as: Can you see Asia on the globe? Where is Pakistan? Ask the students to look at the globe and observe its shape. Explain that although the models of the Earth as a globe are completely spherical, i.e. like a ball, the Earth is actually slightly flatter at the poles, the upper and lower ends. Ask the students to identify and name the poles, to revise the geography learnt in the previous class. Remind the class that the Earth's axis is an imaginary line that runs vertically through the Earth from north to south; the two ends of the axis are called North Pole and South Pole.

Talk about some of the beliefs of earlier people about the Earth. The earliest people believed the Earth was flat and that they would fall off the edge into a vacuum if they travelled from one end to the other! They also believed that the Earth was the centre of the universe and the Sun, Moon and stars all revolved around it, hence the terms 'the Sun rises' and 'the Sun sets'. Tell the class that in the 16<sup>th</sup> century, Galileo Galilei from Italy and Copernicus from Poland were the first to state that the Sun was at the centre of the solar system and the Earth and other planets revolved around it. Galileo was tried by the Church and told to take back his theory.

Provoke students' interest by asking them what they think about the beliefs mentioned above, and why early people thought along these lines. Ask students if they have any questions about Earth's shape and position in their minds. Encourage them to share their queries with the class.

**Explanation:** 25 minutes

Read the text. With reference to the photograph on the top right, explain that today we know more about the Earth because of space probes, spacecraft launched to study and send back data, and to take astronauts into space. Talk about the first mission to the Moon: ask students to look up the details for the next class.

Draw the students' attention to the key vocabulary highlighted in the text. Read the text further and discuss the other pictures on page 1. Ask students about Hubble Space Telescope and Chandra X-ray Observatory. Share the information about these or ask students to bring information on these for their homework.



With reference to page 3 of the Teaching Guide, explain the terms orbit, seasons, and solstices and equinoxes. The terms orbit, axis, rotation, revolution and seasons have been briefly explained in Book 3; however, a revision with reference to the diagrams on page 2 will refresh their memory.

The concept of day and night as a result of rotation and of seasons as a result of revolution and the tilt of the Earth's axis can also be revised at this point. Use the globe or draw a diagram to explain.

Read about the Moon as the Earth's natural satellite. Explain that we now have communication satellites also orbiting the Earth; these help with the transmission of television programmes, information technology, and other scientific uses, such as Google Earth which maps every corner of the Earth from space.

**Conclusion:** 5 minutes

Recap the points discussed in the class. Discuss the first two questions on page 3.

**Homework:** Questions 1 and 2 to be answered in the notebooks for homework.

Find out three facts about the Hubble Space Telescope and Chandra X-ray Observatory.

## **Lesson plan 2: The Earth in space**

**Duration:** 40 minutes

**Objective:** To inform the class about solstices and equinoxes

**Outcome:** Students will be able to

- understand solstice and equinox with the help of diagram
- understand how seasons are caused

**Resources:** Textbook; globe; Internet

**Introduction:** 10 minutes

Greet students and ask about the homework given in the previous class—to bring three facts about the Hubble Space Telescope and Chandra X-ray Observatory. If possible, show pictures of the telescopes to students and also the pictures of space and space bodies taken by the Hubble telescope and the Chandra Observatory.

Share with the class some facts about Hubble and Chandra.

**Hubble:** The Hubble Telescope was built by NASA with help from the European Space Agency, and launched in 1990, by a space shuttle. It is named after the astronomer Edwin Hubble. The Hubble Telescope has been sending spectacular images of space and celestial bodies. It is the only telescope serviced and repaired in space by astronauts.

**Chandra X-ray Observatory:** This is named after the Indian physicist Subramaniam Chandrashekar. The word Chandra is Sanskrit for the moon. Chandra X-ray Observatory was launched by NASA in 1999. It is the world's most powerful X-ray telescope and has sent back amazing images of space and celestial objects.

Now talk about seasons—what is the current season in our country? Remind students that Pakistan is in the Northern Hemisphere—what is the season in the Northern Hemisphere? Tell the class that they will be learning more about seasons today.

**Explanation:** 20 minutes

Read the text from 'Rotate' onwards on page 2, explaining that rotation results in day and night on the Earth while revolution results in seasons. Using the globe, explain the term hemisphere—i.e. half a sphere. The top half of the globe, between the equator and the North Pole is the Northern Hemisphere while the lower half between the equator and the South Pole is the Southern Hemisphere.



You can use the activity suggested on page 2 of the Teaching Guide, using the globe and an orange ball or balloon as the Sun. Point out that the Earth, while spinning on its axis is also going around the Sun in a fixed orbit.

Use the text and diagrams on pages 2 and 3 of the textbook to explain how seasons are caused. The Earth is tilted at an angle of 23.5 degrees—show them the tilt of the globe—it is this that causes different seasons. As explained in the textbook, regions on the equator are always hot because they get direct sunlight throughout the year. But parts of the Earth away from the Sun, in the tropics and temperate regions experience warm weather in summer and cold weather in winter; the polar regions are much colder because they do not get direct sunlight, and the Sun's rays fall on them at a lower angle.

Explain the phenomena of summer and winter solstices and equinoxes to the students. Copy the diagram in the book on the board for all to see. Show how the Earth's orbit is elliptical and hence the duration of day and night varies on the Earth. When the day and night are of equal length, the phenomenon is called equinox. This happens simultaneously in both hemispheres usually on 21 March and 22 September, when the Earth is closer to the Sun. In June and December, when the Earth is further away from the Sun, the solstices take place; when the northern hemisphere is tilted towards the Sun, 21 June is the longest day in the Northern Hemisphere while it is the longest night in the Southern Hemisphere which is tilted away from the Sun. The opposite event takes place in December when the Southern Hemisphere faces the Sun and has the longest day and the Northern Hemisphere facing away from the Sun has the longest night.

**Conclusion:** 10 minutes

Class work: Work Page Exercises A and B to be completed by students. Take rounds to supervise students work. Read out the answers for peer checking.

**Homework:** 'Things to do' activity is to be done for homework. Further, find out the name of the first woman astronaut who went into space and some more facts about her journey. Make a list of television programmes about Earth and space.

### **Lesson plan 3: The Earth in space**

**Duration:** 40 minutes

**Objective:** To impart further information about the Earth and space

**Outcome:** Students will be able to:

- explain in detail the key concepts discussed in the lesson
- label diagrams with the help of worksheets

**Resources:** Textbook; Worksheet 1 from the Teaching Guide

**Introduction:** 10 minutes

Talk about the homework given in the previous class. Discuss the facts about the first woman in space, Valentina Tereshkova, a Russian, who piloted the spacecraft Vostok 6 in June 1963. Valentina was a textile worker but was keenly interested in flying and skydiving, and was a skilled parachutist. She was selected for the Vostok programme and trained almost a year for the task, which she successfully accomplished.

Talk about the preparation and rigorous training required to undertake a journey into space, such as eating special diet, physical fitness, and stamina to endure the conditions in a spacecraft.

Ask the students to share the list of TV programmes about the Earth and space. Aliens and extra-terrestrial species are mentioned in some TV programmes—this can lead to a lively discussion. Encourage students to watch documentaries on TV channels such as Discovery and National Geographic.

**Explanation:** 15 minutes

Discuss questions 3, 4 and 5 at the end of the lesson; this will provide a recap of the contents of the lesson. Encourage students to answer with the help of diagrams.

**Worksheet activity:** 20 minutes

Distribute copies of the worksheet to students. They are to work on them individually.

Supervise students' work by taking rounds and providing assistance where necessary.

**Conclusion:** 5 minutes

**Homework:** Questions 3, 4, and 5 are to be done in the notebooks for homework.

Find out about the first Pakistani to go into space. (Namira Salim, who was the first Pakistani to have reached the North and South Poles, was shortlisted by NASA to join a space flight in late 2012. She has been training for the experience.)

## Lesson 2 Climate

### Lesson plan 4: Climate

**Duration:** 40 minutes

**Objective:** To explain what is meant by climate, and its features

**Outcome:** Students will be able to

- identify climatic features and zones
- identify factors affecting the climate
- understand the effects of climate

**Resources:** Textbook, atlas; Teaching Guide for explanation; globe; weather charts from newspaper of the previous week or last two days

**Introduction:** 10 minutes

Begin with a comment on the day's weather and the current season. Refresh their memory about the lesson on climate and weather, learnt in Class 3—that weather means the day to day conditions while climate means the typical weather conditions in a region over a longer period of time. Explain with examples, e.g. the climate of Quetta is cool and dry in summer and very cold in winter; the climate in Islamabad is wet, i.e. rainy in the summer months and cold in winter.

Ask the students about any country they have visited besides Pakistan; encourage them to talk about its climate and the season that they experienced.

Once the pupils have understood the difference between weather and climate, ask them to write two sentences to show that they have understood it completely.

**Explanation:** 20 minutes

Read the first two paragraphs; explain that our world is divided into different climatic regions. This means that a country may have a climate similar or close to similar as that of its neighboring country/countries. Explain the different kinds of climate: equatorial (hot, and rainy where there are forests), tropical (warm, occasional rain), temperate (dry and warm, cool winter), wet (raining all the time), humid (hot and steamy), and arid (dry, dusty and with no or very less rain) as well as very cold as in the polar regions or places having high altitudes.

Point to the climatic map of Pakistan showing the various climatic regions within the country, referring to the coloured key used to identify the different regions. Show Karachi which has a tropical/temperate climate due to its closeness to the Arabian Sea and the Tropic of Cancer. Talk about

Pakistan's northern mountain regions having high altitude and peaks which are covered with snow throughout the year. This area is usually cold throughout the year with mild summers.

Use the globe to show the various climatic regions the world is divided into: from the polar regions to the equator. Explain that the climatic regions are more pronounced in the Northern Hemisphere which has the bulk of the Earth's land mass. Similarly, the Eastern half of the globe has a mostly wet, rainy climate due to the seas and oceans in this region.

Next, explain that the climate has a strong effect on the Earth: agriculture cannot be practised in dry regions, while a very cold climate affects the lifestyle and occupation of the people.

Ask students to point out where Pakistan is located on the globe. Ask them to recall their learning from Lesson 1 and say in which hemisphere Pakistan is situated. Now carry out an activity using the globe; point out the 23.5 degree tilt of the Earth's axis. Show students the bulge of the Earth when it is facing the Sun: the equator is closest to the Sun and is the hottest part of the Earth. The areas close to it also have hot climates as the Sun's rays fall directly on the equator and the regions close to it. By the time the rays spread and reach the farthest areas, towards the poles they become cooler and weaker, until temperatures drop to almost freezing point or even below.

This activity will help students understand that the climate of a country is primarily affected by its position on Earth, in relation to the Sun.

Invite some of the students to come forward and point to different locations/countries on the globe and ask about the general climate of those countries; for example, take Northern Europe or Scandinavia or African countries close to the equator. Repeating the activity with different countries/regions will help students clarify any ambiguities they have in their minds.

**Conclusion:** 10 minutes

Questions 1 and 2 at the end of the lesson are to be discussed orally. It will give a feedback to the teachers as well as serve as a recap of the ideas discussed in the main lesson.

**Homework:** Explain the second activity of 'Things to do'—keeping a weather chart. Start with making the table on the board, as shown in the exercise. Show the weather charts from the newspapers and fill in the detail for a day so that students have a fair idea how to fill in the table.

Ask students to talk to someone who has been to a different country, and get some basic information about the climate of that region.

## Lesson plan 5: Climate

**Duration:** 40 minutes

**Objective:** To explain the factors that affect climate

**Outcome:** Students will be able to

- identify the factors that affect climate
- explain, with examples, the factors that affect climate

**Resources:** Textbook, atlas; refer to the explanation and activities in the Teaching Guide for the climatic factors for this lesson.

**Introduction:** 5 minutes

Begin with a quick recap of the previous lesson and the homework. Students share the information they have collected with their class. The teacher can add input where necessary, and wrap up the discussion by complimenting the students on their efforts.

**Explanation:** 20 minutes

List the main factors affecting climate and then read about them from the text. Inform the students that besides the position of a region on the Earth there are many other factors that affect the climate of that region too. Explain each factor and its effects as the reading proceeds, pausing to ask questions to ensure understanding.

**Rainfall:** use the atlas to show the areas in Pakistan that receive more rainfall than others. Moreover, different regions of the world which have a lot of rainfall or simply no rain can also be pinpointed with the help of the atlas.

Altitude or the height of a place is another factor that affects the climate of a place. The temperature of the air drops as the height increases. The mountainous regions usually have low temperatures throughout the year with severe cold in the winters. It would be interesting to show the picture of Mt. Kilimanjaro in Tanzania which, though on the equator, always has a snow-covered peak. That is the only place in Africa which experiences snow.

The next factor discussed in the textbook is a country's proximity or closeness to the sea. Countries like Pakistan which are close to the sea have the advantage of cool sea breezes blowing over the land and cooling it, thus dropping the temperature considerably. Karachi is one such example; it is located on the coast of the Arabian sea. The days in summers are quite hot but the cool sea breeze from afternoon onwards brings the temperature down to a pleasant level one. Likewise, in winter, the temperature is higher than inland.

Sheltered areas which are landlocked i.e. surrounded by land from all sides, tend to become oppressively hot in summers as wind routes are blocked by mountains or hills. Places like Quetta, surrounded by hills, have very low rainfall in summer. They may be protected from strong winds but generally have a very dry climate; however, the winters are severe.

Deserts are a particular climatic region and are found across the globe. The main features of a desert are its dry climate and lack of vegetation. Although deserts are usually very hot places, the night temperatures in the desert can fall low. Talk about the Thar Desert in Pakistan and the world's most famous desert, the Sahara in Africa. It will be interesting to point out the similarity in names as the Arabic word for desert is *Sahra*.

Forests are another important climatic factor as they attract rain. Explain that students will learn more about this in higher classes, but forests are very important for adequate rainfall in a region. Where forests are cut down carelessly, rainfall also decreases and the region becomes dry. Besides, forests maintain a balance in the climate of a region and also control flooding from rivers.

**Conclusion:** 10 minutes

Class work: Work Page Exercise A is to be done. Call out the answers for peer checking.

Wind up by discussing Questions 3, 4 and 6 as recap.

**Homework:** Questions 3, 4 and 6 are to be answered in the notebooks for homework.

Remind the students to continue with their weather charts. Ask them to find out some basic information about the kinds of clouds given in Exercise B of the Work Page.

## Lesson plan 6: Climate

**Duration:** 40 minutes

**Objective:** To help students understand and define monsoons; learn through activity

**Outcome:** Students will be able to

- identify and explain the pattern of monsoons
- know about instruments to record the weather

**Resources:** Textbook, atlas, globe; Worksheet 2 from the Teaching Guide appendix; mercury and digital thermometers:

**Introduction:** 5 minutes

Greet the students and collect homework. Introduce the day's topics. Show them the digital and mercury thermometers used to record body temperature; talk about specific thermometers that are used for recording the daily maximum and minimum temperatures. Explain that they will learn more about this later in the lesson.

**Explanation:** 25 minutes

Read the text from 'The Monsoon' onwards. Ask the students what the word monsoon reminds them of—it comes from the Arabic word *mausim* meaning season! Monsoons are seasonal winds that blow inland from the sea mainly in late summer, and this is a feature found mainly on the subcontinent, and parts of South-east Asia. Refer to the map on page 7 which shows the wind direction in summer—the winds from the Arabian Sea and Bay of Bengal bring rain to these areas. By the time the monsoon winds reach Pakistan, they have dropped much of the rain over India and Bangladesh, Sri Lanka, etc. In winter the winds blow from the North-east and bring snow and rain to the mountains.

Talk about Exercise B from the Work Page; ask the students if they have been able to collect some information about each kind of cloud. Cirrus is the ice-crystal cloud. It is a feathery white cloud that is the highest in the sky. Stratus clouds are very low in the sky. They are hazy and carry moisture, usually as fog. Nimbus clouds are rain clouds and, with stratus, are seen mostly in the monsoon season.

**Conclusion:** 10 minutes

Discuss Question 5 from page 7. Ask the students to share the weather charts with the class. Appreciate their work.

Class work: Distribute Worksheet 2 to be done in class. Read out the answers for peer checking.

Answer key: i) temperate; ii) forests; iii) atmosphere; iv) monsoons; v) July, September; vi) sea.

**Homework:** Question 5 is to be answered in the notebooks.

## Lesson 3 Our country

### Lesson plan 7: Our country

**Duration:** 40 minutes

**Objective:** To introduce Pakistan's location and physical features to the students

**Outcome:** Students will be able to

- locate Pakistan on a world map and globe
- identify the physical features of Pakistan

**Resources:** Textbook, atlas; globe; enlarged map of Pakistan, showing neighbouring countries as well

**Introduction:** 10 minutes

Greet the students and ask them some basic questions about their country, Pakistan, such as, how old Pakistan is and when its birthday is. Ask if anyone in the class or someone they know shares their birthday with Pakistan—14<sup>th</sup> August. Ask who can name the capital of Pakistan, what the colours of the national flag are and what it looks like. Talk to the students about their favourite national hero.

Call some students to come up and draw the national flag on the board.

**Explanation:** 20 minutes

Show the globe to the class and ask some students to come up and point out the continent of Asia and then Pakistan. Ask them to name the neighbouring countries of Pakistan.

Read the text from the beginning. Use the enlarged map of Pakistan to indicate the area from the north-eastern to the south-western tips of the country.

Point to the map at the top of the page to talk about the other countries and the sea and oceans students can spot on the map. Ask students if they can name and show the neighbouring countries, and also countries smaller and larger than Pakistan. Read the text further on till the last paragraph on page 9. Explain that Pakistan, despite being a small country, has almost all the physical features found in other parts of the world, and a range of climates. It has hot and cold weather, rainfall, forests, deserts, high mountains, tall peaks, hills, plateaus, lakes, valleys, rivers, and a long coastline along the Arabian Sea.

Ask the students if they have seen any of the particular physical features such as a river, sea, mountains, etc. when they visit other areas of the country. Encourage them to talk about what they observed about these places.

Stress on the diversity of people, languages, customs, culture, and faiths in our country. Ask any student if he/she can speak any other language besides Urdu or English such as Punjabi, Sindhi, Pashto, Balochi, Seraiki, etc. and to share something in the language they know with the whole class.

Tell the students our religion is Islam but people of other faiths such as Christianity, Hindus, Sikhs, Parsis, also live in Pakistan. All people living in Pakistan are Pakistanis and feel proud to be living in Pakistan

**Conclusion:** 10 minutes

Explain to students what a fact file is. We can make a fact file on any country of the world if we know the basic information about that country.

Class work: Exercise A of the Work Page can be completed in class independently. Supervise their work.

**Homework:** Work Page Exercise B is to be done for homework.

**Lesson plan 8: Our country**

**Duration:** 40 minutes

**Objective:** To enhance students' knowledge about the main physical features of the country

**Outcome:** Students will be able to

- identify and define the physical features in the central, western and southern parts of Pakistan
- feel proud to be Pakistani, acknowledging what Pakistan has to offer

**Resources:** Textbook; atlas showing maps and pictures of Pakistan's geographical features; posters featuring the beautiful landscapes of Pakistan

**Introduction:** 10 minutes

Ask about the homework given in the previous lesson and let each student say the name of a country either smaller or larger than Pakistan. Encourage them for their efforts.

Talk to the students about all that our country has to offer—instil pride and patriotism in them. It is likely that students will talk about the problems we face in our everyday lives. However, explain that every country faces problems; some have more, some less. The most important thing is to make an effort to put things right and for each one of us to the best we can for our country and ourselves.

**Explanation:** 20 minutes

Recap the last lesson by reading the last paragraph on page 9, and continue further. Point out on the enlarged map the rivers and places named in the text. Show the western highlands and the deserts of Balochistan and the high mountain ranges of the north. Point out the deep valleys and the plateaus and central plains. Read through the text till the last paragraph.

Explain what mangroves are, where they are found and why they are valuable. Mangroves are trees that grow along the coastline, in shallow water. They are not only rich in marine life but are like nurseries for prawns and shrimps and certain types of fish; above all, they protect coastal areas from the damage caused by tidal waves and tsunamis.

