OXFORD HISTORY FOR PAKISTAN

TEACHER'S GUIDE ONE

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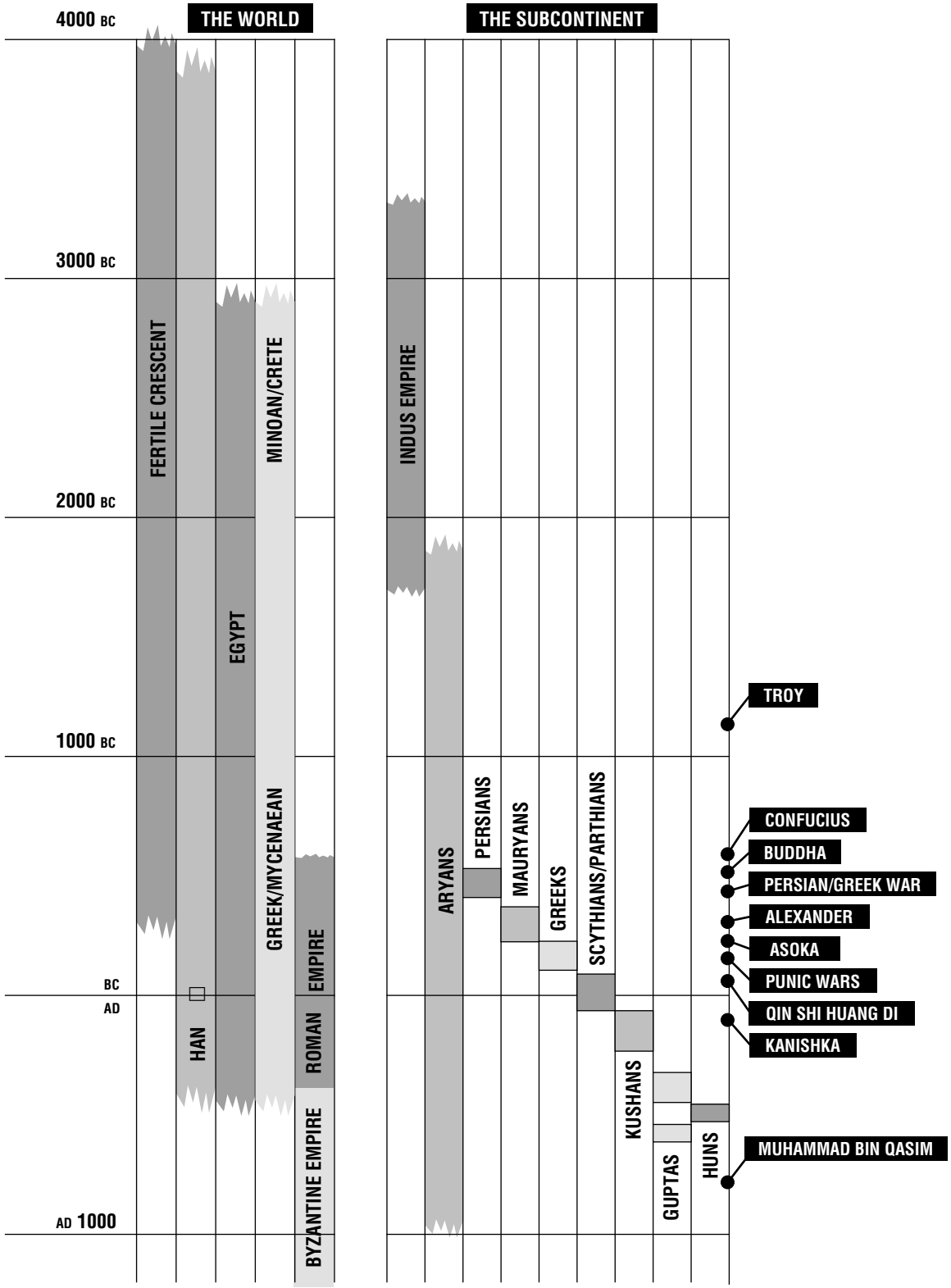
THE WORLD

PAKISTAN AND THE SUBCONTINENT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PREFACE

Every history teacher knows that the subject is limitless and the time for preparing lessons is comparatively minute. Classes vary in ability and much of the material in the syllabus is outside the pupils' knowledge and culture. These Teacher's Guides are not intended to usurp the teacher's skills but to make suggestions and offer some help. The following areas are covered by each Guide, which has been especially designed with the needs of the Pakistani teacher in mind:

(a) As space is limited on a two-page spread, facts in the Pupil's Book have been reduced to the basic minimum. The Teacher's Guide contains supplementary material in the form of stories, additional facts, legends, and activities which will make the lesson more interesting. This additional information may be used at the teacher's discretion and according to the relevant strengths and/or weaknesses of each class.