Explain that in terms of climate and vegetation, they will study two main regions in the country, i.e. Western Highlands and the Indus Plains.

Draw the students' attention to the beautiful landscapes of Pakistan. If possible, arrange for a viewing of a documentary showing these natural features, and talk about them in brief. Stress on the point that Pakistan has a variety of physical features and every feature has its own value and importance.

Use the explanation on page 6 to elaborate on these topics.

**Conclusion:** 10 minutes

Questions at the end of lesson to be first discussed orally. Students will answer them in their notebooks for homework.

Next, explain what is meant by a relief map. Use the atlas to pinpoint the physical features shown in the map. Inform the students that they can also develop a model of a relief map using different materials. The next class will be used to develop a relief map of Pakistan as explained in 'Things to do'. Inform students about the materials they will need to bring to make the relief map of Pakistan.

Wind up the class by singing the national anthem of Pakistan together.

**Homework:** Questions on page 10 are to be done as mentioned above.

**Lesson plan 9: Our country**

**Duration:** 40 minutes (if required, utilize two periods for this task)

**Objective:** To give students a hands-on experience through group work

**Outcome:** Students will be able to

- create a relief map of Pakistan using various materials

**Resources:** Two plywood sheets, 60 x 120 cm as base, two large outline maps of Pakistan to be pasted on to the plywood; clay, soil, sand, stones/pebbles, green and blue glazed paper, paints; scissors

Note: read through the instructions on pages 8 and 9 of the Teaching Guide for conducting this activity.



**Activity:** 40-80 minutes

Divide the class into two or four groups and explain the task. Assign the responsibilities. Supervise and help the students in creating the relief maps. When dry, put the maps up for display in the school foyer.

**Conclusion:** Worksheet 3 from the Teaching Guide Appendix may be used for homework or as assessment.

## Lesson 4 The Western Highlands

### Lesson plan 10: The Western Highlands

**Duration:** 40 minutes

**Objective:** To familiarize students with two main climatic and geographic regions of Pakistan

**Outcome:** Students will be able to

- identify location and main features of the Western Highlands
- list the features of the Himalayas and Karakoram mountains in the north

**Resources:** Textbook; large size relief map of Pakistan and Asia, atlas; Teaching Guide for explanation

**Introduction:** 10 minutes

Begin with reference to the relief map activity: did it help the class to understand the physical features of Pakistan? Ask the students if they go to other places during their holidays for sightseeing. Has anyone visited the northern mountainous regions of Pakistan? Encourage students to talk about their trips: where they went, where they stayed, which special places they saw, what they ate, and what the mode of transportation was in these areas. Emphasize that the northern areas of Pakistan are one of the most beautiful in the world. People from other countries visit these areas in the summers for hiking and for mountain climbing. Tell the class that Pakistan's northern mountains have several of the world's highest peaks. Ask the students to bring photographs of their visit to the next class to share with others. Wrap up the discussion.

**Explanation:** 25 minutes

Introduce today's topic: the Western Highlands and the mountain ranges of the north. Put up a large poster size map of Pakistan and Asia in the class and with its help identify the regions covered by these. Explain that the map on page 12 of the textbook identifies the landforms of Pakistan; use the key to explain the features. The Western Highlands as the name implies are to the west, in Balochistan, this is a hilly, rugged region with low mountains and plateaus that stretches from the coast in the south up to the northwest; it is coloured mustard on the map. The Sulaiman-Kirthar ranges stretch parallel to the plateau and are marked by dark brown. The areas marked yellow to the north are the highest in altitude. The orange patch in between the high mountain ranges and plateaus identifies the Waziristan mountains that lie between Pakistan and Afghanistan. To its east are the Salt Range and Potohar Plateau while the eastern part of the map, coloured green, shows that Indus plains, right down to the sea.

Point out the cities, towns, rivers, hills, and mountains that form part of these regions. Invite the students to come forward and trace their fingers over the areas covered in this lesson.

Now read the text from the beginning to the end of the paragraphs on the Karakoram Mountains. Explain the word 'range' used for mountains that are formed close to one another as in the Himalayas, Karakoram, and Hindu Kush ranges.

Talk about the famous places and hill stations in the Lesser Himalayas, such as Murree, Nathiagali, Patriata, and Bhurban. Explain that roads made in the mountains are steep and have many curves and sharp bends—let some of the students describe their journey to mountainous areas. Only people



who are very skilled and experienced can drive on these roads as often there is a river or a deep ravine on one side and high mountains on the other.

With the help of the map of Asia show the students the spread of Himalayas in Asia covering Pakistan, India, Nepal, and Bhutan. Refer to the explanation and activity on page 9 of the Teaching Guide—this describes the formation, layout, and physical features.

Read the text on the Karakoram Range—it has the second highest peak in the world, Mount Godwin Austen, better known as K-2. Ask the students which is the highest peak in the world: it is Mount Everest, in the Himalayas in Nepal. The Karakoram Pass, Karakoram Highway and Khunjerab Pass are the main features of this area. The highway that goes through the Khunjerab Pass is known as the eighth wonder of the world. This road was built with the help of Pakistani and Chinese engineers and workers and took a long time to build. This route connects Pakistan and China. Chinese traders in the olden times used this route to sell their famous silk and other products in Europe, South Asia, and in the other countries along the way.

**Conclusion:** 5 minutes

Recap the lesson briefly and ask the class to read through the text again.

**Homework:** Ask the students to find out what the other wonders of the world are: explain that these are unusual and remarkable man-made features.

Remind them to bring some photographs of the places in Pakistan they have visited, to share with the class.

Note: the activities suggested in lesson plans 10 and 11 for the Western Highlands will cover those in 'Things to do' from the Work Page.

## **Lesson plan 11: The Western Highlands**

**Duration:** 40 minutes

**Objective:** To impart further information about Pakistan's mountain ranges

**Outcome:** Students will be able to

- identify the mountain ranges in Pakistan
- identify the Balochistan and Punjab plateaus

**Resources:** Textbook, atlas; map of Pakistan and Asia; if possible, pictures of the Seven Wonders of the World

**Introduction:** 10 minutes

Invite the students, one by one, to come forward and share their holiday pictures with the class. Encourage them to talk about the pictures and the places, as well. Alternatively, divide the class into pairs or groups and let them share their pictures among them.

Inquire about the Seven Wonders of the World students were supposed to research. Write the names of these places (listed on page 10 of the Teaching guide) on the board and assign the research on them, along with brief description and pictures as a group project. The students will learn more and remember by doing the task by themselves.

**Explanation:** 25 minutes

Provide a recap of the points covered in the previous lesson by asking questions, such as: name the provinces where the Western Highlands are located; what are the famous tourist spots found in the lesser Himalayas? Which is the highest peak in Pakistan and in which range? Which countries do the Himalayas extend into?

Read the text further on from the Hindu Kush on page 9 to the end of the text on page 10. (Use the explanation on pages 9, 10, and 11 of the Teaching Guide for reference.) Point out these regions on the map of Pakistan as the text is read. Explain how these mountain ranges act as natural barriers between Pakistan and its neighbours to the north and west. Within Pakistan we have the Potohar and Balochistan plateaus; the Potohar Plateau is home to the Salt Range which has one of the biggest salt mines in the world.

Ask the students to make a list of the provinces, cities, and some town, rivers and mountain ranges that make up the region of Western Highlands. This activity will help students to see the land area in Pakistan as a whole and in parts. Students can make use of the poster size map of Pakistan displayed in the class for this activity.

**Conclusion:** 10 minutes

Briefly discuss the questions on page 14. These will help in completing Work Page Exercise A as class work.

**Homework:** Work Page Exercise B is to be done for homework.

Class project on the Seven Wonders of the World and the Karakoram Highway should be done as a group activity within a week's time frame.

Note: Worksheet 4 from the Teaching Guide Appendix may be used for assessment.

## Lesson 5 River Indus and its plains

### Lesson plan 12: River Indus and its plains

**Duration:** 40 minutes

**Objective:** To define the importance of the River Indus and its tributaries for Pakistan

**Outcome:** Students will be able to

- list the uses of water for humans and other living things
- describe how a river originates
- explain the course of River Indus in their own words

**Resources:** Textbook, atlas, map of Pakistan

**Introduction:** 10 minutes

Begin with the question as to what is the most important thing on Earth for all creation. Possible answers will be air/oxygen, food and water. Tell the students that living things may survive for a while without food but not without air and water, as then there would be no life on Earth.

*Do you know?* A little more than two thirds of the Earth's surface is covered by water, mainly in the form of oceans and seas which have salt water. The rest of the water on Earth is in the form of glaciers, rivers, and lakes which comprise only three per cent of the total water on Earth. Even more amazing is the fact that the total amount of water on the Earth today is the same as it was when the Earth was first created: this water has been recycled by evaporation from the seas and formation of clouds which return it to the Earth as rain. And the process will continue as long as the Earth lasts—so we must use water carefully and never waste it.

**Explanation:** 20 minutes

Talk about the domestic uses of water, and note the students' responses on the board—humans need water for drinking, washing, cooking, and for farming and industry. Ask them how the land needs water: to grow crops, trees, plants, grass, vegetables, fruits, and flowers. Plants and flowers may not seem as essential to students for survival but explain that everything in nature has a purpose to serve and is important for the benefit and health of our planet.

Besides humans and plants, animals also need water to survive on land as well as in the sea. There would be no marine life without water, and we would have no fish or prawns to eat then!

Wind up the discussion emphasizing the importance of water for all living things, i.e. the people, animals, birds, and plants on the planet.

Read the text. Inform students that River Indus is the longest river of Pakistan. Explain the course of the Indus with the help of the map of Pakistan displayed in the class. River Indus is the principal source of water in the country. It gives us life. It flows for almost 3000 km from its source near Lake Mansorawar in the Himalayas. Starting as a rushing torrent in the mountains, the Indus flows down the plains of Punjab, where the tributaries merge at Panjnad and the Indus joins them further down at Mithankot. The Indus then runs its course through Sindh till it widens into a delta around Badin, to the south-east of Karachi, and falls into the Arabian Sea.

Explain to the class that since ancient times people have preferred to stay near the rivers and other water sources, which usually took care of all their needs in terms of irrigation and growth of crops. Civilizations grew and flourished into the banks of rivers. The great Indus Valley Civilization is one example. The importance of the River Indus can be judged by the fact that the entire subcontinent was named after this river—the Indian subcontinent.

Draw the students' attention to the photograph on page 16, which shows the breath-taking landscape of northern Pakistan. If possible arrange for photographs of the Indus Gorge in Gilgit-Baltistan, one of the deepest gorges in the world. (A gorge is the path of the river through ravines cut by the water.) Read the text till the top two lines on page 17.

**Conclusion:** 10 minutes

Ensure understanding of the content covered by asking for answers to questions 1, 3 and 4 on page 17.

Class work: Students list the names of the rivers that flow in Pakistan, in their notebooks.

With the help of the atlas or map of Pakistan, Work Page Exercise A is to be completed in class.

**Homework:** The activities listed under 'Things to do' may be done for homework.

## **Lesson plan 13: River Indus and its plains**

**Duration:** 40 minutes

**Objective:** To emphasize the proper use of water for agriculture

**Outcome:** Students will be able to

- understand the importance of water for agriculture
- understand the need to build dams and canals for water storage and distribution

**Resources:** Textbook, map of Pakistan and atlas; pictures of dams and canals: Worksheet 5 from the Teaching Guide Appendix

**Introduction:** 10 minutes

Take feedback from the students about the homework tasks: ask them to name major towns and cities along the River Indus and its tributaries from north to south.

Ask about the famous lakes in Pakistan: Lake Saiful Mulook in Kaghan, the Manchhar and Keenjhar Lakes in Sindh, the Hannah Lake and Hamun-e-Mashkel in Balochistan are some big lakes but there are many smaller lakes in the north, centre and then the south of the country in Sindh. Tell the students that Manchhar and Haleji lakes in Sindh are wildlife and bird sanctuaries protected under the UN conservation programme; many migratory birds come here in winter from as far off as Siberia. Ask the students if they have visited any of the lakes they have named.

**Explanation:** 20 minutes

Read the remaining text on page 17. Inform the students that the Indus Plains are the most fertile part of Pakistan due to the abundant supply of water and presence of good soil. The reason for good soil is that when the melting snows add water to the rivers, they flow fast, bringing down alluvial soil from the mountainsides. The best crops of the country are grown in this region. Punjab is called the granary of Pakistan as it grows the best cereals and grains, and profitable crops for the country.

Talk to the class about the need for dams and barrages. Show pictures of Tarbela, Mangla, Rawal and Hub dams, and the Sukkur Barrage in Pakistan. A dam keeps river water from flooding the surrounding areas. Extra water is stored in the dams to be used later for irrigation, and for domestic use by the population. Furthermore, the dams are also used to generate electricity. Explain briefly the mechanism of a dam and, particularly, its gates. Show the pictures of a dam with its gates opened and closed, and of the barrages as well to clarify their function.

Explain that canals are built outward from the dams to distribute water to the farmlands. Ask the students if they have seen a canal. Students living near Larkana may have seen the Rice Canal which waters the rice fields. Students in or near Lahore, or who have visited it, may recall the famous and beautifully decorated Canal Road.

Also emphasize that many industries, like steel mills, tanneries, textiles, and ceramics need ample supplies of water to operate. Hence we find that there are many industries too where there is a good supply of water.

Explain how parts of Pakistan, where there are no rivers but only seasonal streams after rain, are otherwise barren areas with poor soil and little or no vegetation, and too very low population. Ask the students why this is so.

**Conclusion:** 10 minutes

Recap the lesson by going through Questions 2 and 4 on page 17.

Class work: Work Page Exercise B may be completed in class with the help of a dictionary.

**Homework:** Worksheet 5 from the Teaching Guide Appendix is to be done for homework.

## Lesson 6 The soil and agriculture

### Lesson plan 14: The soil and agriculture

**Duration:** 40 minutes

**Objective:** To help students understand the importance of good soil for agriculture

**Outcome:** Students will be able to

- identify Pakistan as an agricultural industry
- realize the importance of soil and climate for agriculture
- identify the agricultural regions of Pakistan
- identify the ways in which good soil is damaged

**Resources:** Textbook, atlas; map of Pakistan

**Introduction:** 10 minutes

Greet the students and begin by describing countries that are industrial, agricultural or those that make their income through trade and business. Name a few of these other than Pakistan; then ask what kind of a country Pakistan is. Say that our main exports are agricultural products, such as cotton, fruit, rice, etc. Let the students respond, and then tell them that Pakistan is an agricultural country as most of its land is used to grow crops, fruits and vegetables and to rear livestock. Almost 60% of the population of Pakistan is involved in some form of agriculture.

**Explanation:** 20 minutes

Ask the class what is needed to grow good crops: sunlight, water from rainfall and rivers, and good soil which has the right amount of water, minerals and nutrients in it.

Read the text. Explain the map with its key to students. Read on to the end of the third paragraph on page 20 about the different kinds of soil in the country, which make a region fertile or a desert as in the eastern and western parts of Pakistan. Also refer to the map on page 12 of the textbook to identify the fertile region coloured green.

Balochistan and the northern most parts of Pakistan have very little agriculture. Ask the pupils why this is so. The Punjab has the best soil for growing crops because the rivers deposit new soil on the banks when they flood. Water is available through the canals that irrigate the land. The next farming region is Sindh, along the banks of the Indus. Along with grains, sugar cane and cotton, vegetables and fruits are grown in this region and livestock is also reared.

*Do you know?* Pakistan is now the third largest milk-producing country in the world because of the quality of its cattle.

Read on to the end of the text on Soil. Explain the process of erosion.

Explain that according to climate too, the crops grown across the country are different. Balochistan does not have large farms but there are fruit orchards where grapes, apricots, peaches, apples, and cherries grow very well. Ask the students if they have enjoyed the delicious fruit from Balochistan. Besides, sheep and goats are reared in large numbers in Balochistan. Similarly in the northern highlands, people practise terrace farming by carving out fields in the form of terraces along the mountain slopes, where they grow maize (corn), barley, and wheat, and also grow fruit. However, this is not an agricultural region; it is mainly forested.

**Conclusion:** 10 minutes

Discuss Questions 1, 2, and 3 on page 22 with the students. Note the important points on the board. Students should note these down for answering the questions in their notebooks for homework. .

Class work: The students may complete Work Page Exercise B in class.

**Homework:** Questions 1, 2, and 3 are to be done as explained above.

Ask the students to bring small amounts of different grains, pulses and seeds to the next class.

**Lesson plan 15: The soil and agriculture**

**Duration:** 40 minutes

**Objective:** To impart knowledge about the types of agriculture practised in Pakistan

**Outcome:** Students will be able to

- identify and describe the types of farming done in the country
- identify the crops grown in the country
- recognize the importance of livestock and poultry in farming

**Resources:** Textbook; samples of pulses, grains and seeds brought by students; pictures of different livestock and poultry; Worksheet 6 from the Teaching Guide Appendix

**Introduction:** 10 minutes

Greet the students. Ask them what they have had for breakfast and what they have brought for lunch to school. The likely response will be cereal, toast, jam, butter, eggs and milk for breakfast, and sandwiches or biscuits, potato crisps, etc. for lunch. Ask the class what is the main ingredient used to

make bread, what the source of milk and butter is; what is used to make jam, and where the eggs come from, etc. Many of the things we eat are made from the grains, vegetables, and fruit grown in our country and the livestock and poultry reared here.

Ask the students to place on the table the samples of pulses, grains, and seeds they have brought to the class. Let the students work in pairs to look closely at the shape, size, colour, and texture of these items.

**Explanation:** 20 minutes

Read the text on agriculture, page 21, and point to the pictures while explaining the text. Ask the class if anyone who has visited the northern areas recalls seeing terrace farms, especially in Swat and further north.

Discuss the various food crops grown in the different parts of the country, according to the soil and climate. Point out the oilseed crops, such as groundnuts, sunflower and mustard seeds, grown for processing into vegetable oil for cooking. Ask how many children remember the lesson from Class 2 about how corn kernels are processed to make corn oil. Refresh their memory by retracing the steps: corn is harvested and transported to factories where the seed/kernel is pressed to extract oil. Remind them that apart from making popcorn and roasted corn on the cob, corn is used for making corn flour, corn starch, and corn meal, etc. besides other uses.

Explain the difference between food crops and cash crops. Cotton is Pakistan's main cash crop, followed by tobacco, and the other crops listed in the book. Also point out that when a crop has a bumper harvest, more than the country's needs, the surplus amount is exported. Talk about how better farming methods can help to produce better harvests, in quality and quantity, so that the surplus can be exported to earn foreign exchange. Pakistan, being a mainly agricultural country, can and should improve its farm products.

Show the students a cotton boll or its picture, and a thread reel or a piece of cotton fabric. Explain cotton is grown on plantations, it is picked and taken to the mills and turned into yarn. Yarn is then used to make different kinds of cloth and material available in the country.

Talk about the vegetable farms and orchards in the suburbs of big cities, like Lahore and Karachi. Many students may have visited such farms during weekends or holidays for family picnics. Talk about the fruit and vegetables grown there like guavas and bananas grown in the Malir District of Karachi. Point out that while cereals grow best in the Indus Plains, other parts of the country have their specialities, like the dates grown in the Makran region, fruit in Balochistan, and the citrus fruit in upper Punjab, mangoes in lower Punjab and Sindh, and bananas in Sindh.

The next most important part of farming in Pakistan is the rearing of livestock, i.e. cattle, sheep and goats, and of poultry. Ask the students in what ways we use animals in Pakistan. Animals provide us with milk, and meat; poultry provides us with meat and eggs. Poultry farms are to be found in the suburbs of many cities, and large scale poultry farming is done for processing the meat sold as frozen products. Ask the students to name a few.

Wool from sheep and goats is used for making rugs and carpets. Animal skins are 'tanned' to make leather for making shoes, bags, belts, gloves, and jackets; tanning is a process by which these skins are made into leather in factories. Pakistan's leather products are of very good quality and are exported to many other countries in the world. Cattle are also used on the farms and fields to pull ploughs, turn water wheels, and carry loads from one place to another.