(b) Ideas for simple and rapid sketches on the board are sometimes given to explain otherwise difficult concepts. These are well within the ability of the least-skilled artist.

(c) Contemporary extracts (which may be difficult to obtain outside the United Kingdom), such as legends and amusing anecdotes, are included in the Guides and can be used to bring the subject to life. It is very important that pupils realize that the people of the past were human beings just as we are, with the same feelings, attitudes, and tastes. These excerpts can be used as models for brighter pupils to write their own short accounts.

(d) Looking at contemporary pictures to extract information is invaluable as it encourages students to exercise their analytical and creative abilities. Suggestions of questions to ask on important photographs in the Pupil's Book are given along with material on less obvious points.

(e) Answers to the questions in the Workbook are included at the end of each unit.

(f) The corresponding page numbers in the Pupil's Book are given on the top right-hand corner of each new unit for ease of reference.

WHY LEARN HISTORY? / MEASURING TIME

2/3

Answers to Workbook p.1

1. (b), (d) and (e) are correct.
2. Looking at the Sun. Sundials; night. A round vessel from which water flowed through a hole in the base, with a time-scale marked on the inside of the vessel.
3. Before Christ. In the year of the *Hijrah*. *Anno Domini;* in the year of our Lord.
4. 535 BC. AD 1588. AD 72.
5. AD 622; the *Hijrah*. The Islamic calendar is based on the movements of the Moon, while the Christian calendar is based on the Sun.
6. (a) 0900; (b) 1400; (c) 2200; (d) 2359.
7. Individual work.

THE WORLD IN THE BEGINNING

4/5

Points to emphasize

1. Mushroom-cloud theory

The theory that an elliptical-shaped cloud of gases was drawn out from the Sun by a passing star seems to be confirmed by the diameters of the planets, going from Mercury, closest to the Sun, to Pluto, the outermost planet: Mercury—5000 kilometres in diameter; Venus—12,000 kilometres; Earth—13,000 kilometres; Mars—7000 kilometres (somewhat of an anomaly); Jupiter—143,000 kilometres; Saturn—120,000 kilometres; Uranus—52,000 kilometres; Neptune—48,000 kilometres; Pluto—2500 kilometres.

2. Evolution

The great controversy in science is how the mixture of inert chemicals was initially activated and became 'life'. This is the great mystery, still unsolved. Once the group of chemicals in the right proportions had started to re-create themselves, they were alive. From these simple living molecules the rest of evolution seems very predictable. Abnormalities in an organism, caused no doubt by radiation from the Sun and outer space, may have enabled it to adapt. According to Darwinian theory, characteristics which enable an individual creature to survive better than the others of its race will produce offspring more adapted to their environment—those less fitted to survive will eventually die out. The classic example is of a primitive deer-like creature which fed on leaves of bushes and trees. A fluke abnormality gave one of these creatures a much longer neck than the norm. When there was a drought or some other problem with the growth of local vegetation, the longer-necked one survived because it could reach higher branches. The short-necked ones tended to die out—hence the giraffe. This is a crude approximation, but the principle is correct, even though the entire process would have taken hundreds of thousands of years.

3. Lucy

There seems to be no doubt that the first proto-humans appeared in Africa, most probably in the Kenyan region. Archaeologists call the earliest hominid bones they have discovered 'Lucy' as they are of female remains. She was probably one of the progenitors of the whole human race.

4. Time

Try to convey the immense distances of time. As well as the clock analogy (p.4 of Pupil's Book), one could use distance. If the period of the Earth's existence is represented by a line 1 kilometre long, the first hominids appeared 75 centimetres from the end.

5. Dinosaurs

Dinosaurs always seem to fascinate children. Judging by their popularity, they are the most successful creatures that have ever inhabited the Earth. They were probably cold-blooded, egg-laying lizards, some carnivorous, some herbivorous. Some were only a few centimetres long, whilst others, like diplodocus, were about 28 metres in length. Diplodocus was a herbivore, and was so heavy that it could not possibly have been able to survive and move about on land. It probably lived submerged, or semi-submerged, in the all-prevailing swamps, browsing on the surrounding herbage with its long neck. The brains of these creatures were no larger than a walnut and were sometimes situated in the tail rather than in the head.

The end of the dinosaurs is a scientific mystery, as they all appeared to have died out in a matter of a few hundred years. It is now widely believed that there was a cataclysmic change in climate, probably caused by the impact on the Earth of a large asteroid, which threw up such vast clouds of dust that the Sun was virtually blotted out for a decade. This would have caused a sensational fall in temperature. The theory is entirely plausible, for the explosion of the volcano at Krakatoa (in Indonesia), which blew the island in half in 1883, sent clouds of dust round the world for three years, resulting in spectacular sunsets.

6. Land bridges and migration

Hominids seem to have spread out from Africa over the land bridge of Suez to the rest of the world. Over hundreds of thousands of years, differentiation took place through accidental mutation – the characteristic Mongoloid high cheekbones and narrow eyes were present in the earliest Chinese fossils (c. 50,000) BC). There was also a land bridge from Asia to America in the past, enabling human beings to cross over.

7. Fire

Making fire by rubbing two sticks together perhaps give the wrong impression. One piece of wood was a solid block, the other a stick, preferably of hard wood. The tip of the stick was moved firmly up and down a groove in the block until friction heated it up. Dried grass or moss was placed gently on it and blown into a flame. I have demonstrated this in class by rubbing the corner of a wooden ruler against a piece of hard wood.

Answers to Workbook pp.2–3

1. Green slime; 2000 million. Simple insects; lizards. 300 million. 248 to 250 million. Approximately 245 million years.
2. Suggest using 0.5 centimetres = 1 metre for scale. Ancient men could not have fought with dinosaurs because there was a gap of over 200 million years between the appearance of the first dinosaurs and the first animals resembling human beings.
3. Upright man. They stood up straight instead of bending forwards. Wise man. They had a larger brain capacity than *Homo erectus*.
4. Rubbing two sticks/pieces of wood together. (a) Cooking food; (b) protection from animals; (c) enabled them to move to colder climates.
5. This may be done as an oral exercise.

6. (a) Reptiles are cold-blooded and take on the ambient temperature whereas mammals are warm-blooded; (b) reptiles (usually) lay eggs. Research work.

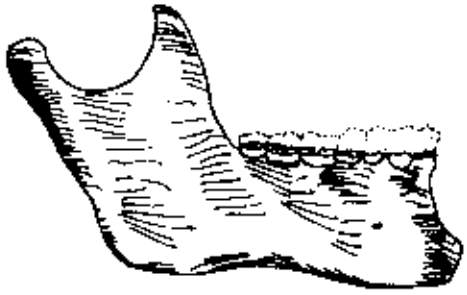
DISCOVERING THE PAST 6/7

Points to emphasize

1. Archaeology

Archaeology is often a kind of detective work as almost all organic material soon disappears and only bone, teeth, and artifacts in stone, ivory, clay, glass and some metals—mainly gold—survive. Some examples drawn on the board may help (a) The roughened end of the femur or other joint indicates that the person suffered from severe rheumatism or arthritis; (b) a lump on the bone indicates that the person had broken it in life and it had healed. Surprisingly at times archaeologists have found circular holes in the skull, obviously cut with a stone tool for magical purposes or to let out evil spirits (perhaps madness), which have re-grown round the edges to indicate that the person actually survived this ordeal; (c) crude bone needles show that clothing—probably skins—was worn. Needles were used to fasten the skins together with narrow leather thongs; (d) loom weights, in either clay or stone, indicate that weaving was now being done; (e) worn-down teeth, often to gum level, indicate old age. The 'bread' ground on stone querns contained a high proportion of grit, which rapidly wore the teeth down to stumps as the person ate. 'Old age' probably meant 30 to 40 years at this period; (f) drop spindle weights for spinning also show that cloth was being woven; (g) the foetal burials and grave goods imply some form of supernatural religion.