Ask the students about other animals reared in Pakistan and what they are used for, such as horses and camels.



**Conclusion:** 10 minutes

Class work: Students should complete Work Page Exercises A and C in class.

Recap the lesson by discussing Questions 4 and 5 given at the end of the lesson. Question 5 requires critical thinking: it links to the paragraph on erosion, on page 20—that forests prevent erosion and conserve good soil which is an essential requirement for farming.

**Homework:** Worksheet 6 from the Teaching Guide Appendix is to be done for homework. The first and third activities of ‘Things to do’ can be done as pair or group work; the teacher’s input will be required for the first activity.

## Lesson 7 Forests

### Lesson plan 16: Forests

**Duration:** 40 minutes

**Objective:** To impress the importance of forests in the balance of nature in a region

**Outcome:** Students will be able to

- realize the need for forests for a sustainable life
- identify some types of forests found in Pakistan
- locate the different kinds of forests on an outline map of Pakistan

**Resources:** Textbook; pictures of different kinds of forests, outline map of Pakistan

**Introduction:** 10 minutes

Welcome the students. Write the word ‘forest’ on the board and ask them what they already know about forests. List the responses on the board. Encourage all the students to share something about the topic. Talk about forests in general—where do we find dense jungles, tall pine trees, other types of forests, and what else do we find there besides the trees and plants? Let the students share a story if they have seen or visited a forest. For example, we have tall pine trees in our northern mountainous regions, such as in Murree, around Abbottabad and further north in Kaghan and Swat. Such forests are also found in the USA, Canada and in Central and North Europe. Dense deep jungles are found in places like the Amazon Basin in South America, in South-east Asia and the Congo Basin of Africa.

Besides the plants and trees, there is a lot of wildlife, including reptiles, birds, and insects, in these forests and jungles. Talk about some of the animals found in these forests. Encourage the children to watch informative television programmes like ‘Animal Planet’.

**Explanation:** 20 minutes

Inform students that nature, sunshine, clouds, rain, and the atmosphere work closely together with the physical features of the land to produce an ideal climate. Trees and plants attract rain, and clean the air as they inhale carbon dioxide and exhale or give out oxygen which all humans and animals need to breathe and survive. The land needs rain so that we can (a) grow crops (b) our livestock can feed on the grass and plants that grow on the land and (c) our rivers have a steady and sufficient supply of water for our needs.

Read the text. Show students pictures of the types of forests found in Pakistan and of some rare animals that live in these forests. Ask the students to find out and list the wild animals and where they live.

Draw the students’ attention to the map on page 24: it shows the location of forests in Pakistan. Ask the class to look at the colour key and match it with the corresponding areas on the map. They will notice that we have a variety of vegetation in our country from north to south.

Show the students pictures of forests in the Alps. Inform them that places which have similar climatic and physical conditions have many similar features too, like types of forests and wildlife. Talk about the Alpine forests in the north of Pakistan. Read the text further till the end of the paragraph on Thorn or *Rakh* forests. Students may have seen acacia trees growing on mostly dry, uncultivable and uninhabited land. Such trees are very hardy and survive despite the lack of water and good soil.

**Conclusion:** 10 minutes

Class work: Distribute copies of the outline map among the students; ask them to mark the locations and write the names of places where alpine, coniferous, dry forests and thorn or *rakh* are found.

Recap the lesson by going through the main ideas covered in the lesson. Discuss the first two questions on page 26.

**Homework:** The first activity of 'Things to do' is to be done for homework. Students should also find out and write the names of the trees they have drawn.

## Lesson plan 17: Forests

**Duration:** 40 minutes

**Objective:** To impart further knowledge about types of forests and the need for conservation

**Outcome:** Students will be able to

- identify more forests and plantations
- know why forests are so useful
- understand why forests must be protected

**Resources:** Textbook, atlas; pictures of forests also showing wildlife

**Introduction:** 10 minutes

Begin by asking students about the kinds of trees they observed around their homes and on the way to school. Enquire about the homework and let the students share their drawings of the trees. Encourage them to talk about the height of the trees, colour and size of the leaves, any fruit or flowers they observed on them, and the names of the trees. Appreciate the students' work.

**Explanation:** 25 minutes

Resume the reading of the lesson from the text on mangroves. Ask if any of the students have seen the mangroves in the coastal areas of Karachi or in deltaic regions such as Badin. In Karachi, mangroves are found near the beach at Clifton as well as the other stretch of beach called the Hawkes Bay. Mangrove forests are very important for marine life as they act like a nursery for it. Shrimps and fish found in the mangroves are of good quality. They also protect the region from natural disasters such as storms and tidal waves from the sea.

Explain what is meant by riverine forests and the type of trees found there; as the name implies, such forests are found along the river banks. Point out where the largest riverine forests are found in Pakistan. Plantations are man-made forests which not only provide natural balance but also provide us with valuable products. Discuss the uses of forests and their products: the wood is used for furniture, construction, and also as fuel where people do not have access to piped gas. The bark, leaves, flowers and fruits of many trees and plants have medicinal value, and some are used as spices. Cinnamon, for example, is the bark of a tree, and cloves, cardamom, nutmeg, etc. all come from different plants.

Show the class pictures of tea and spice plantations in Sri Lanka, rubber and oil palm plantations in Malaysia, coconut plantations in many of the South-east Asian countries, and coffee and cocoa plantations in Africa and South America..



Ask the students to take out the outline map of Pakistan they worked on in the previous lesson. Ask them to add the location and names of places where the mangroves, riverine forests and plantations are found.

Discuss Questions 4 and 5 on page 26. Note the students' responses as points on the board. Students should then write the answers in their notebooks in class.

**Conclusion:** 5 minutes

**Homework:** Exercises A and B of the Work Page to be completed for homework with the help of the text.

Wrap up the lesson by asking students to do the second activity from 'Things to do'. They should also find out and write the name of trees whose leaves have been collected.

Ask the students to bring one small wooden object, such as a carved animal, or a spoon, etc. from their homes.

## Lesson plan 18: Forests

**Duration:** 40 minutes

**Objective:** To emphasize the usefulness of forests and the need to protect them

**Outcome:** Students will be able to

- identify the uses of forests and their products
- understand the need for conservation of forests

**Resources:** Textbook; Teaching Guide text for explanation; a documentary or video clip on making paper from wood pulp; wooden objects brought by students; a branch of a *neem* tree; Worksheet 7 from the Teaching Guide Appendix

**Introduction:** 10 minutes

Greet the students and enquire about the homework. A show-and-tell activity can be done at this point. Students share the objects they have brought along and talk about them: what it is, what it is made of, where it comes from, etc. Also highlight the many uses of the bamboo plant, particularly in China and South-east Asia where it grows in abundance. Ask the students if they knew which animal eats bamboo shoots and leaves (the panda). Appreciate the students while wrapping up the activity.

**Explanation:** 20 minutes

The importance of forests cannot be underestimated; read and explain this to the class. One of the most important uses of forests is for making paper—ask what the book they are reading would be made of if there were few or no trees! This is one of the reasons why forests should be protected and trees should be replanted. Careless cutting down of trees causes 'deforestation' as has happened in the north-west of Pakistan, hence it is very important that 'reforestation' should take place by planting trees to replace those that have been cut down. Emphasize that it takes years for a tree to grow tall and strong but just a few hours to chop it down. Reforestation not only keeps the forests alive but protects the natural habitat of many animals, birds, insects and reptiles.

Show students the branch of a *neem* tree. Ask them to notice that *neem* trees are usually grown in and outside the homes in Pakistan. The *neem* is also a natural pesticide and if planted at distances on farmlands and fields, it protects the crops from harmful pests.

Use the explanation in the three paragraphs following the suggested activity on page 16 of the Teaching Guide to enhance students' knowledge.

Arrange to show the documentary/video clip on making paper from wood pulp. Then ask the students if they have any queries. Briefly explain the process and then ask them to write the steps in their notebooks. Take rounds to assist those who need help. Encourage the students to make some drawings to accompany the text they have written.

**Conclusion:** 10 minutes

Students share the different kinds of leaves they have collected. Ask them to talk about the colour, size and shape of each leaf. Explain how the leaves are to be pressed and then pasted in a scrapbook. A similar exercise can also be done with flowers.

Re-emphasize the points discussed about conservation of forests. Encourage students to plant trees in their gardens and/or outside the boundary walls of their homes. Talk about the hobby of gardening that many people adopt all around the world. Wrap up the lesson by making a pledge to protect the environment by protecting trees and plants.

Note: Students' interest and understanding can be developed by organizing quiz competitions in the class, based on the lessons they are learning.

**Homework:** Worksheet 7 from the Teaching Guide Appendix is to be done for homework.

## Lesson 8 Water and its uses

### Lesson plan 19: Water and its uses

**Duration:** 40 minutes

**Objective:** To highlight the importance of water

**Outcome:** Students will be able to

- list the uses of fresh water
- identify the sources of fresh water
- understand the water cycle

**Resources:** Textbook, atlas; a globe and pictures of lakes, rivers, glaciers, etc.

**Introduction:** 10 minutes

Begin by reminding students of the lessons on water, learnt in Class 3: find out how many of them remember the important facts about water.

Ask them how many times they use water from morning to night—from washing and taking a bath in the morning to drinking water during snack time and meals, and swimming for exercise and recreation. Ask them how water is used at home—for washing, cooking, gardening, cleaning, etc. What other uses of water can they think of? List their responses on the board. When the list is done, go through it with the class.

Talk about the importance of water for survival of life on the planet. Show the students a globe or point to the world map. More than two thirds i.e. seventy one percent of the Earth is covered with water. The human body also has the same ratio of water—two thirds. If the water in our bodies dries up due to dehydration we can die. We need to keep our bodies hydrated by drinking ample water every day.

**Explanation:** 20 minutes

Read the lesson. Write 'natural resources' on the board and explain that natural resources are those things which are found in or on the Earth naturally and usually in large quantities. Ask students to name some natural resources. The list would include water, air, rain, forests, minerals, etc. Water is one of the most important natural resources. Explain to the students the reason why the other planets in our solar system are not inhabited by life—it is because of the absence of water.

On the Earth there are basically two sources of water: salt water from the oceans and seas, and fresh water from rain, snow, glaciers, rivers, and lakes on the land.

Draw a bigger diagram of the water cycle for all students to see it clearly. Explain the water cycle with the help of the diagram. Point out that since that not every place on the land receives the same amount of rain, fresh water is stored for later use for irrigation of land and farming or to supply it to areas where there is a shortage. Dams, reservoirs and tanks are built to store water for later use. Canals are also built to take water to the drier parts of the country. Pakistan has the largest canal system in the world; this should be maintained and kept functional by keeping the canals clean and free of silt and other blockages.

Class work: Students can complete Exercise B of the Work page in class.

**Conclusion:** 10 minutes

Wind up the lesson by recapping the points covered in the lesson. Discuss questions 1 and 2 on page 28 and note the important points on the board.

**Homework:** Students should answer Questions 1 and 2 in their notebooks for homework.

Ask them to work on the second activity of 'Things to do'.

## **Lesson plan 20: Water and its uses**

**Duration:** 40 minutes

**Objective:** To help students identify man-made sources of fresh water

**Outcome:** students will be able to

- identify how water is conserved
- identify the ways we control and channel our water supply
- identify further uses of water

**Resources:** Textbook, atlas; pictures of canals, dams, and barrages collected by the students

**Introduction:** 5 minutes

Greet the students. Continue the topic of the lesson by going through the points covered in the previous lesson.

**Explanation:** 20 minutes

Read the text about wells and tube wells. Ask the students if they have seen a well or a tube well. Explain why wells were dug and how this process takes place now. Also explain how water is stored underground—it seeps through the soil after heavy rains and collects where it is blocked by hard rocks. However, sometimes even well water is salty, especially in areas where the soil has too much salt in it or in areas close to the sea, as in Clifton and other localities near the sea, in Karachi and along the coastal delta region; it is not suitable for human consumption or agriculture.

Tube wells are an important source of water especially for irrigation and farming purposes. Explain how tube wells are dug with the help of the text.

Dams have been built in the northern part of the country to store water from the fast flowing rivers that emerge from the mountains of Pakistan. The movement of water is controlled by huge gates that open and close the water supply as required. Show the class the picture of Tarbela Dam which controls and channels the water of the River Indus; draw their attention to the vast volume of water gushing out from the gates.

Point out that dams are also utilized to produce electricity. Explain how electricity is generated. When the gates of a dam are opened to allow water to rush through the turbines, as explained in the text. The generator changes the power created by the turbines into electricity. Electricity generated this way is called hydroelectricity.

With the help of the atlas, locate the main dams in Pakistan. The Warsak Dam is built on River Kabul; Tarbela Dam is built on River Indus, and Mangla Dam is built on River Jhelum. The Hub Dam in Balochistan (near Karachi) is built on the Hub River. There are several smaller dams in the country, such as the Rawal Dam and Khanpur Dam near Islamabad, and there are barrages in Sindh at Kotri and Sukkur, downstream from the Indus River.

**Conclusion:** 15 minutes

Ask the students to complete the Work Page Exercise A as instructed. Encourage them to maintain a glossary of special terms from Social Studies to increase their knowledge.

Discuss questions 3, 4, and 5 on page 30 with the students. They will answer these in their notebooks for homework.

Ask the students to put together the pictures of dams that they have collected as a collage on the class board. The name of the dam, its location, and the river on which it is built should also be mentioned.

**Homework:** Questions 3, 4, and 5 are to be done for homework.

Ask the students to bring pictures and toy samples or models of marine life for a class activity.

## **Lesson plan 21: Water and its uses**

**Duration:** 40 minutes

**Objective:** To reinforce learning through activities

**Outcome:** Students will be able to

- engage in creative work by making a collage for class display in groups
- identify the ways in which sea water is useful

**Resources:** Textbook; pictures and models of marine life; chart papers, glue and markers

**Explanation:** 15 minutes

In the previous two lessons the discussion has been focussed on the uses and importance of fresh water. Ask the students about the uses of sea water. Ask them to suggest a list. First of all, the seas are the source of moisture for the rain clouds. Seas and oceans are also home to a huge variety of marine life. Salt obtained from sea water is an important ingredient used in cooking and food preparation and preservation. Salt has medicinal uses as well; it is also used for tanning hides and skins.

Let the students suggest how they use salt in their daily life—mostly to sprinkle over eggs and to add to food. Tell them that salt was a very valuable substance in olden times and the Romans used to pay their soldiers partly in cash and partly in salt!

Ask the students to share the pictures of sea animals. Tell them that scientists think there are many kinds of sea animals that have not yet been discovered. Show pictures of some exotic fish and other sea creatures. There are also vast reserves of mineral and other resources in the sea and under the sea bed, like oil. Inform them about the oil exploration in the North Sea, off the British coast. There are also many marine plants which have medicinal value but they have not been explored as yet.

Ask students if they have seen the animated movie 'Finding Nemo'. The place where Nemo lived was called Molasses. It is a kind of sea plant. If possible, arrange the movie show for the students.

The last activity of 'Things to do' can now be completed in the notebooks in class.

**Activity:** 20 minutes

Divide the students into two groups and provide them with the required materials such as chart paper, glue stick, paper scissors, and markers.

Help them create a collage and a diorama showing the 'Sea World' by pasting the pictures on the chart paper which has been coloured as the background for the sea and sea bed. The toy samples and models can be used for the diorama.

Display these and applaud the students for their efforts. Display the collage work in the class and on the boards. If possible, invite other sections to come and have a gallery walk.

Note: Worksheet 8 from the Teaching Guide Appendix can be used for assessment.

## **Lesson 9 Power, minerals, and industries**

### **Lesson plan 22: Power, minerals, and industries**

**Duration:** 40 minutes

**Objective:** To point out the requirements for industry in a country

**Outcome:** Students will be able to

- differentiate between an agricultural and industrial country
- identify the requirements for an industrial country
- know about and identify the types of power

**Resources:** Textbook; pictures of industries and power generation; Teaching Guide for explanation

**Introduction:** 10 minutes

Remind the class that in Lesson 6 of the textbook, they studied about Pakistan being primarily an agricultural country. Write agriculture in a bubble on one side of the board. Ask students to recall what the requirements are for good agriculture and farming. The answers should include good soil, water, adequate amount of rainfall, etc.

Explain that agricultural countries develop industries to process their agricultural products for home consumption and export. Give examples of dairy products as they have learned in the previous lesson that Pakistan is now the third biggest producer of milk in the world; this is used to produce other items such as cheese, ice cream, yoghurt, cream, etc. which are sold in the market. There are many multinational dairy industries which are also working in Pakistan, mainly in Punjab, which is the centre for dairy production.

Discuss other food industries with the students, such as bottled, tinned, and packaged food products. Ask for examples—jams, juices, tinned fruit and vegetables, and cooked and frozen products.

Now explain how countries gradually become industrialized. Industry means producing or making things on a large scale. Science and technology play a large part in industrialization. Ask students what the requirements are for developing industry. Note their responses on the board, and tell them that these will be checked and added to as the lesson progresses.

**Explanation:** 20 minutes

Read the first paragraph of the lesson. Explain to the students what a country needs to become industrialized. Now return to the students' suggestions noted on the board. Take each item one by one and explain why it is or it is not essential for an industrialized country; delete those which are not required, and go through the list of essential requirements once again with the class. Appreciate the students for their responses.

Before reading the next paragraph, explain why power is most important for industry, and point out the various sources of power. Read the text further. Explain that power generated through water is called hydroelectricity (hydro = water). Explain this process of power generation using the topmost diagram on page 32. Remind the students that the dams and barrages in the country, especially in the north where the rivers are fast-flowing, are used for power generation. Also explain that when the volume of water in the rivers and dams drops due to poor rainfall, power generation also becomes a problem. (Unfortunately, we are all too familiar with power outages and load-shedding.)

Next, explain the term ‘thermal’ which is linked to heat or high temperature. The heat produced from burning coal, gas, and oil is used to generate electricity. This is called thermal energy. Explain the process with the help of the diagram. Note the locations of the thermal power plants.

The third important source of energy is nuclear energy. Explain why this is not an easy option and that only advanced countries use nuclear power. Also highlight the dangers of nuclear power plants. In Pakistan we have two such plants—ask for their locations.

Identify the other ways of producing power; biogas from animal waste and ethanol from sugar cane and maize waste products are used to produce power. Test the students’ understanding as to why animal and agricultural waste can be used as fuel in Pakistan—it is because Pakistan is primarily an agricultural country.

Draw the students’ attention to the two other sources mentioned in the text: solar and wind energy. In Pakistan particularly which has more than 300 days of sunshine, solar energy is a viable option. The cost of setting up solar panels is quite high, but once in place, they work effectively. Since sunshine is a free gift from nature, only the solar panels, and storage and distribution have to be taken care of. Point out the solar panels and windmills and ask the students if they have seen any of these.

Solar panels have been set up on rooftops by some people to provide electricity for homes and apartments. The case is similar with wind energy; one sees wind mills set up in many areas now, which in turn power the turbines that produce electricity. It is important to explain the illustrations accompanying the text to clarify students’ concepts.

Finally, explain the importance of water for industry. It is the most essential and important resource which is required both for agriculture as well as industries. The uses of water are highlighted in the text, and also the need to locate industries where water is easily available.

**Conclusion:** 10 minutes

Recap the lesson by reiterating the main points covered.

As advised in the activity on page 18 of the Teaching Guide, ask the students to give examples of how mechanization, i.e. the use of machines, has made life easier for people over time. Some examples would be tractors over animal-drawn ploughs for farming; trucks and trains over animal drawn carts to transport food crops, poultry, and livestock; kitchen appliances over hand-powered grinding stones, etc. and computers over typewriters over pen and ink for transcribing/producing texts.

**Homework:** The second activity of ‘Things to do’ and Work Page Exercise B are to be done for homework.

## Lesson plan 23: Power, minerals, and industries

**Duration:** 40 minutes

**Objective:** To highlight the importance of raw materials for industry; to identify the types of industry in Pakistan

**Outcome:** Students will be able to

- understand the requirements for setting up an industry
- identify the different kinds of industries in Pakistan.