Saddle quern for grinding corn

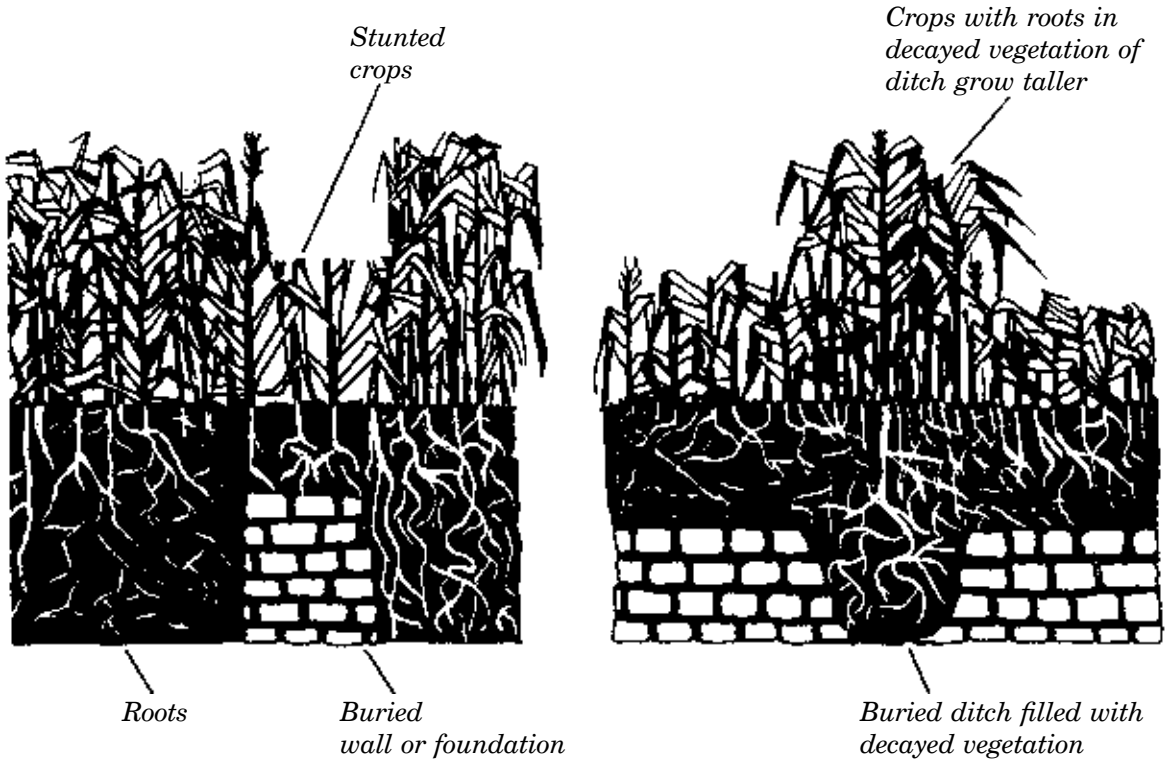


Teeth eventually worn down

2. Crop marks

An interesting aspect of archaeology is crop marks. Usually in exceptionally dry weather the outlines of the remains of ancient buildings, roads and cities can be seen in the changes of vegetation. Where there are unknown stone foundations under the ground obstructing plant growth, the roots of plants (grain is typical) cannot grow very deeply and the plants themselves are consequently shorter than the surrounding vegetation. Where there was once a ditch—a moat perhaps—the area usually fills up with leaves and debris so that it offers a fertile habitat. The crops here are taller than the surrounding ones. This 'crop mark' effect is best seen from the air, particularly in the early morning or late evening when the Sun is low and the shadows

of the higher or lower crops stand out very clearly. The precision of crop marks, showing the exact outlines of once-existing buildings, is quite dramatic.



3. Stone tools

The stone tools at the bottom of p.6 of the Pupil's Book are (i) the all-purpose hand axe—the earliest tool, and often little more than a pebble shaped either accidentally or deliberately. Used for digging, cutting and killing; (ii) a borer—more sophisticated and 'sharpened to a point'. Used for making holes in leather, stone, and wood; (iii) a stone knife—quite a sophisticated tool, chipped on one edge to make a cutting surface; (iv) a fish harpoon made of bone. The barbs are to prevent the slippery fish from escaping (v) a very primitive digging tool rather like a modern hoe. A naturally-shaped piece of wood; (vi) a bone needle—a silver of a large bone perhaps shaped by rubbing, with an 'eye' bored through with the borer; (vii) a loom weight—sometimes clay, sometimes stone. The warp threads were fastened to a framework (perhaps originally a branch of a tree) and kept under tension by this weight tied to the bottom; (viii) stone axe with handle. It was very difficult to fix a stone satisfactorily to the handle so that the tool could withstand strong blows. Probably the stick was split at one end, the stone axe head inserted, and then tied firmly above and below with leather thongs.

Answers to Workbook pp.4–5

1. (b), (d) and (f) are correct.
2. (a) Bones of animals around living sites; pollen grains to show vegetable foods; traces of fire to show cooking has started.
   (b) Brown soil marks of post holes; foundations (later) of buildings.

(c) Bone needles to show skins stitched together; loom weights to show that cloth was woven; drop spindle weights.
(d) Ritual burials; foetal burials; red clay for blood; grave goods.

3. (The Gournia site would exclude any wheeled traffic as the streets were too narrow and extremely steep. Humans and pack animals would constitute the main traffic.
4. There was a belief in an afterlife. The body is buried stretched out and there are pots which hold food (and perhaps water) for the deceased to use in the next life.
5. (a) A fight: person killed by blow to the head by an axe or some other weapon.
(b) Foetal burial: probably worship of Mother Earth goddess, the dead person symbolically returning to the womb of the Earth. Indicates spiritual beliefs.
(c) Coffin burial: dark stain indicates remains of a coffin. This would probably have been a fairly late specimen.
(d) Noblewoman: probably princess or queen, indicated by precious gold jewellery.