**Resources:** Textbook; atlas; examples of some minerals in raw as well as finished form (including semi-precious stones, gold, silver); some metallic objects

**Introduction:** 10 minutes

Welcome the students and enquire about the homework. Ask them to share the responses for the 'Things to do' activity; what machines, appliances, and gadgets did they identify and how many of them were made in Pakistan. Which other country were most machines, gadgets etc. made in?

This will be a lively discussion, and it will not be surprising that most things will have been made in China!

Show the class the collection of metallic objects and samples of raw materials. Let them guess the metal each object is made from. Show the semi-precious stones too and tell them the names of commonly used stones such as garnet, zircon, amethyst, ruby, turquoise, and emerald.

**Explanation:** 20 minutes

Read the text onwards from the last paragraph on page 33. Define the term 'raw material' i.e. something found in its natural original form, and not manufactured or man-made. Explain the importance of adequate supply of required raw materials for industry. The first requirement for industry is the machines that are necessary for it. The next requirement is water both to power industry and for its washing and processing needs. Another important requirement is fuel—fossil fuel, such as oil, gas, or coal—to run the machines. The main component of machines is metal, hence a country that has adequate supply of good quality iron ore, water and a steady supply of fuel can be industrialized. Ask the students if anything is missing in this list—yes, it is manpower. A country needs skilled workers, engineers, planners, and scientists to help set up various industries.

Draw the students' attention to the pictures of raw and processed materials on pages 33 and 34. Compare the nugget of gold in the photograph to the gold ring or earrings someone may be wearing. Show the pictures of precious stones; Pakistan has high quality emeralds in Swat. Ask if anyone in the class has seen a real emerald. Inform the students that large reserves of copper have been discovered in Balochistan at a place called Reko Diq. Copper is used mainly for making electricity cables as it is a very good conductor. Usually gold is also found where there is copper, so Reko Diq also has gold reserves. But the most important asset of Balochistan are the natural gas fields, commonly known as Sui Gas because that's where it was first discovered.

There are coalfields in Balochistan as well as in Sindh. Ask the students if anyone can name the large coal reserves discovered in Sindh (Thar coal fields). Ask about the different ways in which these fuels are obtained from the ground: oil and gas by drilling, and coal by mining.

Explain the requirements of setting up an industry or a factory. Ask the students if anyone of them has ever visited a factory with the school or with someone in the family. If yes, let them share their experiences with the class.

Identify the main industries present in Pakistan: Iron and steel, engineering, fertilizers, chemicals and cement, and textiles. Point out their locations, their raw materials and finished products, and their importance for the country.



Explain and describe a cottage industry. These industries are found all over the country in many different places. The local raw materials and the skills of the local people are used to produce the objects, such as rugs, carpets, shawls, embroidered clothes, pottery, and decorative metalwork, in these cottage industries.

**Conclusion:** 10 minutes

Questions given at the end of the lesson are to be discussed as a recap of all the major ideas covered in the lesson. Questions 1 and 2 call for lengthy answers and will need assistance from the teacher. Note down the responses to these on the board.

**Homework:** Questions 3, 4, and 5 are to be done for homework in the notebooks.

## **Lesson plan 24: Power, minerals, and industries**

**Duration:** 40 minutes

**Objective:** To reinforce learning through practical work

**Outcome:** Students will be able to

- plot the major industries on the map of Pakistan
- produce a text on any one industry of their choice

**Resources:** Textbook, atlas; an enlarged map of Pakistan

**Introduction:** 5 minutes

Put the large map of Pakistan on the board for the students' reference.

Begin the lesson by explaining today's tasks. The class will do Work Page Exercise A individually with the help of the textbook.

They will then do group work to complete the first activity of 'Things to do'.

**Activity 1:** 10 minutes

Work Page Exercise A is to be completed individually. Students should refer to the text (page 34) to identify correctly the places/cities where the various industries are located. Ask the students to take help from the map of Pakistan displayed in the classroom. Take rounds to make sure students are on the right track and are correctly marking the locations. Ask the students to use the symbols given for each industry to mark its sites on the outline map.

**Activity 2:** 20 minutes

The first activity of 'Things to do' is to be done next. Divide the class into four or five groups, and assign one industry to each group. For example:

Group A—Engineering; Group B—Textiles; Group C—Fertilizers; Group D—Iron and steel; Group E—Cement.

Students work as a team to find out where their assigned industry is located, where the power comes from, what raw materials are used and what the end products are. They will then write a short paragraph of not more than 100 words about the industry, and read it out in class.

**Conclusion:** 5 minutes

Wind up the lesson. The activities will have helped to reinforce the learning.

Worksheet 9 from the Teaching Guide Appendix may be used for assessment.



## Lesson 10 Transport

### Lesson plan 25: Transport

**Duration:** 40 minutes

**Objective:** To highlight the importance of good transport facilities for a country

**Outcome:** Students will be able to

- explain the importance of transport for people
- understand the importance of transport for a country's progress
- discuss the different modes of communications

**Resources:** Textbook; Teaching Guide for explanation; pictures of different kinds of roads and bridges in other countries, trains and railways; enlarged map of Pakistan; a city road map, if possible

**Introduction:** 10 minutes

Begin by asking if anyone of the students has undertaken a journey to another city or country in the recent past. What mode of transport did they use? How long did it take them to reach their destination? Let students share their responses. Wind up the discussion by informing students that they will learn about transport which refers to the different modes of moving goods and people from one place to another.

**Explanation:** 25 minutes

Remind the students about the lesson in Class 3 about transport and the different means of travel and movement. In the earliest days, people went on foot till they learned how to tame and domesticate animals for their use. Camels and horses were used and then with the invention of the wheel, it became easier to move goods and more people in carts. With time, and advancement in science and technology, modes of transport have become more specialized and effective as well as speedy on land as well as on water and in the air.

Test the students' memory: ask if they remember the types of transport studied in Class 3. There are motorboats and speedboats on lakes and seas, huge tankers and container ships for carrying oil and cargo. On land there are all types of cars, motorcycles, buses, trucks, heavy duty trucks which carry cargo inland from the ports, and trains. In developed countries, there are very fast passenger trains within the cities, and also bullet or maglev trains. Ask students which, they think, the fastest and the safest modes of travel are: the fastest are airplanes, then cars and trains, and then ships.

In order for land transport to move safely and fast from one destination to another it is necessary to have a good network of roads and railways. Explain that it is very important for a developing country, to have a good transport system to move people and goods from one place to another.

Read the text on roads. Ask the students on which road their school is located, and to name the road where they live and also some of the famous and well-known roads of their city/town. Ask them if they have travelled within the country by road, using the intercity highways and motorways. Encourage them to share their experiences. Show them pictures of roads from different parts of the world. An interesting picture to show would be of multiple interchanges at one point found in many advanced cities of the world such as Tokyo, Los Angeles, etc.

Read the text on railways. Ask the students to share an experience of travelling by train. Inform them that in many places in the world trains are a regular mode of transport even within the city. For example, in Mumbai approximately two million people travel by train everyday from work/school/college to home and vice versa. Similarly, in England even high officials use underground trains to reach their work place. They use their cars mostly on weekends.

Tell the children about the recently inaugurated business class express train service from Karachi to Lahore.

Show the class pictures of the super-speed trains of France, Japan, and China—bullet trains, and maglev. Do some prior research and tell the class how these trains achieve such speeds and how they operate. Ask the students who have visited places like Bangkok, Singapore, Dubai and western countries if they have travelled on the computerized trains used for public transport within the city. Did they see any engine driver? (There's no driver or operator as the trains are computerized—controlled and programmed by computers!)

**Conclusion:** 10 minutes

Recap the main points of the day's lesson by discussing Questions 1 and 2 on page 41; note the main points on the board.

Next, the first activity of 'Things to do' is to be completed by students in pairs. They can make use of the map of Pakistan displayed in the class or use an atlas.

Move around the class as the activity is being done and help where necessary. Students share their work with the class. Appreciate their efforts.

**Homework:** Questions 1 and 2 from page 41 are to be answered in the notebooks for homework.

Ask the students to bring some pictures of different kinds of aircraft and ships.

## Lesson plan 26: Transport

**Duration:** 40 minutes

**Objective:** To enhance students' knowledge about modes of air and sea transport in Pakistan

**Outcome:** Students will be able to

- know more about the origin of air travel and its use in Pakistan
- appreciate the role of shipping for transporting cargo

**Resources:** Textbook; atlas; pictures of various aircrafts and ships; Teaching Guide for explanation; Worksheet 10 from the Teaching Guide Appendix

**Introduction:** 5 minutes

Greet the class and collect the homework.

Introduce the day's topic, various modes of transport by air and sea. Ask the students to show the class the pictures of various aircrafts and ships they have brought, and to say briefly what they know about them. You can add to the information—some prior preparation is needed on the teacher's part.

**Explanation:** 25 minutes

Begin by talking about the beginning of air travel, the first aeroplane, first flight, what inspired people to fly, etc. Man has always been fascinated by birds and the ease with which they soar to the sky and fly about. Tell the class the Greek legend about Icarus, whose father used birds' wings joined together by wax to enable him to fly; Icarus was able to fly, using his 'wings' and wind power, but one day he flew too high and the Sun's heat melted his wings, and Icarus fell into the sea and was drowned.

However, early scientists have seriously worked on how to achieve flight; the first one was Abbas Ibn Firnas from Muslim Spain, in the 9<sup>th</sup> century CE and the other well-known person was the Italian Leonardo da Vinci in the 15<sup>th</sup> century. They designed gliders that could carry them a short distance in the air. Ibn Firnas was the first to test his glider and flew a short distance; but he crash-landed on his return.

Read the text on airways. Give some background of PIA, Pakistan's national airline. It was the first in Asia to use jet aircraft, the Boeing aeroplanes. PIA used to have a very successful record in civil aviation and very good service. Now with a much larger population, there are private airlines in the country as well. Ask the students to name some of the private air carriers operating currently in the country. Explain to students the difference between the national carrier and private carriers. List the names on the board. Students may copy them in their notebooks. Explain that apart from passenger service, aircraft are used for cargo and courier service delivery as well. Point out on the map of Pakistan the locations of the international and domestic airports in the country.

Read the text on shipping. Ask the students if they have seen any port or harbour area with ships docked there. Children who live near the coast, such as in Karachi, may be familiar with launches and motorboats used for crabbing trips or just a cruise around the coast. In Europe and the USA people go on pleasure cruises on luxury liners; and in South-east Asian countries, boats are used for transport of people and goods between the hundreds of islands. In Pakistan and most other developing countries with a coast line, passenger ships are seldom used, but cargo ships are used for transporting various types of solid and liquid goods.

Show the students pictures of different kinds of ships used all over the world. Pictures of state of the art modern cruise ships would be an interesting thing for students.

**Conclusion:** 10 minutes

Questions 3, 4, and 5 at the end of the lesson may be discussed orally. This will provide an overview of the lessons as well. Students may later write the answers in their notebooks.

Work Page Exercises A and B may be completed in class individually. Take rounds to supervise students' work.

**Homework:** Worksheet 10 from the Teaching Guide appendix is to be completed for homework. Students should research for the second activity of 'Things to do' and bring the facts to class for the next lesson.

## Unit 2 Citizenship

### Lesson 11 Communications

#### Lesson plan 27: Communications

**Duration:** 40 minutes

**Objective:** To inform students about citizenship and the importance of means of communication

**Outcome:** Students will be able to

- know what is meant by 'communications'
- identify the different forms of communication
- differentiate between old and new means of communications

**Resources:** Textbook; Teaching Guide for explanation; an envelope with a name, an address and a stamp pasted on it

**Introduction:** 10 minutes

Write the term 'communications' on the board. Ask the students to say what comes to their mind when they hear or read this word. Note their responses on the board. Underline the responses that include modes of travel and kinds of transportation. Inform the class that this part of communication has been dealt with separately. The form of communication we will now learn about is to communicate, i.e. talk or write or send and receive messages to someone; to put one's thoughts, opinions, and ideas across to anybody in this world. Explain that it is the right of citizens to communicate freely with each other, and to be informed about their own country as well as the world.

**Explanation:** 20 minutes

Read the text. Explain that the process of teaching and learning is also a form of communication when one person is sharing knowledge with another.

Ask the students how we stay in touch with people and events happening all around the world. Radio, television, telephone, computers, newspapers, and letters communicate the news to us. Read the text further on. Explain that although in modern countries post offices seem to have little use, they are very useful in countries where the majority of the people have little or no access to modern technology. Post offices not only send and receive mail, but they fulfil other functions too as sending out money orders, delivering pension funds in remote places which have no banks, sending and receiving parcels at less cost than the courier companies, etc.

Ask the class what else we use the post office for: give a few clues, e.g. at Eid or Christmas and New Year (to send greeting cards). Remind the students of the exercise done in earlier classes to write and send an addressed envelope: what is required to be put on the envelope to make sure it reaches its destination? It should have the name of the person, his/her complete address, and a postage stamp. A postage stamp is the fee paid to the post office for carrying the letter to its destination. Some people also collect stamps as a hobby. Sometimes countries launch stamps to mark some special occasions and events for a limited time period. Rare and old stamps are valuable and sometimes sold at a high price at the auctions.

As an activity, the students can be asked to make a card for their grandparents, parents, or a favourite aunt or uncle and then put the correct name and address on the envelope and post it with the proper stamp.

Read the text on email. Explain how technology has advanced by leaps and bounds in the last few years making communication a very rapid process as compared to the past. For comparison, tell the students how it used to take weeks for letters and news despatches to be sent from one place to

another; and among people who were not literate, smoke signals or sound signals were used to communicate. Ask the students how many have access to and can use computers, have email accounts. Note their responses. Ask students about the essential requirements for an email account: a username, name of the service provider, such as *hotmail*, *yahoo*, *gmail*, etc. and a strong password. Ask the students if anyone knows the use of a password—it is like the user's own key to allow him/her to send and receive messages. Impress on the students how fast the Internet works and is therefore a popular form of communication.

Many people use their computers to read and see the news on the Internet. We get to know about world events much faster and also increase our knowledge about many things by using computers for research.

Read the text about telephones. Explain that not so long ago, making calls to another city within Pakistan and to countries abroad was a real hassle—one had to call the telephone exchange and give them the number to be called and name the person one wanted to speak to. The operator would ask how long the call would be and even for three minutes (the minimum time allowed) it used to cost quite a lot. Compare that to the ease with which we simply pick up the telephone and call wherever in the world we want to!

This has been made possible by technology and the use of communication satellites which connect people across thousands of miles in just a few seconds. The cell phone is an example of this technology, and while there are very simple cell phones with limited features, there are BlackBerry phones, phones that have built-in cameras and audio-video recorders, etc. Day by day, these gadgets are becoming more advanced. Tell the students when the cell phones were first introduced they were as big as the regular telephone set. Technological advancements has made it fit into our palms and perform functions quite similar to the computers.

It is possible that students are now more well-versed in using cell phones than the landline appliances. Ask students what purposes cell phones can be used for. It will be evident that they are used for sending instant messages, playing games or listening to songs. But they are also very useful in emergencies and also to record an event.

**Conclusion:** 10 minutes

Recap the day's lesson. Discuss the first question on page 45 and note the important points.

Work Page Exercise A can be done in class, followed by the first activity of 'Things to do', to be done as pair work. They can then share their list with the class. The teacher can compile the results on the board and see which the most popular TV programmes are.

**Homework:** Question 1 on page 45 to be answered in the notebooks for homework.

Ask the students to bring some stamps to the next class for a class display.

## **Lesson plan 28: Communications**

**Duration:** 40 minutes

**Objective:** To know about the role of radio, television and newspapers in communication; to reinforce learning through activity

**Outcome:** Students will be able to

- discuss the important means of communications
- create a class display using a variety of postal stamps
- work on creating stamp designs for special events

**Resources:** Textbook; Worksheet 11 from the Teaching Guide Appendix; chart paper, glue, markers, scissors, coloured crayons; a modern radio, pictures of old fashioned radios and transistors; newspapers

**Introduction and explanation:** 20 minutes

Explain that the remaining text will be read and explained, to be followed by activities that they will enjoy.

Proceed with the reading of the text on page 44, onwards from the fifth paragraph about computers. Students will be well aware of the various types of computers now in use—laptops, i-Pads, palmtops, etc. Explain that along with the advance in designing easily portable and highly effective computers is the advance in providing connections. Wireless facilities are very common now, i.e. computers do not need to be ‘plugged’ into a cable network.

Ask the students if they listen to the radio, and which channels they like listening to. Move on to the text on radios and read this with reference to the pictures of old-fashioned radios which were almost cabinet-sized and had to be tuned to various stations; radio broadcasts were also timed and not available around the clock. These were followed in the late 1950s by transistor radios which worked on battery cells and were considered a great advance in technology! They were portable and with time, they became pocket-sized. Although TV is a common medium of information and entertainment, many people, especially in rural areas where TV signals are not clear, prefer listening to the radio for news and entertainment. Regional languages are also used for radio programmes and news broadcasts. Many of us listen to the FM channels on our car radios. Ask the children to find out about past popular radio programmes from their parents/grandparents.

A very common sight is to see people listening intently to the commentary on the radio when an important cricket match is being played: they will be following the game whether they are on the road, walking, driving or doing something else.

Talk about television which is the fastest mode of getting news from all over the world. Besides news, television provides us information about many topics and subjects, sports follow-up from across the world, interesting facts and ideas are discussed and, of course, there is entertainment and recreation for all ages. In Pakistan we have many TV channels which telecast programmes and news in Urdu, English, and regional languages; besides Pakistani channels, we have access to many foreign entertainment, information and news channels too. Remind the students that television channels broadcast programmes for every age group and it is very important that children should watch programmes that are suitable for their age.

Next, show the class some newspapers. Ask the students how many of them get newspapers in their homes and how many read them. Ask them to name some of the newspapers published in their city/town, and list the names on the board for all to see. Read out some interesting news from the paper and encourage the students to start reading the newspaper themselves. The children’s section is a good start for students of this age.

**Activities:** 20 minutes

### **Stamp display**

Divide the class into three groups, and provide each group with a chart paper, glue stick, colours, and markers. Ask each group to pool their collected stamps and paste them on the chart paper for a class display. Encourage and help students to write the name of the country and the year under each stamp. Let the students decorate their charts with colours and makers. In addition, each group can talk about the stamps they chose for making the display.

## Designing a stamp

Show the class some special stamps designed to commemorate a special event or a person in a country, such as the Olympics held in a particular country or the coronation of a king, etc.

Ask the students to design a stamp to mark the school's anniversary or for a national day like Independence Day, 14 August, or Pakistan Day, 23 March.

The students will need time to complete this, so let them discuss their ideas and make sketches, etc. Explain that the drawing need not be stamp-sized! It can be large, such as on half a page. The task can be completed for homework and the results displayed in the next class.

**Homework:** Complete the stamp design activity for the next class.

Work Page Exercise B to be completed for homework.

Read a story or informative article from the children's section of the newspaper.

Note: Worksheet 11 can be used for assessment.

## Lesson 12 The government

### Lesson plan 29: The government

**Duration:** 40 minutes

**Objective:** To explain in simple terms how a government functions

**Outcome:** Students will be able to

- understand why countries need governments
- identify the kind of government in their own country
- know how a government functions: its role and responsibility

**Resources:** Textbook; Teaching Guide for explanation; newspapers

**Introduction:** 10 minutes

Greet the students. Write the term 'government' on the board and ask the class what they understand by this term. List their responses on the board, but at this stage do not mark any of them as right or wrong. When the list is exhausted, tell the students today we will learn what a government is; once they have read the entire lesson from the textbook, return to the list and corroborate it with the lesson's content.

Introduce the topic by talking about how a home is managed—by the parents; how a school is managed—by the principal and staff; a company is managed by its owner and directors. Explain that on a much bigger scale, a country is managed by its leaders and people below them who are given different responsibilities.

Identify some forms of government around the world and their leaders: parliamentary government whose leader is the elected prime minister, as in the UK; presidential government whose leader is the elected president, as in the USA; military government whose leader is the army/armed forces' chief, as in Myanmar. Tell the students that in most countries of the world the governments are parliamentary and/or presidential, while military governments are rare. Even where there are monarchies as in the UK, and in Monaco or Spain, where the rule of the country passes down from the king or queen to the crown prince or princess, the government is led mainly by the prime minister and his/her cabinet.