THE OLD STONE AGE

8/9

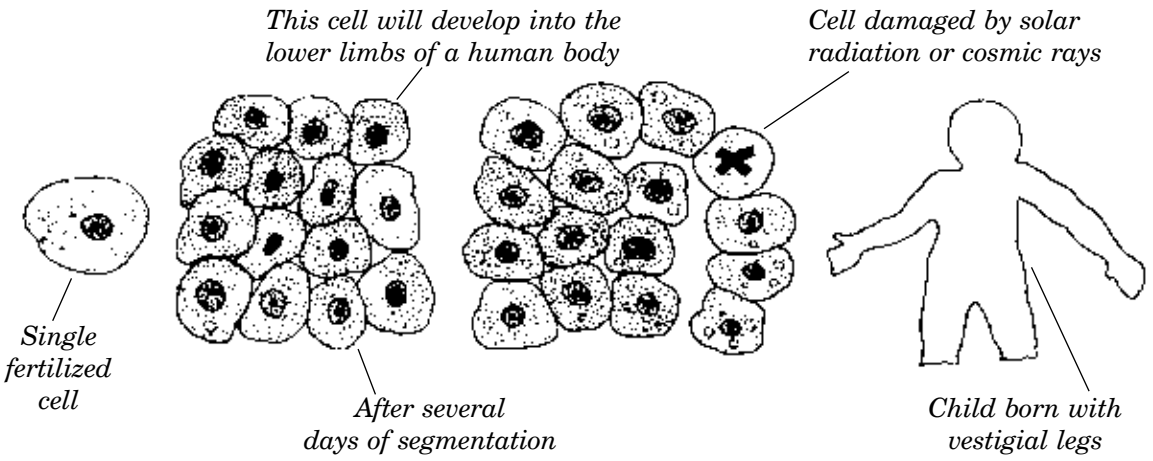
Points to emphasize

1. Evolution

Try to emphasize that evolution was an extremely slow process: in 250,000 years the only major developments were the rough shaping of stones, the use of fire and possibly the beginning of fur clothing. Throughout this period, people were hunter-gatherers. As perhaps, the pressure for food pushed some further from their African homelands to the north, the colder climate necessitated the search for sources of heat.

2. Mutation

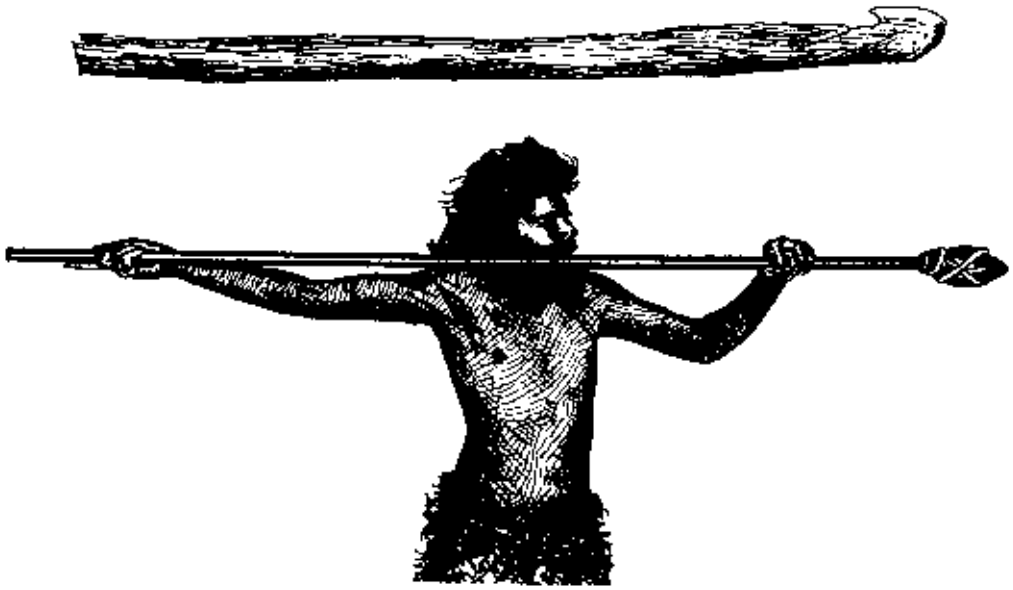
Try to give pupils some idea of the process of mutation. The foetus was sometimes damaged *in utero* by radiation coming from space, which would have passed easily through human tissues. If radiation damaged the fertilized egg at an early stage in segmentation, the result might be immense in the full-term offspring. Most often, of course, it resulted in what were terrible deformities—missing limbs and so on—but occasionally there was a beneficial change. The increased brain capacity of *Homo sapiens sapiens* would most likely have been a result of one



of these accidental mutations. This increase in the power of the brain (which has more to do with the 'wrinkling' of the surface than with sheer cubic capacity) probably took thousands of years. Perhaps a simple diagram of a single fertilized cell dividing progressively into smaller components (2..4..16.. etc.) sketched on the blackboard might help. Each of the cells in the tiny embryo would eventually develop into a major part of the human body—brain, limbs, digestive system etc.—so that any damage to a single cell could have dramatic effects.

3. *Homo sapiens sapiens*

The inventions of the *Homo sapiens sapiens* eased the pressures of life a little. The bow and arrow was of crucial importance, allowing people to kill from a distance. The weapons, however, were so crude at this time that they probably disabled rather than killed the target. Skilled archers also managed to extend their food supply to flying birds. The throwing stick for use with spears was again a very important adjunct to hunting. The stick in effect, lengthened the arm so that the spear could travel faster and further.



4. Domestication of dogs

The domestication of dogs was probably accidental and a matter of convenience for both parties: the dog received meals in exchange for its services in hunting. Domestication soon led to extremely tame dogs, as generation after generation was born in captivity.

5. Beginnings of settled life

Better hunting skills and equipment meant that constant travel was no longer essential, and in favourable sites—river banks, for example, or where there were caves—a group could settle for weeks or months. The grain/seed/fruit element was still a problem as this had to be gathered from the wild.

6. 'Fashion'

It is interesting how early in history 'fashion' became a part of human existence. 'Jewellery' of heads, shells, bones etc. are extremely common in graves of this period; a little later, the clay figurines indicate that hair-styles were quite complicated.

7. Cave painting (Pupil's Book p.9)

Perhaps pupils can try to guess the story behind this cave 'painting'. It is, in fact, a later Stone Age rock painting interpreted by recent scholars as recording a shamanistic trance dance known as *simto*. Hallucinations of animals were an important feature of the trance dances. Here a shaman is depicted with an elephant.

In general, however, most cave paintings were used as 'sympathetic' magic, i.e. representing a designed and hoped-for state of affairs instead of events which actually transpired.

8. Mother-goddess figurine (Pupil's Book p.8)

The mother-goddess figurine is obviously a fertility symbol—children were a vital asset in an age when through accident, disease or malnutrition probably more than half the babies died in infancy. Perhaps one of the most interesting aspects of this artifact is the elaborate hair-style, which shows that plaited and coiled hair were fashionable in the Old Stone Age, 20,000 years ago. The artist who carved this (remind the pupils that he had only another stone to do it) deliberately exaggerated those features which signified fecundity—the broad hips, the large breasts. The hair-style, which would have been very difficult to carve with such primitive tools, must have had some importance or it would not have been attempted. Other 'Venuses' have a similar emphasis on hair.

Answers to Workbook pp.6–7

1. (a) Making fire; (b) shaping stones more accurately and skilfully; (c) barbed bone fish spears; (d) skin/wood shelters.
2. *Homo sapiens sapiens*. 40,000. Man-wise-wise.
3. (a) Handles for weapons; (b) bows and arrows; (c) the domestication of dogs; (d) spear throwing; (e) caves/shelters; (f) jewellery of bone and clay; (g) 'painting' caves; (h) leather/fur clothing.
4. Wandering to gather seeds and hunting. More animals could be killed which meant that people did not have to hunt for most of the time; could remain sedentary for longer periods of time; better diet as food was more plentiful.
5. (Can duplicate parts of 3 above.) Reasonably steady food supply; time for things apart from the sheer struggle to stay alive, like 'fashion' (i.e. ornaments, hair-styles and fur/leather clothing).
6. Creative work.

THE NEW STONE AGE

10/11

Points to emphasize

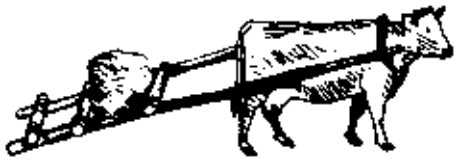
1. Agriculture

The 'discovery' of agriculture was perhaps the greatest breakthrough in the history of the past. The whole of civilization really flowed from the advantages derived from farming. The

process evolved over thousands of years. Some teachers may like to tell pupils the story of the careless woman who upset the container (or leather bag) of grain and seeds as an illustrative example. When her clan returned the next year, they found a rich crop which had sprung from the accidentally scattered grain.

2. Domestication of animals

Domestication of animals (dogs had already been tamed) opened the door to many things such as a fairly regular supply of meat, leather, wool, and bones for tools. The use of animals in load-carrying soon developed, although there were no wheeled carts as yet. Packs and skids were in general use.



The long poles (sometimes fastened to ox horns) with spacer pole tied with leather strips

3. Settled life

A stock of food in general meant a fairly static existence, though nomads still wandered the wider open spaces with herds, as in central Asia. Settlement sites were chosen for good access to water (rivers) and for some defensive elements. Water was also a source of fish, water birds, reeds, and rushes (housing, baskets, boats), mud for building and limited forms of transport. Organizing the small hunting-gathering groups, probably on a family basis, was relatively easy, but a settled existence incorporating several score to several hundred different people demanded some primitive central control. Probably in the earliest settlements this was effected through sheer physical strength. Perhaps the best warrior might be leader, and in the nature of human beings, the chief quickly developed into an hereditary position. As communities became larger there were further divisions, with the nobles generally rising from the ranks of the best warriors. Priests carved themselves a niche with their real, or professed powers of communication or special favour with the gods. Among the ordinary people the craftsmen soon began to specialize, though they generally retained some land and hunted; the transition from hunting-gathering was slow.