**Explanation:** 20 minutes

Read the text and explain why it is necessary to elect and appoint the elected leaders to run the government. Pakistan was created in 1947—in August 2012 it will be 65 years old! (There's no need to go into the details or history of the governments as the focus is on good governance and how it can be achieved.) Pakistan is a country with a large population and it needs a strong government to solve its problems and lead it forward.

Explain the concept of elections. It is not possible for every person to run the government that is why elections are held. Give the examples of the classroom. There are many teachers in the school but only one teacher is assigned to teach one class at a time. Ask students what would happen if all the teachers start teaching the same class together—it will result in confusion, not learning. Similarly, the responsibilities of each person in the school are clearly laid out and the final authority is with the principal. In the same way, in a government the authority rests with the president, and the prime minister assigns the different responsibilities to his cabinet ministers according to their skills. Explain that for a democracy to run efficiently elections are to be held after a regular interval of time, such as every four or five years as specified in the country's constitution. The candidates represent different political parties and the party that gets the most votes forms the government. The textbook explains in simple terms how elections take place. Electing the school's headboy/girl and prefects can be a good example as well as introduction to the process. Ask the students if they have seen an election campaign or polling booths.

Explain the functions of the national and the provincial government and assemblies, and talk about their roles in running the country smoothly. Tell the students that the provincial governments are responsible to the national or federal government. Ask the class to name the president and prime minister of Pakistan, and the governors and chief ministers of the provinces. If they do not know ask them to find out and bring their pictures in the next class. Show the students a newspaper with the pictures of some of the government officials such as prime minister or the president.

**Conclusion:** 10 minutes

Provide a recap of the lesson by going through all the topics discussed in the lesson so far. Ask questions to make sure that students have understood the content.

**Homework:** The first activity of 'Things to do' is to be done for homework.

Watch the national news on a TV channel; note who or what the main focus of the news was.

**Lesson plan 30: The government**

**Duration:** 40 minutes

**Objective:** To further inform students about the role and responsibility of the government

**Outcome:** Students will be able to

- discuss the role and responsibilities of the government
- list some of the political parties functioning in Pakistan

**Resources:** Textbook; newspapers; pictures of national and provincial assemblies (in session); Teaching Guide for explanation and Worksheet 12 from the Appendix

**Introduction:** 10 minutes

Greet the students and enquire about the homework. Ask them to read out the names of the president, prime minister, the provincial chief minister, the governor, the federal and provincial education ministers. Let the students share the pictures of the above personalities as well.

The students can later prepare for class display a poster of the important personalities who are currently a part of the government of Pakistan.

**Explanation:** 20 minutes

Recap the main points covered in this lesson so far, such as why a government is needed, how it comes into power, what it is supposed to do for the people and the country, and who the main figures in authority are.

Read the text on page 48. Explain that the government has many difficult tasks to do. The president, prime minister, governors, chief ministers and the national and provincial cabinets (ministers for various departments) are responsible for law and order in the country and the security and safety of the citizens. They also have to plan and ensure that the country is run effectively and that there are no shortages or problems. No law is passed or major decision about the country is taken without it being discussed in the National Assembly. Show the class some pictures of national and the provincial assemblies in session. Talk about the responsibilities of a government. Make a list on the board for the class to see. Students should know that running a country needs a lot of hard work, patience, dedication, and honesty. We need to give a government its due time to show the progress.

Refer to page 25 of the Teaching Guide, second suggested activity, for further information.

Talk about political parties: ask the students to name some parties in the country along with their leaders. Encourage the students to read the newspaper headlines and to watch the national news on TV to know more about this topic. Explain that elections are held in different countries according to their constitution and a given time frame. In Pakistan, elections are held after five years. In the USA, elections are held every four years. If people like one particular government and its working, they re-elect or vote for the same leaders once again, for another term.

Refer to the pictures of two popular political leaders of Pakistan on pages 48 and 49, and ask the students to identify them and their parties.

Explain what is meant by a constitution: it is a set of laws and rules made for the entire country, but by common consent through the elected representatives of the people in the National Assembly. The constitution cannot be changed unless the issue is discussed and everyone in the assemblies agrees to the change. The constitution protects the rights of the people as well as democracy in a country.

Discuss the questions on page 49; note the important points. Students can later write the answers in their notebooks.

**Conclusion:** 10 minutes

Work Page exercises A and B are to be done in class.

**Homework:** Worksheet 12 from the Teaching Guide appendix is to be completed for homework.

## **Lesson plan 31: The government**

**Duration:** 40 minutes

**Objective:** To experience an election

**Outcome:** Students will be able to

- identify the process involved in elections
- experience the process of elections in their class

**Resources:** A shoe box covered with plain paper and marked as 'ballot box', 8 x 10cm pieces of blank paper to be used as ballot paper (enough for all students), an ink pad

**Activity:** 35 minutes

- Explain the process of elections to the students using the text in the lesson. Inform students today they will have a mock election in the class to choose a class monitor. Give students sometime to nominate at least three to four candidates for the post.
- The candidates then choose a symbol each for themselves. Write the candidates' names on the board and draw their symbols against their names. Tell the class about the symbols.
- Provide the candidates some time to prepare a brief speech. The speech should focus on how the candidate would help in improving the conditions of the classroom or benefit the students. Let the candidates deliver their speeches.
- Hold the elections. Ask the students to queue up in front of the ballot box. Each student is given a piece of paper on which s/he makes the symbol or writes the name of the preferred candidate. Ensure that there is no crowding and the process takes place in an orderly manner. When all students have voted, select two or three students, other than the candidates, to act as election committee and help compile the results.
- Announce the results to the class.

**Conclusion:** 5 minutes

Take feedback from the students and ask them to do a write up on their experience of participating in an election.

## Lesson 13 The law

### Lesson plan 32: The law

**Duration:** 40 minutes

**Objective:** To emphasize the importance and need for law in a country

**Outcome:** Students will be able to

- recognize the meaning of law
- understand the need for law in a country
- explain how breaking a law is treated

**Resources:** Textbook; Teaching Guide for explanation; pictures of judges and lawyers, and a court scene

**Introduction:** 10 minutes

Greet the students. Show them the pictures of a lawyer in his/her black coat; ask them who they think this person is. Possibly, you may get the correct answer. Write 'lawyer' on the board and enquire if they have seen a lawyer on the television or in a movie. Ask further questions about what work lawyers do and where they usually work. Students may know more than you expect because of their observation and exposure through media. Ask them what other words related to law come to their minds, and list the responses on the board, e.g. lawmaker, break the law, court of law, etc.

**Explanation:** 20 minutes

Read the text. Talk about the importance of having rules. Discuss the rules of the classroom: what are the rules to be followed in the classroom? The list would include: talking politely in the class, avoid running or pushing any one, raising one's hand for assistance or a query, keeping the classroom clean and tidy, etc. Similarly, talk about the rules for the playground.

Explain that every country has its rules or laws which are defined by the constitution, and are to be followed by the government and all citizens. Measures to deal with law breakers are also defined and apply equally to everyone, regardless of their status. Remind the class about their learning about the

constitution in the previous chapter. If there is no constitution or laws, there would be complete chaos and confusion, and the country would not progress nor would the people have security.

Explain that people who break the law commit an offence or a crime and are tried in court and punished accordingly. As an example, refer to the classroom rules and ask the students what punishment would apply if the rules were broken. For example, if a child bullies others or tends to hit others, he should be made to apologize to those whom s/he has hurt, and to promise the hurt party and his/her parents that such rowdiness will not be repeated. The embarrassment of having to apologize and being marked as naughty will be more than punishment for the offence.

Explain the difference between offences and crimes. If a driver is over-speeding on a road it is an offence. The punishment would include fining the motorist. However, if rash driving results in damage, injury, or death, then the culprit will be punished accordingly. Crimes are offences of a serious nature and include damage to someone's life or property such as robbery, fraud, injury or even death. The culprits would be arrested, tried in a court of law and the punishment would then be more severe.

Discuss the roles of the people who are given the responsibility of maintaining law and order in the city. Refer to the pictures of the traffic police and the police constable on page 51. Explain that though a criminal may be arrested, no person can be sentenced to a jail term unless his/her case is tried in a court of law.

Show the students a picture of a court scene and ask them to identify the people in the picture. It would include the judge, the two lawyers—one who defends the offender and the other who speaks for the law—the offender, witnesses, and the audience. Explain that cases are tried in upper or lower courts and sentences given, according to the level of the offence. Very serious cases go up to the provincial High Courts and/or to the Supreme Court.

Read the text to the end of page 51 and point out the pictures of the court buildings on page 52.

**Conclusion:** 10 minutes

Class work: Work Page Exercise A to be completed by the students. Most likely, the students would know the mentioned traffic signs; however, ask them to focus on the symbols on the signs to make a guess.

Recap the lesson by discussing Questions 1 to 3 on page 52.

**Homework:** The second activity of 'Things to do' is to be done for homework. Ask the children to write their names on their posters.

## **Lesson plan 33: The law**

**Duration:** 40 minutes

**Objective:** To explain the process of law

**Outcome:** Students will be able to

- know who decides how law breakers are to be dealt with
- understand the process of trial in a court of law

**Resources:** Textbook; Worksheet 13 from the Teaching Guide Appendix

**Introduction:** 5 minutes

Collect the posters made by children and put them up for display. Let them say a few sentences about their posters and the warning signs. Inform them that they can make more warning signs, such as for wearing seat belts at all times while driving and for pedestrians to use the zebra crossing for crossing a road.

**Explanation:** 20 minutes

Read the text on page 52 which outlines the process in a court of law to punish a law breaker.

Remind the students according to the constitution of Pakistan, every Pakistani has the right to be tried in a court of law before being sent to jail. This means that no one has the authority to put anyone in jail without a fair trial.

Explain the procedure of a court session with the help of the text. Ask the students to recall a court scene they may have seen on TV or in a film. Encourage them to share something about the process they may have observed. Write the terms 'prosecutor' and 'defence' on the board and explain that as every person has a right to fair trial, they also have a defence lawyer. Talk about the role of witnesses in a trial. It is very important that witnesses report exactly what they have seen and/or heard. All witnesses have to take an oath that whatever they will say in the court for or against a person will be based only on the truth.

Explain the hierarchy of courts in Pakistan. Sometimes when a person is not satisfied with the decision of the session (lower) court s/he may appeal to the high court for a new decision, and if dissatisfied with the ruling of the high court, the person may appeal to the highest court in the country which is the Supreme Court. The decision taken by the Supreme Court is final.

Ask the students to note down all the words in bold print to make a glossary.

Class work: Work Page Exercise B is to be completed by students with the help of a dictionary as well as the text in the book. Move around the class and help those who need assistance with the dictionary.

**Conclusion:** 10 minutes

Questions 4 and 5 at the end of the lesson should be discussed to assess students' understanding of the topic as well as provide an overview of the lesson.

**Homework:** Questions 1 and 5 from page 52 are to be done in the notebooks for homework, along with Worksheet 13.

**Lesson plan 34: The law**

**Duration:** 40 minutes

**Objective:** To reinforce learning through role play

**Outcome:** Students will be able to

- role play a court scene
- observe and understand the court procedure

**Resources:** Teaching Guide for assistance and planning; classroom and students; situation, roles, and dialogues prepared for the players

**Preparation:** Choose a situation on which the role play is going to be based. For instance, a student has broken a window pane in the class, or has broken or taken away a stationery item of his/her class fellow

**Activity:** 40 minutes

- Introduce the situation of the role play to the class.
- Select the players: the offender, the two lawyers, the judge, and two witnesses. Give them make-believe names. The rest of the class will be the audience of the trial.
- Describe the situation to the students and tell them what they are expected to do.
- Give them the dialogues they are expected to deliver. (At this stage it is better to provide students with a written script; with practice, they will later be able to write their own scripts.) Allow them some time to go through the script and understand their role.

- Start the role play. Observe and supervise audience response to the role play.
- Once the role play is over, thank the students.
- Have questions ready for the students about the role play. It is very important to engage the class in post role play discussion to clarify any ambiguities they may have in their minds.
- Appreciate the students for their efforts.
- Wind up the session by emphasizing on the importance of always following the rules and laws and reminding them of the consequences if laws are broken.

## Lesson 14 People and work

### Lesson plan 35: People and work

**Duration:** 40 minutes

**Objective:** To impart information about a country's population and how it is monitored

**Outcome:** Students will be able to

- explain the term 'census'
- realize the need for a government to carry out a census
- identify division of population into urban and rural, and what this means for the country

**Resources:** Textbook, atlas; Teaching Guide for explanation

**Introduction:** 10 minutes

Greet students. Ask them to recall from the lesson learnt Class 3 about the kind of work people do in villages and in cities/towns. Make two columns with the headings 'city/urban' for one column and 'village/rural' for the other. Ask the students to suggest the occupations of people in these areas. Note their feedback accordingly for later reference while reading the lesson.

**Explanation:** 20 minutes

Explain the meaning and concept of census to the class. It is the process of systematically obtaining and compiling information about the population of an area such as a country, its provinces, cities, towns and villages, in order to know the number of people and families, their ages, occupations, economic level etc. A census is supposed to be held regularly after every 10 or 12 years. The government appoints teams to go around the country collecting data about the population; all this information is then compiled and recorded systematically. It helps the government to assess the current status, to determine future needs regarding food, jobs, education, healthcare, etc. and to plan accordingly for the future.

As an example, a mini-census can be held for the school or for a particular class and its sections to know more details about the population of that class. For example, the students in Class 4 are the population of this class. What do they think of having a census of their own class? See the first suggested activity (page 28) in the Teaching Guide. In addition, the teacher can make a pie chart later to show the class some of the data gathered through the census.

Explain that getting information about the ages of the population of a country is the basic requirement to plan facilities for the future. For example, if the number of infants is known it would guide the government about the need for opening more schools in the near future. Knowing the number of young people in the country guides the government for creating facilities to provide them with vocational training and new jobs; knowing the number of old people means providing them with healthcare and support in their old age.

All this data helps the government to plan new opportunities and facilities for the population of the country.

Discuss the questions given on page 54 with the students. Let them ponder on the answers and then share their ideas with the class.

Discuss the terms 'rural' and 'urban'. Ask why more Pakistanis live in the villages and countryside as compared to the towns and cities. Inform the students that some years ago the percentages were different: up to 80% were living in the countryside and about 20% in the cities.

Read the text about Work, on page 55. Explain that the majority of Pakistan's population still lives in rural areas because Pakistan is an agricultural country. But the ratio of rural/urban population figures is changing because people move to the cities to find work in the factories, offices, and homes, and also in construction as labourers. Ask students to recall their learning from the previous chapters about jobs. (Refer to the 4<sup>th</sup>, 5<sup>th</sup>, and 6<sup>th</sup> paragraphs on page 28 of the Teaching Guide to explain this topic.)

Now go back to the list of occupations on the board: to what extent are their responses similar to those suggested in the textbook? Write the term 'dignity of labour' on the board and explain that it means no work is inferior or superior to another. No matter what work one does, it has its own value and dignity and must be respected at all times.

**Conclusion: 10 minutes**

Discuss Questions 1, 2, and 3 on page 56. The third question is particularly important and may need explanation. Education and training equip a country's population with skills that help them to improve their lives by getting better paid jobs. Encourage the students to think about the answers and share them with the class.

Class work: Work Page Exercise A is to be done in class.

**Homework:** What would you like to become when you grow up? Write few sentences about it in your notebook, for homework.

## **Lesson plan 36: People and work**

**Duration:** 40 minutes

**Objective:** To identify services and professions

**Outcome:** Students will be able to

- talk about the work done by people in their professions
- identify the services government provides to the people

**Resources:** Textbook, Teaching Guide for explanation and Worksheet 14

**Introduction:** 10 minutes

Greet the students, and ask them about the homework. Invite them to share their ideas and plans for future professions with the class. Encourage them to speak up and appreciate their ideas.

**Explanation:** 20 minutes

Begin with a quick recap of the text on pages 54 and 55; identify professions that need higher education and specialized skills and training as well as those that require skill alone, such as a carpenter, mason, tailor, etc. Explain that between highly educated professionals and skilled people is the group of technicians who are educated as well as trained in their fields, such as computer operators, laboratory assistants, nurses, etc. Tell the class that apart from all the people mentioned here, there are many people who do not have steady jobs, because they do not have the required skills or live in places where they have no opportunities. They do work that requires physical ability and stamina, such as being farmhands, labourers and construction workers; some come to the towns and cities to find work.



Ask the students to talk about each of the professions and the work involved. Emphasize that regardless of its nature, every job has dignity and the person doing it should be respected. There are many people who do work that most of us would not like or are unable to do, but it has to be done, such as keeping the streets and neighbourhood clean. So we must be thankful to them, even if they are being paid to do it.

Read the text on services. Ask the students to recall what services a government provides its citizens. Let them come up with some ideas, and then add your own input.

Trigger their thinking by asking what else the government does for its citizens which they cannot do on their own on a large scale. List the responses on the board. Talk about the special departments or institutions set up to aid people. The government also arranges for loans to farmers to buy seed, fertilizers, equipment, and machinery to help grow better crops.

Government-run hospitals provide healthcare and treatment at minimal cost; most districts have district hospitals. One of the most important tasks for the government is to provide primary and secondary education and schools in all parts of the country.

Inform the students that besides the government, private organizations also provide services for the people; however, the facilities and services they provide are usually expensive. Ask students to name some such service providers. The list would include private hospitals, schools, courier services, etc.

**Conclusion:** 10 minutes

Class work: Work Page Exercise B is to be completed by students individually.

Discuss the last two questions on page 56. For the second activity of 'Things to do', ask the students to find out and bring information for the next class.

**Homework:** Questions 4 and 5 on page 56 may be done in the notebooks for homework, or alternately Worksheet 14 may be done for homework.

## Unit 3 Our history

### Lesson 15 Our past

#### Lesson plan 37: Our past

**Duration:** 40 minutes

**Objective:** To create awareness and understanding about the past and history

**Outcome:** Students will be able to

- understand the concept of BC/BCE and AD/CE
- recognize how archeology helps in informing us about our past
- explain how the Indus Valley Civilization flourished and their achievements

**Resources:** Textbook; enlarged world map for class display, pictures of sites and artefacts from Indus Valley Civilization; pictures of some of old maps of the world; Teaching Guide for explanation

**Introduction:** 10 minutes

Begin by informing the students that they will now learn more about the past of human beings and our world—knowledge of the past is called history. Engage the students' interest by asking why we should learn about the past and how can it help us today. Note their responses; explain that what our world is like today is the result of events and happenings in the past. Learning about the past helps us to understand how people lived, what they ate and how they obtained food, and how they advanced. How did they discover and invent the objects that we now commonly use? We can learn from the mistakes that people made as well as the good work they did in the past and can make our present better by using the learning.

Point to the world map displayed in the class and tell the students how maps are useful in history too, for learning about the past.

**Explanation:** 20 minutes

Refer to the world map with reference to the region that comprises the subcontinent. Explain that what we are today, what we do, what we eat and drink, and how we live are all shaped by the events that took place in all of this area in the past. This lesson/chapter introduces us to the history of our region thousands of years ago.

Revise the concept of BC/BCE and AD/CE. BC refers to all the years before the birth of Jesus Christ i.e. Hazrat Isa (AS). AD means 'Anno Domini' i.e. the year of our Lord, the years after Christ. Explain that now these terms have been replaced, internationally, with BCE—Before Common Era—for BC, and CE—Common Era—for AD. Ask the students how they would refer to the current year, e.g. 2012: 2012 CE. Also explain that the Islamic calendar begins with the event of the Holy Prophet's (SAW) migration—Hijrat—from Makka to Madina, hence it is also called the Hijri calendar.

Read the text. Point out that the history of this region goes back to nearly seven thousand years ago: Mehargarh in Balochistan is a historical site about 2500 years older than the Indus Valley Civilization which flourished around 2500 BCE (2500+2500 BCE+ 2012 CE = 7012 years!). On a map of Pakistan, point out the places such as Mohenjo Daro, Harappa, Mehargarh, Taxila, and Kot Diji. Stress the fact that Pakistan and the rest of the subcontinent are rich in history through the ages.

Explain that all civilizations in the past have started near a river or a fresh water source; ask the reason for this, and then explain that water is the most essential thing for life—we drink it, we use for cooking, washing, and for growing crops and for livestock, and many more things. Ask them to think what the fresh water source was for the Indus Valley Civilization—as the name implies, the answer would be River Indus. In other places in the world, there were similar civilizations, such as the Babylonian/Sumerian

civilizations near the rivers Tigris and Euphrates in Iraq, the Egyptian Civilization along River Nile, and the Chinese civilization along River Huang He in eastern China. Refer to the world map while talking about these places.

There were many settlements along River Indus on the plains of Punjab and Sindh; however, the ones that have been most explored are Mohenjo Daro in Sindh and Harappa in Punjab. Read the text further onwards, explaining how these sites were discovered and explored, and that archeologists continue to find more sites from the same era in the Indus plains in Punjab and Sindh. From the pottery and other metal items found, and from the ruins of buildings and their layout, we begin to understand how these people lived. Also draw their attention to the pottery items still used, such as the clay 'handis' and 'matkas'; the ancient toy carts are almost the same as animal-drawn carts today.

An important point to note is that the Indus Valley Civilization was not based on wars and violence as no weapons have been found in large quantities, nor do the seals have any war-like symbols. Their source of livelihood was agriculture, as shown by their location and the granaries to store grain, and trade in cotton as well as semi-precious beads, and metal objects and utensils.

**Note:** Make good use of the Teaching Guide which provides explanation as well as useful information and suggested activities.

An interesting fact about the discovery of these sites is that when the British began laying railway lines across the subcontinent, the workers in Punjab found even-sized bricks some feet underground and also used these in construction. Later, in the early 20<sup>th</sup> century, archaeologists Sir John Marshall and Mortimer Wheeler took up serious exploration and made amazing discoveries. Tell the students that Sir John Marshall's Jeep still stands outside the Mohenjo Daro museum.

Show the students pictures of Mohenjo Daro easily available from the Internet. These should include the Great Bath, the granary, the stupa, roads, and the drainage system and artefacts as well such as jewellery, pottery, seals, and figurines. The people of Mohenjo Daro and Harappa also traded with other places as remains of the objects from the Indus Valley Civilization have been found in the Sumerian sites in Iraq, for example.

Point out the mysteries behind this civilization: first, the writing on the seals which has not yet been deciphered. The people of this region did use some form of writing but the symbols have not yet been understood. Secondly, why did this civilization die out? There are many possibilities: perhaps the river changed its course, the farms and fields dried up, and the people moved away in search of better water sources; or perhaps they were driven out by other settlers and invaders who arrived in this region. Make this an exciting question for the children to solve!

**Conclusion:** 5 minutes

Discuss Questions 1 to 3 on page 60 with the students to assess their comprehension. Note their feedback and relevant points on the board.

**Homework:** To complete the answers for Questions 1, 2, and 3 in their notebooks for homework.

Ask the class to collect pictures of object and sites from Mohenjo Daro and Harappa, and any other sites from this period, for a class display.

## Lesson plan 38: Our past

**Duration:** 40 minutes

**Objective:** To trace the arrival of the Aryans and other settlers/invaders, and their impact on the subcontinent

**Outcome:** Students will be able to

- identify the main invasions and developments that took place later in the subcontinent
- identify the key learning that took place in subcontinent due to the rules by different empires and dynasties

**Resources:** Textbook, Teaching Guide for explanation; if possible, pictures of ancient Aryans, and later empires

**Introduction:** 5 minutes

Begin with a quick recap of the previous lesson. Question the students to assess their understanding of how and where civilizations developed. and the main points about the Indus Valley Civilization.

**Explanation:** 25 minutes

Read the text on Aryans. With the help of the world map or a map of Asia, explain who the Aryans were and where they came from. Their homeland was Central Asia, a vast region with acres of grassland. What would the Aryans' occupation be? They raised livestock, i.e. mainly sheep, goats, and horses. The Aryans were excellent horsemen as well as warriors. They moved about in search of fertile land and vegetation for their animals which were their source of wealth. This resulted in invasions taking place in their neighbouring lands. The Aryans were the first to enter the subcontinent from the north-west; through the natural passes, they crossed the high mountain ranges which were like a protective wall across the north of the subcontinent. Point out the passes along the north-west from where they entered this land.

Talk about the effects of people coming in from other lands: they speak different languages, eat different food as well as dress differently. How do they affect the local culture? The local culture absorbs many of the new things brought in by the newcomers and even the religion is affected this way. Explain that this is how, over centuries, new civilizations develop. Remind them of their learning about history, the different ages—Stone, Iron, Bronze—that they studied in previous classes. Show the class some pictures of the Aryans and ask them to research this from sources in the school library.

The Aryans brought with them a new language, Sanskrit, and their religion, Hinduism; they had a lively culture and celebrated nature's blessings with festivals, music, and dance. They drove the local people further east and south as they settled in the fertile regions along the Indus and its tributaries, and the Ganga and Jamuna rivers in India.

Read the text further on the other empires that followed the Aryans. Explain that no empire or kingdom lasts forever—they grow and become strong, but under weak or bad leaders, the kingdom begins to fall apart. Mark the entry of the other invaders from the north-west—the Persians from Iran, which was called Persia in ancient times; then came the Greeks, from further west, in Europe, led by Alexander. Talk about Alexander, the Great: why has he been given this title? The students can research on it.

The Mauryans came from the east of the subcontinent, and the Kushans came from the north—once again from Central Asia. Point out the lands where the Persians, Greeks, Mauryans, and Kushans originally lived. The Greeks also left behind many traces of their culture, art, and architecture. The Greeks and Persians also influenced the way of governing a country—they did not stay in the invaded land but left their governors behind to rule. Explain that Buddhism had grown and spread across the north of the subcontinent from east to west before the arrival of the Greeks, and continued till later. Talk about the Mauryans and the great battle of Kalinga, and how the destruction changed Asoka who

turned to Buddhism. Tell the students about the Kushans whose best-known ruler was Kanishka, and discuss the later dynasties. Explain the term *dynasty*—it is the rule of a kingdom passed on from father to son over a few generations, e.g. the Mughal dynasty which ruled the subcontinent for about twelve generations from 1526 to 1857.

Read the text to the end of the first paragraph on page 60. Briefly discuss the Huns, a fierce and cruel tribe from Central Asia, who invaded kingdoms and territories and senselessly killed and destroyed everyone and everything in their way.

Class work: Work Page Exercise A is to be done in pairs as class work.

**Conclusion:** 10 minutes

Role-play: discuss the third activity of 'Things to do'. Briefly recap the Indus Valley Civilization—a peaceful people whose occupations were agriculture and trade. We know this as no tools of destruction or any weapons were found from the remains of Mohenjo Daro or Harappa. Ask the students to imagine they were a part of this civilization and to write a paragraph of five or six lines as to what his/her feelings might have been after hearing about the coming of Aryans with their horses, chariots, weapons, and a new way of life. Students can begin to write the account in their notebooks and complete it for homework. The accounts can be read out in the next class.

Note: A class display can be made from pictures of land sites and artefacts from Mohenjo Daro, collected by the students. A separate period will be required to complete this task.

**Homework:** Students to complete role-play task discussed above, and Work Page Exercise B is to be done for homework.

Ask the students to find out from their parents the dates of their admission into nursery and then primary school, as well as any significant event in their lives such as winning a prize in school, or a holiday away from home, etc. for a timeline exercise in the next class.

## Lesson plan 39: Our past

**Duration:** 40 minutes

**Objective:** To recognize the impact of changing cultures and influence of various rulers; to list events in a timeline

**Outcome:** Students will be able to

- appreciate the changes that occur over a long period of time and the causes for this
- list the dynasties and empire in order of their rule
- understand how a timeline is made and make timelines of their own lives

**Resources:** Textbook; Worksheet 15 from the Teaching Guide Appendix

**Introduction:** 5 minutes

Briefly introduce the topics and activities for this lesson: How we learn more about the past—who or what the sources are; what developments in science, art, and other subjects took place over the centuries from the coming of the Aryans to the arrival of Mohammad bin Qasim; the religions in the subcontinent; and the concept of timelines. A timeline is used to show the events chronologically i.e. according to the dates when they took place.

**Explanation:** 15 minutes

Read the text on page 60 from the second paragraph to the end. Explain that we learn about this ancient period through the artefacts, i.e. the objects from that time, from the accounts left behind by appointed writers or 'chroniclers' as they were called, and by travellers like the Chinese pilgrims who came to India to learn more about Buddhism, or those who came for trade or just to explore.

Draw the class' attention to the fact that even thousands of years ago, the ancient rulers took education seriously and set up large and properly planned universities to which scholars came from far and wide to study. Schools close to Taxila can take their students to see the remains of the university. Talk about the contribution of ancient scholars to mathematics (Aryabhata) and to astronomy, medicine, sciences, architecture, and art.

**Religions:** The Aryans brought with them their religion, Hinduism and their sacred books, the Vedas; gradually Hinduism spread all over India. One of the aspects of the Aryan religion, of separating the people according to their occupations, became the caste system of Hinduism in India. This was a cruel and unfair system, and Buddha preached a religion in which people were not judged by their caste but by their thoughts and actions; his religion became very popular and also had the support of powerful kings like Asoka; Buddhism spread across much of India and beyond too, to Sri Lanka, China, East and South-east Asia. But later, under the Guptas, the Hindu religion was revived and became widespread. Jainism is another off-shoot of Hinduism and is still followed by some people in India.

Islam was brought to India mainly with the arrival of Mohammad bin Qasim in 712 CE.

**Timeline activity:** 15 minutes

In advance, make a timeline of the subcontinent's history from the Indus Valley Civilization to the arrival of the Muslim Arabs in Sindh. For example:

2500 BCE—Indus Valley Civilization

1500 BCE—the coming of the Aryans

400 BCE—the Persian invasion

325 BCE—Alexander invades the subcontinent

XXX BCE—the Mauryan invasion, the Battle of Kalinga (321, 261 BCE)

XXX BCE—the Parthians (1<sup>st</sup> century BCE – 1<sup>st</sup> century CE)

XXX BCE—the Kushans invade the subcontinent (1<sup>st</sup> century CE)

XXX BCE—the Gupta dynasty (320–550 CE)

XXX BCE—the Hun invasion (5<sup>th</sup> century CE)

Find out the dates and mark the later empires and invasions to give a clear idea of the timeline for the subcontinent before the spread of Islam. Put this up on the board,

**Students' timelines:** begin by drawing your own timeline as an example for the students. Start with your date of birth, and mark all following important milestones such as when you started walking, talking, school admission, birth of a sibling, any important event in the family, when you completed school, started going to college, graduated, started teaching, etc. to date.

Ask the students to make their own timeline in a similar way in their notebooks. Help them as they work on their timelines. Invite some of them to come forward and share their timeline with the class. Appreciate the students' efforts.

**Conclusion:** 5 minutes

Distribute copies of Worksheet 15 for homework.

## Lesson 16 Muslim rule in the subcontinent

### Lesson plan 40: Muslim rule in the subcontinent

**Duration:** 40 minutes

**Objective:** To impart knowledge about Muslims' arrival and its impact on the subcontinent

**Outcome:** Students will be able to

- understand the beginning of Muslims' interaction with the subcontinent
- recognize the reason for Mohammad bin Qasim's entry into Sindh
- identify the impact of Islam in this region
- mark on a timeline the Muslim dynasties that ruled in the subcontinent

**Resources:** Textbook; world map or enlarged map of Asia; Teaching Guide for explanation and reference

**Introduction:** 5 minutes

Greet the students and talk to them about the previous lesson about the rulers, dynasties and empires in subcontinent before the coming of Islam. This lesson is about how Islam was introduced to the region, how and why it spread, and the Muslim empires that followed.

**Explanation:** 25 minutes

This chapter is about the beginning of Muslim rule and the introduction of Islam to this region. Read the text; the first paragraph gives a brief background to the Holy Prophet's (SAW) birth, the revelation of Islam, the Hijrat from Makka to Madina and his demise in 632 CE, and the spread of Islam in the following years.

Explain very briefly that the four Khulafa-e-Rashideen (RA), who followed the Prophet Muhammad (SAW), worked hard to protect the new Islamic state in Madina, and the faith of Islam itself. In Hazrat Umar's (RA) time, Islam spread beyond the Arabian Peninsula to Iraq and Iran in the north, up to China in the east, and westwards to Egypt. The pre-Islamic Arabs had been trading with south Indian coastal towns and the Spice Islands of South-east Asia, which continued after the advent of Islam; thus there were some Muslims in this region. Refer to these places on a map of Asia to help the class recognize the extent of the spread of Islam.

The second paragraph describes how Mohammad bin Qasim set up the example of a good Muslim ruler. As a result, people willingly converted to Islam. Tell the students how capable he was despite being so young—he was only seventeen! He was the governor of a rich province in Persia when he was asked to go to Debal (believed to be Bhanbore) to sort out the problems. He conquered Sindh and lower Punjab and this territory was added to the Arab Empire.

*Do you know?* The first complete translation of the Quran into another language was done into Sindhi, in 884 CE in Alwar, by the order of Abdullah bin Umar bin Abdul Aziz on the request of the Hindu raja, Mehruk.

Refer to the world map to show where the Arabs had interaction with the subcontinent even before Islam was revealed, and the areas of Asia and North Africa where it spread over the years. Trace Mohammad bin Qasim's path to the subcontinent—he came over land from the west, from Shiraz, with his troops.

Read the third paragraph and explain that the Arabs took many useful ideas from the lands that they conquered. From India, they took mathematics and from China they took the art of making paper and printing—ask the students why these were important contributions to the world, then and now. The 10<sup>th</sup> and 11<sup>th</sup> centuries CE mark the progress made by Muslim scientists, mathematicians, astronomers, and chemists. Draw the students' attention to the table showing Roman, Arabic and modern numerals: ask them if they would like to study maths using Roman numerals for their calculations!



Read further about the invasions from the north-west—present-day Afghanistan—which was then made up of several smaller states. Many Muslim rulers from this region had heard of the riches of the subcontinent. Among the first to invade this region was Mahmud of Ghazni who attacked 17 times but did not stay back in the subcontinent. He is remembered for destroying the famous and rich temple of Somnath near the modern Indian state of Gujarat.

Use the map of Asia to explain how the Delhi Sultanate began. After Mahmud, another Afghan ruler Mohammad, from the state of Ghor, invaded the subcontinent in 1192 and made Delhi his capital. Note the extent of the land he conquered from the north-west to the north-east of the subcontinent. Ghor returned to Afghanistan and his capable general, Qutbuddin Aibak, who was appointed as governor, became the ruler in 1206 and set up the Delhi Sultanate. He was followed by Iltutmish who was succeeded by his brilliant daughter Razia Sultana who was a better ruler than her brothers. But the nobles did not like being ruled by a woman and plotted to remove her.

This was the time when another very powerful ruler emerged in Mongolia; he was Changez Khan, the leader of the Mongol tribe. The Mongols were a nomadic warrior race who succeeded in building up a huge empire by invading and conquering neighbouring countries. To keep them out, the Chinese rulers built a wide and strong wall, thousands of kilometres long, around their kingdom; this is the Great Wall of China which can be seen even from an aeroplane high up in the sky.

Ask the students why Balban is considered the strongest ruler of the Delhi Sultanate—it was because he took timely measures to protect his kingdom from the Mongols who tried to invade the region, by building strong and well-manned forts around the western and north-western borders of the Sultanate. Balban ruled very well for 41 years. After him came the Khalji kings, the most famous of whom was Alauddin Khalji.

Explain that just as all rulers of a country are not always brilliant, the case was the same in the past—some were weak rulers who could not control their nobles and princes, while some were brilliant generals and competent rulers who did many good things for their people. The Tughlaqs followed next; their king Mohammad bin Tughlaq was quite advanced in his ideas but he was also impractical. He spent a huge amount of money building a new capital at Daulatabad, but it had to be abandoned because it had no water sources. Ask the students what Mohammad bin Tughlaq should have done. His reign is described by the world-famous Moroccan traveller, Ibn Batuta, who worked for several years in the Tughlaq court as the chief Qazi. The invasion of north India by the Mongol ruler Taimur in 1398 marks the end of the Tughlaq Empire: Delhi was destroyed. The Sayyids were the next rulers and then came the Lodhis whose rule came to an end in 1526 when they were defeated by Babur, the ruler of Farghana in Afghanistan.

Note the dates of the various dynasties on the board, as you teach the lesson; keep these dates handy for the next lesson.

**Conclusion:** 10 minutes

Recap the lesson by discussing Questions 1 to 4 on page 65.

Class work: Work Page exercise B can be completed by the students in class.

**Homework:** Questions 1, 2, and 4 are to be done in the notebooks for homework.

## Lesson plan 41: Muslim rule in the subcontinent

**Duration:** 40 minutes

**Objective:** To inform the class how the Mughal Empire came into being

**Outcome:** Students will be able to

- understand the creation of the Mughal Empire and its impact on the subcontinent
- know how the people of the region benefitted from Mughal rule

**Resources:** Textbook; Teaching Guide for explanation and Worksheet 16; pictures of famous buildings constructed by the Mughals

**Introduction:** 5 minutes

Collect the homework done by the class. Draw the students' attention to the portraits on page 64: ask who these persons are. They are the six main kings of the Mughal dynasty.

**Explanation:** 20 minutes

Read the text on the Mughals. As you proceed, add to the timeline begun in the previous lesson the years that mark the beginning and end of each Mughal emperor's reign.

Explain that the Mughals were the descendants of the Mongols, Chingiz Khan and Taimur, but unlike their ancestors they did not destroy the region they entered; rather it blossomed under their reign. Just as the Gupta rule was considered a Golden Era in the past, the Mughal era is known as one of the most glorious in South Asia's history. Tell the students that in higher classes they will learn about these periods of history in more detail.

Tell the class how Babur, who had an army of just 12,000 men, was able to defeat a much larger force at Panipat in 1526. Explain that the Mughals, especially Babur and Akbar, were very capable generals who planned their moves in battle. Each of the Mughal emperors discussed here had his strengths and skills. The students will be interested to know that Babur, Humayun, Jahangir, and Shah Jahan, kept an account of their activities, travels, observations, plans and dealings in the form of a diary, while family members and trusted nobles kept the account of the other emperors' reigns. These were translated into English in the 19<sup>th</sup> century and are still available.

The Mughals were famous for their beautifully built palaces, mosques and parks, as well as mausoleums. The Taj Mahal, built by Shah Jahan in Agra, India is a landmark world-famous for its beauty. Show the class pictures of the buildings constructed during the Mughal era; these forts with palaces in them, and mosques and parks are found both in India and Pakistan. Stress the importance of looking after and maintaining historical sites because these are our heritage. Ask the students if they have visited and seen any of the Mughal buildings in Pakistan, such as the Lahore Fort, Badshahi Masjid, Shalimar Gardens, Hiran Minar, Shah Jahan's mosque in Thatta, etc. If so, let the students talk about these places. The grandeur and beauty of these structures are timeless.

Let the students sequence the names of the rulers after Babur. Tell them that these names are actually the titles chosen by the kings themselves or given by the nobles; their real names were longer, such as Jalal-uddin Mohammad **Akbar** or Zaheer-uddin **Babur**.

Read the last paragraph on page 65 to complete the lesson. Explain how the Mughals looked after their empire and its people, and with good policies made it one of the richest and most cultured kingdoms of its time.

**Conclusion:** 15 minutes

Conclude by recapping the main points of the lesson. Discuss the last two questions ( 5 and 6) on page 65.

Class work: Work Page Exercise A can be done as pair work. Encourage the students to go back to the textbook to find the answers. Move around to see they are on the right track.

Answers to Questions 5 and 6 on page 65 can be begun in class, in the notebooks, and completed for homework.

Worksheet 16 may be used for assessment.