4. Reed boats

The tall reeds (2 to 3 metres high) which grow by most warm streams could be gathered freely when dry. They were tied with more reeds into bundles of about 30 centimetres in diameter. As many as were needed were placed side-by-side, and in several layers, and then fastened together with leather thongs. The front and rear of the boat were pinched together with leather strips to make roughly pointed ends. If the reeds were not long enough, they could be staggered to any reasonable length. The coracle, or leather boat, was widely used in the Fertile Crescent, and is still in use today. Skins sewn together (stitching water-proofed with fats) were stretched over a light wooden framework. These boats are by nature circular, which necessitates a rather special rowing technique.

Answers to Workbook pp.8–9

1. 10,000; west Asia. Many thousands of years.
2. It eliminated the need for constant travelling; ensured a fairly steady supply of food; allowed free time to develop more comforts.
3. Sheep, oxen, goats, pigs, horses. It ensured a steady supply of meat, leather, bones for weapons and tools, and wool. Animals could be used to reduce human labour in carrying things and later in pulling ploughs.

4. Fields, crops, and stock had to be constantly looked after.
5. More comfortable; more leisure time; better shelters; specialization; rise of social classes from leader to worker.
6. Reeds easily available beside most warm rivers; easily harvested; could be made into a boat in a few hours with relatively unskilled workers; very light to carry; could hold fairly heavy loads. Refer to (4) in the teacher's notes above for method of construction.
7. Creative work. Refer to (3) in the teacher's notes above for guidelines. Crop land: marshland could be drained; trees could be cut down.

THE AGE OF METALS

12/13

Points to emphasize

1. Discovery of ores

The ores of gold and copper are sometimes found on the surface of the Earth, especially in the Middle East. Although no one knows, of course, it is possible that rocks (in fact ores) were used as the base for a large fire. In the intense heat, the ores melted and solid metal appeared in the ashes. One can only wonder how many hundreds of years this occurred for, before anyone noticed.

2. Use of gold

Gold is extremely malleable and can be formed into complex shapes just by hammering. It is, however, very soft and quite useless for tools or weapons, and from the beginning was apparently used decoratively. Because of its rarity, it became symbolic of wealth and power. Copper, slightly harder, could be used for practical purposes; most of the Egyptian statues and carvings were done with copper chisels.

3. Discovery of bronze

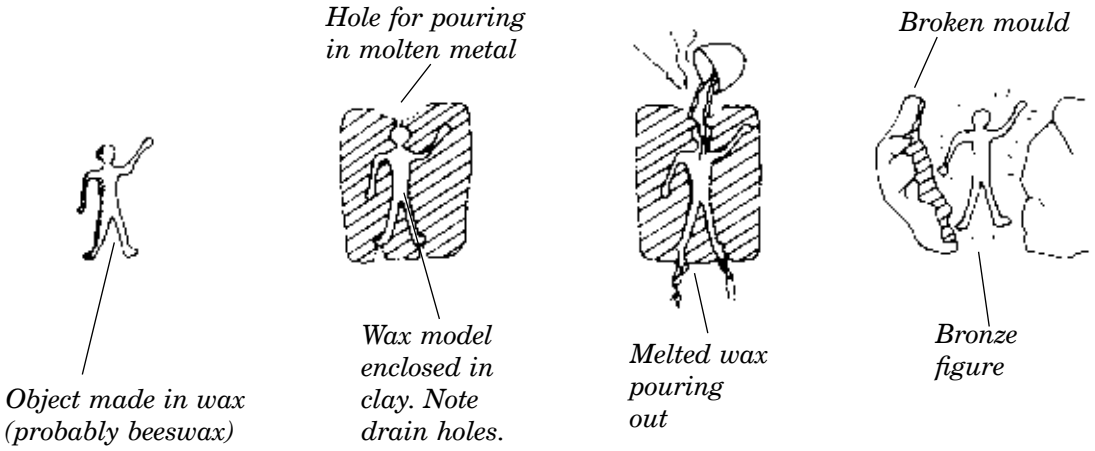
The discovery of bronze was perhaps an amazing accident because tin was extremely rare. The alloy of copper and tin was little short of astounding. Bronze is considerably harder than either of its components, and also melts at a lower (but still high) temperature, making it easier to work with.

4. Moulds

Originally hammered into shape, metal weapons were perhaps not much quicker to make than stone ones, but one suspects that moulds, once discovered, were used fairly rapidly; maybe a crucible of molten metal was accidentally dropped and the hot liquid ran into a depression on the ground (perhaps of a footprint). When it had cooled, the idea of moulding might have been born.