**Homework:** To collect the material required for the activity in 'Things to do.' Assign specific projects to students' groups and ask them to research and collect information as well as pictures.

## **Lesson plan 42: Muslim rule in the subcontinent**

**Duration:** 40 minutes

**Objective:** To enhance learning through activity and group work

**Outcome:** Students will be able to

- work in groups on assigned projects
- make a presentation on a selected aspect of Mughal architecture
- learn about Mughal art and architecture, and culture through research and preparation

**Resources:** Pictures collected by the students, chart papers, coloured crayons/pencils/markers, scissors, and glue sticks

Note: Considering the nature of the project, students may require more time in researching and compiling information and pictures, hence this lesson plan need not immediately follow Lesson 16, Muslim rule in the subcontinent. It can be planned as convenient.

**Activity:** 30 minutes

Inform the students that today they will make posters for class presentation as discussed in the previous or earlier lesson. This activity will be done in groups, already assigned one example each of Mughal architecture. For example, one group will work on the famous Mughal forts, another on the mosques built by them, another on the gardens, and another on the monuments.

Group the pictures accordingly and compile the information collected by the students to match the project given to them. Give a sheet of chart paper, scissors, glue stick and markers/crayons to each group for the poster. Guide the groups to make posters for their assigned topics, placing the pictures in the centre with the text around it, or else with pictures above and the text below. Ask the students to leave space on the top for the title, which they can write nicely with coloured markers. Space should be left below too to write the names of the group members. Encourage them to write the name of the fort/monument/garden/mosque, its location, who ordered it constructed, when it was begun and completed, etc.

Provide students freedom of space and let them manage their own groups. However, supervise and help to handle any confusions or ambiguities that students may face.

When the posters are completed, help put them up for display. Each group should come forward and present their posters to the class along with the answers to the questions above regarding location, construction, and in whose reign this was accomplished.

**Conclusion:** 10 minutes

Ask the students what they liked best about the project assigned to them—what impressed them most.

Applaud them for their efforts in making the presentations. Display the charts in the classroom or corridor. Invite other sections and classes to view them.

## Unit 4 Culture and Society

### Lesson 17 Religion and languages

#### Lesson plan 43: Religion and languages

**Duration:** 40 minutes

**Objective:** To explain the concept of society and culture

**Outcome:** Students will be able to

- define the term 'culture'
- identify the different facets that comprise culture
- realize how religion affects our lives

**Resources:** Textbook; Teaching Guide for explanation; pictures of places of worship of different religions and religious symbols

**Introduction:** 10 minutes

Greet the students. Ask them about the different ways in which people greet each other—Salaam, Hello, Hi, Namaste, etc. Explain that these greetings form a part of a society's culture. We greet each other and our elders with Salaam Alaikum; it means wishing peace for the person we are greeting. 'Culture' is the way of life of a community or society—our language, clothes, food, festivals, history and tradition, literature, art and craft and, of course, religion. In many cases, religion influences the culture of a society.

Inform the class that having studied the history of our region, we will learn about how people live and spend their lives in this country.

**Explanation:** 25 minutes

Read the text. Explain that the culture of a place or region takes many years, even centuries, to develop. Therefore, when we refer to the culture and civilizations of the world we mean the many facets of the civilization, such as language, religion, customs, traditions, food, arts, music, dance, crafts and education. Culture keeps evolving and the process never stops. With time and age and the movement of people from one place to another, new things, new traditions and customs are introduced into the culture of a region.

Write the term 'culture' on the board and make a spider diagram around it with each facet linked to 'culture' by a line. Take up each facet individually and ask the students to say what they know about it. For example, a student can talk about the language he/she speaks or other languages s/he knows are spoken in Pakistan. Another student can talk about the food. Similarly, each child can share an idea or two about each facet of culture.

Stress that variety in culture makes it more interesting and enjoyable rather than having uniformity, i.e. everything being the same—same food, same dress, same language, same games—would it not be very boring?

Read the paragraph on religion. Religion is one of the most important aspects of a society's or community's culture. In fact, religion is above culture as it defines our beliefs and shapes the way we live, behave, dress and observe our traditions. Pakistan is an Islamic country where 96% of the population follows Islam, while the remaining 4% comprise Christians, Hindus, Parsees and Sikhs. As citizens of Pakistan, everyone is free to follow their faith. In fact, Islam teaches us to respect other faiths and to provide protection to those who belong to other faiths. This is the right of a human being and it is also protected by the Constitution of Pakistan.

Ask students where they go to offer prayers: the common answer would be ‘to a mosque.’ Ask students of other faiths if they go to their places of worship; if yes, then to name them. Ask students if they join their family in saying the prayers. If there are students of other beliefs, ask them to share their experiences in terms of prayers—how and when they offer prayers at home and at their places of worship.

Point out that all these actions are all part of our religious beliefs and reflect our faith in a particular religion.

Talk about the major principles that Muslims follow all over the world: Oneness of Allah (Tauhid), belief in the prophethood of Hazrat Mohammad (SAW) as the last Messenger of Allah, the practice of *namaz* (daily prayers) and *roza* (fasting in Ramazan), Haj—the annual pilgrimage to Makka in Zilhij—and giving *Zakat* are some of the beliefs that Muslims follow. The class will study these in greater detail in the Islamiyat classes.

Show the class pictures of temples and churches and ask them to identify these places of worship. It is likely students will easily recognize a church and a temple. Point these out on page 68 of the textbook; all of these places shown, and more such places of worship, are present in Pakistan. Almost every big town and city in Pakistan has one or more churches, and also cathedrals such as Trinity Church and St. Patrick’s Cathedral in Karachi and St. Anthony’s Church and Sacred Heart Cathedral in Lahore.

Tell the class that one of most revered Sikh shrines, Nankana Sahib, is near Lahore; it is the birthplace of Guru Nanak, the founder of Sikhism. Another Sikh shrine is near Hasan Abdal in Khyber Pakhtunkhwa. These places are visited by Sikh pilgrims every year. Similarly, one of the oldest Hindu temples in this region is Nani Mandir in Hinglaj, Balochistan.

Tell the students about the shelter provided by the Sikhs in their temples to displaced families during floods in the north, in 2010 and 2011.

Draw the students’ attention to the statue of Buddha at the foot of page 68; this is in Taxila—ask them if they remember reading about Taxila in a previous lesson. Also show them pictures of Buddhist temples and statues from Thailand, Sri Lanka, and Nepal.

Read the text about Zoroastrianism, the religion followed by the Parsees; this religion was preached by the prophet Zoroaster in ancient Persia in the sixth century BCE.

(Note: Persia was known as *Faris*, a very long time ago, and the language as well as the people were known as *Farsi*. Do you see the link?)

At one time, when the Persian Empire was vast and strong, this religion was widespread. Many of the Parsees left Persia many centuries ago and settled in the subcontinent, but now their number has declined. There are fewer Parsees in Pakistan as compared to India, but they are well-settled here and have contributed tremendously to the development of the country in every field.

**Conclusion:** 5 minutes

Questions at the end of the lesson, discussed orally, will provide a recap of the lesson.

**Homework:** Work Page Exercise B may be given for homework.

## Lesson plan 44: Religion and language

**Duration:** 40 minutes

**Objective:** To know about the role of language in the culture of a region or community

**Outcome:** Students will be able to

- recognize 'language' as a major part of culture
- identify the language and dialects spoken in Pakistan
- say a few sentences in a language other than the mother tongue

**Resources:** Textbook; Teaching Guide for explanation and Worksheet 17

**Introduction:** 10 minutes

Begin by greeting the class and talking about the homework task from the Work Page: ask how many of them could give the answer for # 5, the main language of Balochistan: it is called Brahui, and is one of the oldest languages in this region.

Read out the answers to this exercise from the Teaching Guide page 37, and let students exchange their books for peer checking.

**Explanation:** 20 minutes

Read the text on languages, with reference to the explanation in the Teaching Guide, page 36.

Explain that language is the medium of expression—the words we use, the way we speak and the way we write and what we write about are all part of our culture. Each language has folk tales, poetry and children's songs, etc. that are handed down through the generations. Ask the children if they know any poems, songs or stories in their mother tongues. Perhaps they can share a few lines of the poems or songs.

Ask the students to read one sentence each from the list given on page 69. Note that out of the seven sentences in different regional languages of Pakistan, only one may not be legible for the students—the Gujrati script. It is a good point to explain that learning a language that has a completely different script is difficult as one has to learn the new alphabet as well as the sounds, grammar, vocabulary, etc.

Explain the difference between a language and a dialect. A language has its own script but a dialect usually does not. Enquire if the students speak any other language besides Urdu and English. Encourage them to say a few words in their mother tongue. Invite a teacher or a staff member (who has a different mother tongue) to visit the class and share few sentences in his/her mother tongue with the class. This will amuse them as they will also try to speak the language.

Inform the students that knowing more than one language is a great asset/advantage. Learning languages is very beneficial for one to mix with people of other races and places.

Class work: Work Page Exercise A may be completed in class.

**Conclusion:** 10 minutes

Recap the lesson by going through the major points on culture: religions and languages. Students sing a national song together!

**Homework:** Worksheet 17 is to be done for homework.

## Lesson 18 The arts

### Lesson plan 45: The arts

**Duration:** 40 minutes

**Objective:** To know more about the different aspects of culture

**Outcome:** Students will be able to

- identify 'arts' as a major aspect of culture
- recognize festivals as an expression of joy and happiness
- list the different forms of dance performed in Pakistan
- realize that 'music' has been a part of this region's history for a very long time
- differentiate between various kinds of musical instruments

**Resources:** Textbook; videos of various folk dances performed in Pakistan; pictures of musical instruments used in Pakistan

**Introduction:** 15 minutes

Arrange the viewing of a video clip of various folk dances performed in different parts of Pakistan. After the video, ask the class some questions about it such as: Can you identify where these dances took place? Who were the people dancing? Did they use any props while dancing? Which dance did you like the most? Why?

Encourage feedback and note the responses.

**Explanation:** 20 minutes

Begin by telling the students that the term 'the arts' generally applies to art, dance, music, literature and drama, and all of these are part of a country's culture. They add richness and variety to our lives.

Read the text. Tell the students that art (painting, drawing, sculpture), dance and music are expressions of moods, emotions, and stories about life and love, and thankfulness for all the God has blessed us with. All provinces in Pakistan have their own forms of dance and music to express the people's happiness at weddings, harvest, festivals, and celebrations; the rhythm and drama of battle and the joy of victory. Dances performed to the rhythm of music can be light-hearted and joyous. The beat of the drum and playing of instruments inspire people to express themselves and participate. Some schools also have music classes which relax the students' minds and apart from teaching an 'art' form, also relieve the stress and anxiety of school work.

If the school offers music classes, ask the students how they feel when they are in the music class? Do they enjoy it? Let the students share their experiences.

Talk about the occasions when people dance—such as folk dances (not the film variety!)—this would be at folk festivals and at weddings. Other family members also join in to share the joy of the occasion. Refer to the pictures—ask the students what other folk dances they know about such as *luddi*, *bhangra*, and *leva*. Apart from these there is classical dance which is also an art form that expresses poetry and drama. Explain that this form of dance requires several years of rigorous training.

Read the text about the presence of music in our lives and culture. Remind the students that cultures develop from the practices of several generations and variety of people who come to live in a region and leave behind their traditions. Music also develops this way. For example, some centuries ago, there were fewer instruments and no way of preserving what was sung or played. With the advance of technology, songs and music could be recorded, and new systems that could replicate (copy) the sounds of various instruments brought about a great change. Secondly, one finds that music is also a



part of religious festivals, especially at Sufi shrines, where devotional music like Qawwali is performed. Playing a musical instrument is also a form of art just like dance. Ask if any of the students plays an instrument; if so, let them talk about it briefly.

Show the students pictures of the variety of classical instruments mentioned in the book. Ask them to draw these in their notebooks and write the names.

Nowadays, our music is a combination of east and west. Talk about the current forms of music, such as pop music which is particularly admired by the younger generation. Ask students to name their favourite songs and singers. Talk about some of their famous songs. If possible, students can sing a stanza of a national pop song as well.

**Conclusion:** 5 minutes

Recap the lesson. Questions 1 and 2 can be asked to facilitate the process.

**Homework:** Work page Exercise B and the second and third activities of ‘Things to do’ are to be done for homework.

## Lesson plan 46: The arts

**Duration:** 40 minutes

**Objective:** To appreciate the different aspects of culture, particularly in Pakistan

**Outcome:** Students will be able to

- know how art and architecture reflect the culture of a place
- identify the kinds of art found in Pakistan
- see how literature helps us to understand the culture it belongs to

**Resources:** Textbook; books and anthologies by Pakistani writers and poets; pictures of truck art on the roads of our country; a presentation on Sadequain’s or Gulgee’s calligraphy

**Introduction:** 10 minutes

Begin with the homework given in the previous lesson. Ask the students to show the designs they have made and coloured, and to tell the class where the design comes from—a tile, a carpet, or a traditional pattern on a shawl, etc.

Ask the students what kind of large vehicles they see on the roads while coming to school and going home. Possible responses would be buses, dumper trucks, tankers or bowzers, and big trucks that carry goods from one town to another. Have they noticed anything special about these? Most trucks and, sometimes, buses too are gaily painted with all kinds of designs, landscapes, birds and animals. Ask the students what kind of paintings these are, and who makes them.

Introduce the topic of today’s lesson—art as a part of culture.

**Explanation:** 20 minutes

As explained before, drawing and painting are a natural way of expressing and recording what one sees in one’s surroundings, and what impresses us, makes us happy—or sad. Tell the students that even when humans lived in caves, they made drawings of animals, hunts, and perhaps, people on the cave walls, using sharp stones and burnt wood.

Explain that patterns and designs, seen on fabrics, pottery, carpets, jewellery, and architecture, all reflect the culture of a people. Some patterns become traditional and are always associated with a particular region, like the *ajrak* motifs from Sindh and the black and red geometric patterns of Bukhara carpets.

Read the lesson. Tell the students about Pakistan’s artists whose work and style are world-famous—Sadequain, Chughtai, Ustad Allah Bakhsh, and Gulgee. Talk about calligraphy as an Islamic art form: it is a unique and decorative style of writing words and ayats of the Quran. The words are so precious that to give them a special significance they were written in a calligraphic style. Share a presentation on Sadequain’s calligraphy, easily available on the net.

Talk about the truck art discussed in the introduction: this art form is almost unique to Pakistan. Trucks driving down from the northern provinces have elaborate paintings on their side and back panels, and even doors, showing the natural landscapes, birds and animals of the areas they come from. People who live away from their homes for long periods of time express their love for their homes and people in this way. Ask the students to note what they see on such trucks when they pass by one. Inform students that this form of art is found in some other places as well such as Thailand and the Philippines where public transport is gaily decorated.

Architecture also reflects the culture of a people. In Lesson 16, the class has studied about the Mughals who were famous for their architecture and its distinctive style—all the buildings of the past, across the world, are now protected under the Heritage Act. Compare these to the modern buildings now constructed in most places in the world—they have a similar architectural design and style of engineering. Talk about some of the tall buildings and structures of the world: the skyscrapers of the West, especially USA, Eiffel Tower in Paris, Burj Khalifa of UAE, Petronas Towers of Kuala Lumpur and Sydney Opera House in Australia are a few examples.

Read the text further. Literature alone can teach the beauty of language and words, and it is a very important part of culture. Ask students if they know the names of any of our poets. Ask them to recall poems they learn in Urdu lessons at school. Tell the students about well-known Pakistani writers who have written prose, drama, and poetry in Urdu, English, and regional languages and are also recognized internationally.

Show the students some books and collections of poetry by Pakistani writers and poets from the school library, and ask them to choose any one writer or poet and gather information and pictures about the life and famous works of that personality.

**Conclusion:** 10 minutes

Class work: Work Page Exercise A is to be completed by students independently.

Recap the lesson by discussing Questions 3 and 4 on page 74; this will also help to assess the students’ understanding.

**Homework:** Worksheet 18 from the Teaching Guide Appendix is to be completed for homework.

## **Lesson 19 Foods, festivals, and games**

### **Lesson plan 47: Foods, festivals, and games**

**Duration:** 40 minutes

**Objective:** To recognize the different ways of expressing the culture of a region

**Outcome:** Students will be able to

- identify food, games and festivals all comprise an integral part of culture
- list the foods each province is famous for
- name at least ten herbs used in Pakistani dishes
- identify the festivals celebrated in Pakistan

**Resources:** Textbook; Teaching Guide for explanation; samples of different herbs and spices; pictures of local festivals and sports

**Introduction:** 10 minutes

As suggested in the Teaching Guide, ask the children to list what they had for dinner the night before, and what they had for breakfast. Then ask them about their favourite foods and list the responses on the board. Notice that while lunch and dinner may have traditional items on the menu, breakfast and children's favourite foods may be modern and 'fast food' items.

Explain that the way food is prepared and served also reflects the culture of a people and the region.

**Explanation:** 20 minutes

Read the text which informs the children about Asian and Pakistani cuisine, and what makes it special. We use spices in our food to add flavour as well as to make the food easily digestible, as some spices also have medicinal properties. (See the explanation in the Teaching Guide, page 39.) Display at least 10 whole spices to the class, in little bottles or clear plastic bags, each labelled with the names in English and Urdu. These are spices used commonly in every home in Pakistan, and South Asia.

Ask the students if they can identify the spices. Tell them the name of each spice and the taste it adds to a dish. Ask students if they can name some spices other than these. Subcontinental food is now quite popular across the world especially in countries where there are South Asian people. It will be interesting to find out the origins of various dishes we have in Pakistan, such as *pulao*, *haleem*, *shami kababs*, and *tikkas*, as well as different desserts. The students will be surprised to know that the ancient Persians used to pour fruit juice over snow to make a cool treat for summer. Snow would be collected from mountain tops or a snowfall and stored in underground chambers. The ancient Chinese, Romans, and Arabs also made chilled desserts, and Arabs are believed to be the first to make something like ice cream.

Ask students about their favorite juices. Inform them that drinking fresh juices is much healthier than drinking canned juices or fizzy drinks.

Talk about festivals, and explain why festivals are celebrated. These are days celebrated to mark events and even seasons. Ask the students if they know about a festival which is celebrated in Punjab. It is Basant, a festival to celebrate the arrival of spring and the blooming of yellow mustard flowers. People wear all shades of yellow, and everyone including men, women, young or old and even children participates in kite-flying on open grounds and, dangerously, on their rooftops. The sky looks very beautiful as it is full of all sorts of kites. A religious festival called Nauroz is celebrated by Parsees on 21 March, which marks the spring equinox. Nauroz is not only celebrated by Parsees but also by the Iranian people and those of Irani origin living in India and Pakistan. In Afghanistan and Iran there is a public holiday on the day of Nauroz. Talk about the festivals that Muslims celebrate in Pakistan: Eid-ul-Fitr, Eid-ul-Adha (Azha) and Eid-e-Milad-un-Nabi (SAW). Christmas is another festival which is mainly a Christian festival but is celebrated in most of the countries of the world. New Year's Eve (31 December) is celebrated across the world, and then the Chinese New Year is celebrated in China and its neighbouring countries, as well as by the Chinese community in other countries.

Ask the students to find out about festivals celebrated by other communities and cultures, such as Easter, Diwali or Baisakhi. Encourage the students to list as many festivals as they know that are celebrated in Pakistan.

**Conclusion:** 5 minutes

A quick recap of the topics covered would be in order.

**Homework:** The first activity of 'Things to do' is to be given for homework.

## Lesson plan 48: Food, festivals, and games

**Duration:** 40 minutes

**Objective:** To recognize that sports and games are also a part of culture

**Outcome:** Students will be able to

- know that games and sports also have a history and are a part of one's culture
- realize that love of sports shows the attitude of a nation
- identify the major games and sports played in Pakistan

**Resources:** Textbook; pictures of players in action from the Sports pages of newspapers; Worksheet 19 from the Teaching Guide Appendix

Note: the students will bring recipes and some dishes prepared as homework. Arrange to display and then share them.

**Introduction:** 10 minutes

Greet the students and ask them about the homework. Students share the recipes and the dishes they have prepared with the class. Let the students sample the dishes neatly. Talk about the importance of right recipes for making food. Appreciate the students' efforts.

**Explanation:** 25 minutes

Read the text on games which is quite self-explanatory. Ask students to name the games they like to play. Compile the list of the games and also include both indoor and outdoor games. Students can copy the list in their exercise books. This corresponds to the second activity in 'Things to do'.

Talk about the latest sports event in the country and the main players. Make sure to include both boys and girls in the discussion.

Ask the students to name the games that involve playing with a ball, for example, cricket, tennis, hockey, netball, baseball, basketball, football, squash, etc. Now ask them to name some sports which do not require playing with a ball. Swimming, athletics (running), gymnastics, and badminton are some examples.

Explain that Pakistanis are a sports-loving nation and have excelled internationally in games like cricket, hockey and squash. Polo is another game that is very popular, especially in the north. Tell them about the world-famous Shandur Polo Festival held annually in Gilgit-Baltistan.

Tell the class about sports played in the ancient past, and the Olympic Games that began in ancient Greece. Emphasize the fact that games and sports are not only played for recreation and competition, but they also inculcate team spirit, and the importance of playing for participation rather than just for winning.

**Conclusion:** 15 minutes

Discuss the questions given at the end of the lesson to assess students' comprehension.

Class work: Work Page Exercise A can be completed in class, followed by the answer to Question 4 on page 78, to be answered in the note books.

**Homework:** Work Page Exercise B is to be done for homework.

Worksheet 19 may be used for assessment.

## Lesson 20 Animal rights

### Lesson plan 49: Animal rights

**Duration:** 40 minutes

**Objective:** To further explain the concept of 'rights' and its application

**Outcome:** Students will be able to

- explain the term 'rights' in their own words
- identify the five basic rights for all living things
- realize the need for respecting the rights
- understand that animals need to be treated with care, consideration and kindness

**Resources:** Textbook; Teaching Guide for explanation; video clips or pictures showing animals in various situations

**Introduction:** 10 minutes

Ask the students to recall the lessons in Class 3 about the term 'rights'. What does 'rights' mean? A right is a claim that every human has no matter who they are, where they live, what religion they follow, etc. These basic rights are universal, meaning that they are applicable for all human beings. Ask the students to share their understanding by saying a few sentences about each right.

**Explanation:** 20 minutes

Read the text to the end of the first paragraph. Explain that like humans, animals are also living things; they too can feel pain, tired, hurt, hungry, and lonely—but they cannot express themselves. That is why we need to care for them, especially animals that we use for transport and farming, and those kept as pets, and even stray animals. Read out the first paragraph from the Teaching Guide's explanation of this lesson to emphasize this point.

Talk to the students about how animals—not just pets, but even stray animals—are treated in some advanced countries: they get as much attention and care as humans do. Ask the students if they view TV programmes like Animal Planet, or related programmes on National Geographic and Discovery. People are seen cuddling the animals, treating them with kindness and offering food. Animals that serve us, and protect us should be treated with care, fed properly and if they fall ill or hurt themselves badly, they should be seen to by the vet, an animal doctor. This advice also applies to birds that people have as pets.

Read the text on farm and transport animals. Tell the class that these animals are also called 'beasts of burden' as they carry the burden for their masters. However, ask the students how they would feel carrying heavy loads without any break for meals or a drink of water, and are punished if they slow down or stop.

Another aspect is of animals used for entertainment. Animals are clever and can be trained to perform and respond to orders. The Huskies in the polar regions have saved the lives of their masters in stormy and extreme weather. But being cruel to an animal to train it is not allowed. Ask students if they have ever seen a monkey perform different tricks on his master's commands. Ask them to recall how the little animal is controlled? Isn't it painful for the animal to be used this way?

Talk about pets at home: how many students have a pet animal, and how do they care for it? Students who may have a pet can share how they take care of it, including the feeding pattern, the bathing time, visits to the vet and vaccinations.

Read the text to the end of the paragraph under 'Animals as pets'.

**Conclusion:** 10 minutes

Discuss the first two questions on page 82 as recap of the lesson.

Class work: Work Page Exercise A is to be completed by the students. This is a fairly simple exercise and they can do it independently.

**Homework:** Work page Exercise B can be given for homework.

## Lesson plan 50: Animal rights

**Duration:** 40 minutes

**Objective:** To further discuss animal rights

**Outcome:** Students will be able to

- realize that our religion teaches us to be kind towards animals
- identify the organizations that are working to protect animal rights

**Resources:** Textbook; Teaching Guide for explanation and Worksheet 20 from the Appendix

**Introduction:** 10 minutes

Enquire about the homework. Students suggest the names of the movies and animations based on animals. Talk about students' favourite television programmes on animals and the channels that air them, e.g. National Geographic, Animal Planet, and Discovery.

Emphasize that kindness to animals is a commendable quality that shows that a person is aware of his/her duties towards God's creatures. It is important to tell the children that animals also care in their own way for the people who are kind to them.

**Explanation:** 20 minutes

Read the text onwards from the last paragraph on page 81. Show the students pictures of London Zoo where animals are kept in a environment closest to their natural habitat and they look healthy and happy. Talk about the zoos in Pakistan. In many cases, the animals are not looked after, nor housed and fed properly. They pace about in small cages, or fall ill because of the heat. There should be a proper vet available at the zoos to check on the animals and treat them if they fall ill. The Lahore Zoo is a better example as compared to the zoos in other cities. Ask the students if they have themselves ever disturbed an animal in the zoo. How would they feel if they were disturbed while sleeping or resting? Unhappy and angry! Similarly, the animals in the zoo should also not be disturbed or have things thrown at them.

Inform the students that in the past animals were commonly used for testing new drugs and for experiments in the science laboratories. But as people and organizations are becoming more active in protecting animal rights 'animal testing' is now forbidden in many countries of the world. Using animal fur for coats and caps is a terrible thing as it promotes the demand to kill the precious animals for their valuable fur.

Tell the students that in many developed countries animals are kept in fenced grounds in their natural habitat, like the Safari parks in Africa, and even in India, where visitors are taken around in closed vehicles to see them. However, in less developed countries, animals are killed by poachers and sold for their fur and body parts, like the elephants' tusks. This is a criminal activity punishable by law.

Talk about the organizations working in Pakistan to protect animal rights. Our religion Islam teaches us to be kind towards animals. Narrate a story or two from the life of the Holy Prophet (SAW) where he showed kindness towards stray animals. Talk about animals being loyal to their masters and performing strange heroics in situations to save their masters or those who have been kind to them.



**Conclusion:** 10 minutes

The last two questions on page 82 may be discussed in class. Encourage students to come up with their own ideas about how we can help animals.

Ask the students to write an oath saying that they will never hurt an animal in any way and will be kind to all animals. This can be put up on a chart paper for class display. Students can write their names or sign under the oath to show agreement with it.

**Homework:** Worksheet 20 is to be done for homework.



## APPENDIX: WORKSHEETS

### Unit 1: Geography

#### Lesson 1: The Earth in space

1 Why does it take 24 hours from one sunset to the next?

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2 Why does a place receive lesser sunshine, the further it is from the equator?

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3 In the space below, draw a diagram to show the rotation and revolution of the Earth, and label it.



## Lesson 2: Climate

1 Fill in the blanks.

- i) When the climate is not too hot or too cold, it is called \_\_\_\_\_.
- ii) Places that have \_\_\_\_\_ receive more rainfall.
- iii) The \_\_\_\_\_ high above the Earth is quite cold.
- iv) The seasonal rain-bearing winds in south-east Asia are known as the \_\_\_\_\_.
- v) In Pakistan, monsoon rains fall between the months of \_\_\_\_\_ and \_\_\_\_\_.
- vi) Places close to the \_\_\_\_\_ have a cool, moderate climate.

## Lesson 3: Our country

1 Which area of Pakistan has hardly any rivers?

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2 In what way is life different here from that in the Punjab?

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3 Why do more people live in the plains of our country than in the northern regions?

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## Lesson 4: The Western Highlands

1 Name the plateaus found in Pakistan.

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2 Which ranges separate Pakistan from Afghanistan?

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3 What is a *hamun*? Where would you find Hamun-e-Mashkel?

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4 Name the rivers that flow into the sea at the Makran coast.

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5 Tirich Mir and Noshaq are peaks in the \_\_\_\_\_ Range.

6 The road that crosses from Pakistan into China is the \_\_\_\_\_.

7 Name the main passes found in Pakistan.

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## Lesson 5: River Indus and its plains

1 Fill in the blanks.

- i) The length of the River Indus is \_\_\_\_\_ km.
- ii) The place where the Indus enters the Punjab is called \_\_\_\_\_.
- iii) The tributaries of River Indus join it at \_\_\_\_\_.
- iv) The Indus Delta is to the south-east of \_\_\_\_\_.
- v) The River Indus flows down into the \_\_\_\_\_.

2 During which months of the year is there plenty of water in the River Indus? Why is it so?

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3 Would you expect to see more boats on the river at Sukkur or at Kalabagh? Why?

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## Lesson 6: The soil and agriculture

1 What is erosion? How does it take place?

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2 How can erosion be controlled?

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3 What is terrace farming? Where is it practised?

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4 Name some fruits grown in Pakistan. Also name the areas where they are grown.

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## Lesson 7: Forests

1 Read and mark these statements as true (T) or false (F).

- i) Alpine forests are found in the coastal areas of Pakistan. \_\_\_\_\_
- ii) The juniper forest of Balochistan is very old and is a protected site. \_\_\_\_\_
- iii) Mangroves protect coastal areas from tidal waves and tsunamies. \_\_\_\_\_
- iv) Riverine forests are found in the highland areas. \_\_\_\_\_
- v) Plantations are man-made forests. \_\_\_\_\_

2 In what ways is the eucalyptus useful?

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3 Why is the *neem* tree so valuable?

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## Lesson 8: Water and its uses

1 Briefly describe the water cycle.

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2 How are dams and barrages useful?

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3 Complete these sentences.

- i) Pakistan has the largest \_\_\_\_\_ in the world.
- ii) When water is heated by the Sun, it turns into \_\_\_\_\_.
- iii) Almost \_\_\_\_\_ of the Earth is covered by water.
- iv) Water from tube wells is pumped up by \_\_\_\_\_.



## Lesson 9: Power, minerals, and industries

1 Name the different sources of power. Which sources are most used in Pakistan?

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2 Explain what is meant by raw materials.

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3 Name two examples each of metallic and non-metallic minerals found in Pakistan.

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4 How are fossil fuels formed? Where are they found?

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5 What is Pakistan's biggest industry?

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6 Name some of Pakistan's industrial products.

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## Lesson 10: Transport

1 Fill in the blanks.

- i) The \_\_\_\_\_ were among the first people to develop good roads.
- ii) In Pakistan, the road network covers \_\_\_\_\_ kilometres.
- iii) Motorways are fast because they do not have \_\_\_\_\_ and do not \_\_\_\_\_ small settlements.
- iv) More people use highways because they are \_\_\_\_\_ than flying and faster than \_\_\_\_\_.
- v) Pakistan's railway network covers \_\_\_\_\_ kilometres.
- vi) Railway engines in Pakistan are powered by \_\_\_\_\_.
- vii) Pakistan's main international airports handle \_\_\_\_\_ passengers every year.
- viii) PIA began operating in \_\_\_\_\_.
- ix) Pakistan's main ports for shipping are \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

## Unit 2: Citizenship

### Lesson 11: Communications

1 Why is email such a popular means of communication?

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2 Explain why cellphones have become so popular.

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3 What useful information have you gained recently from a) listening to the radio and b) watching television?

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4 Name three of your favourite FM radio channels. Briefly say why you enjoy them.

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## Lesson 12: The government

1 Why is it important to have a government in a country?

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2 What is the minimum age for voting in Pakistan?

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3 Explain how elections take place.

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4 Do you know of any form of government other than democracy? Name the country and the ruler.

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## Lesson 13: The law

1 Complete the following statements.

- i) The highest court in a country is the \_\_\_\_\_.
- ii) The highest court in a province is the \_\_\_\_\_.
- iii) Breaking the law is called an \_\_\_\_\_ or a \_\_\_\_\_.
- iv) When an offender is taken to the court, his/her case is heard by a \_\_\_\_\_ or a \_\_\_\_\_.
- v) The person who tells the court about a crime also called a \_\_\_\_\_.

2 Make up one rule for the school playground. Also write the punishment for breaking that rule.

Rule: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Punishment: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Lesson 14: People and work

- 1 Find out names of people among your family and relatives who belong to five different professions. What do they do?

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- 2 Give examples of five jobs that do not require skills.

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- 3 Write briefly about the kinds of jobs people do in the villages.

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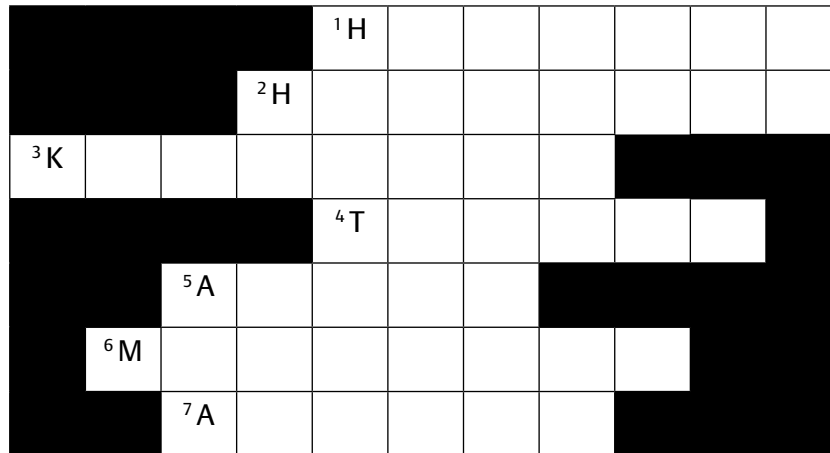
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## Unit 3: Our History

### Lesson 15: Our past

1 Complete this word puzzle following the clues. When you finish, you will find a new word (beginning with H) going top to bottom.

- 1) An Indus Valley Civilization site
- 2) A religion brought in from Central Asia
- 3) The most famous Kushan ruler
- 4) This was the seat of the Gandhara civilization
- 5) He was a powerful Maurya ruler
- 6) This site in Balochistan is older than Mohenjo Daro
- 7) This Central Asian race invaded the subcontinent and settled here



2 Name the route taken by Alexander and his army to enter the subcontinent.

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3 What have archaeologists found when ancient sites were excavated?

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4 Give the names of the two Chinese pilgrims, with dates, who visited the subcontinent.

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5 Who were the Huns? What did they do?

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## Lesson 16: Muslim rule in the subcontinent

1 Describe the two ways in which Muslims first came to the subcontinent.

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2 Who was Mahmud? Why did he become famous? Where is he buried?

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3 Name the Mongol rulers who were a threat to the subcontinent.

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4 Who was the only female ruler of the Delhi Sultanate?

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5 Who was Ibn Batuta? What did he do?

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6 Why and where did Humayun go into exile? When did he return?

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## Unit 4: Culture and Society

### Lesson 17: Religion and languages

1 Name the holy books of the Hindus.

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2 Who was Buddha? What did he do for many years? What did he become famous for?

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3 Find out and write the names of five other Islamic countries.

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4 What is the difference between a language and a dialect?

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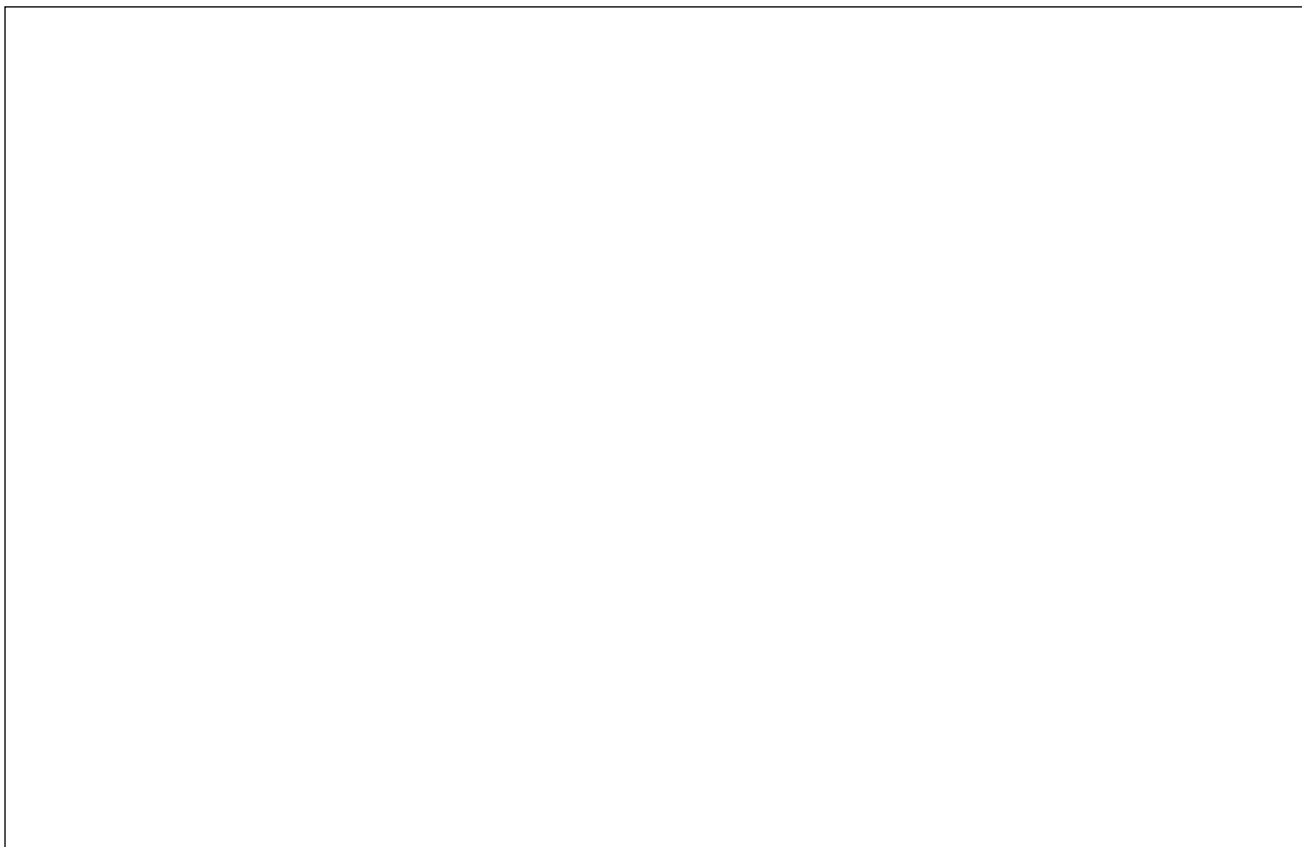
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## Lesson 18: The arts

Complete these statements.

- 1) A country's culture is formed by its \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
  - 2) Dance is a way of \_\_\_\_\_.
  - 3) Traditional dances by various groups are called \_\_\_\_\_ dances.
  - 4) The two forms of music most enjoyed are \_\_\_\_\_ music and \_\_\_\_\_ music.
  - 5) Calligraphy is a stylized form of \_\_\_\_\_.
  - 6) The craft of designing and building is called \_\_\_\_\_.
  - 7) The writing of prose and poetry is known as \_\_\_\_\_.
- 2 In the space below draw and decorate a car, in the truck-art style.



## Lesson 19: Food, festivals, and games

1 Make a list of the spices in your kitchen. Find out where they originally come from.

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2 Name two places in your city where you can get food cheaply and two places where it is expensive.

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3 Find out and write the names of three sports (other than cricket) in which Pakistan participates internationally.

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4 Find out the name of Pakistan's top tennis player and the latest matches he has played.

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## Lesson 20: Animal rights

1 Write about three animals that help us in farming. Explain how they are used.

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2 Make a list of all the animals that are eaten in Pakistan.

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3 Find out and list the names of endangered animals in Pakistan.

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4 In the space below, draw a poster for protection of wildlife in Pakistan. Think up a catchy slogan.