Moulds at first were simple shapes in stone or clay as the one from Mohanjo-daro on p.12 of the Pupil's Book shows. Fairly soon, however, two-piece moulds were being made and the molten metal was poured into the cavity. The lost wax process seems to have been developed either in China or central Asia, and with it very complex objects could be produced. The lost wax process is still used today.

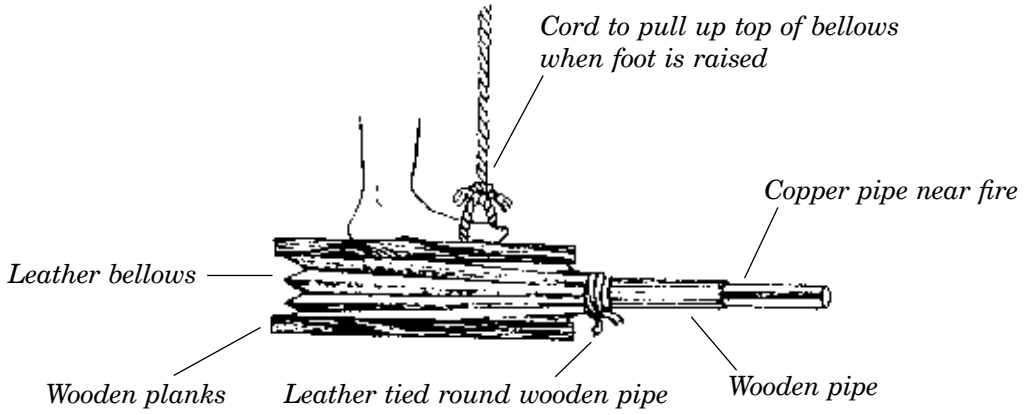
Moulding enabled metal objects to be produced rapidly and much more cheaply in terms of labour.



5. Bellows

Melting the ores required very high temperatures. At first, the charcoal fires were forced into white-hot heat by simple pipes blown by the mouth. Bellows were introduced quite early as can be seen in the Egyptian painting on p.12 of the Pupil's Book.

The bellows would be made of leather, probably a complete skin sewn up and sealed with a small space for the outlet. The painting on p.12 shows these bellows (two bellows per operator) in action. They were fastened to the ground by some method, and a flat board was placed on top. The operator stood on the board to compress one bellow while he raised the other with a cord. (All of this can be seen at the bottom of the picture.) The alternate raising and pressing motion on the board/bellows forced air through a tube (from the drawing, these seem to be of wood, ending in a metal nozzle near the fire) to raise the temperature to melting point. Notice the way the clay crucibles were lifted with the help of two sticks, and then poured into the row of moulds on the left. Immediately above the fire is probably a heap of charcoal.



6. Results

Metal tools enabled finer articles of wood, clay, and gold to be made. Although stone was used for agriculture for thousands of years in many places, the wealthy could afford saws, hoes, and ploughs (even if the last two were of wood tipped with metal) to cultivate more rapidly and efficiently. Saws and metal axes enabled land to be cleared at a faster rate. Metal weapons were obviously much more dangerous in battle, and the whole attitude to war intensified and became more violent.

7. Use of metal today

Pupils can be made to identify metal objects, no matter how small, which they may have on their persons—in pockets, parts of clothing etc.—and also in the classroom. Ask them what could be substituted for these items if metals did not exist. The manufacturing processes of plastics and most other substances also involve metal.

Answers to Workbook p.10

1. (a) Copper, gold; (b) scarce, soft, beautiful; (c) harder than gold, more plentiful than gold, makes reasonable weapons; (d) copper, tin; (e) 5,000 years ago; (f) stronger, harder, easier to make, melted more easily.
2. Many copies could be made of the same object without much trouble. Difficulty in heating the metal into liquid state; handling the very dangerous crucibles of molten metal.
3. (a) Tools were better; trees could be cleared much more easily; soil could be tilled more easily; output of land increased; more land could be cultivated.
   (b) Cooking pots of metal were much better than clay; better tools allowed better furniture to be produced; knives/spoons made cooking easier.
   (c) Easier to make ornamentation—earrings, rings, bracelets, necklaces, combs, buckles for belts.
4. (a) Caused wars as countries tried to gain control of metal mines; (b) much more dangerous wars as weapons were deadlier; (c) wider gulf between rich and poor in war because only the rich could afford armour and metal weapons.
5. Individual work.

THE FERTILE CRESCENT

14/15

Points to emphasize

1. Civilization

Ask pupils what they mean by 'civilization.' What must a society have to make it civilized? They may suggest: leaders or government; law and order (police, courts, and prisons); medical care; education; shops and markets; communications; roads and other means of transport; religious tolerance; entertainments and places for recreation (sports centres; parks) etc. Discuss these in relation to Pakistan, i.e. who organizes them, who pays for them and so on.

2. Hammurabi of Babylon

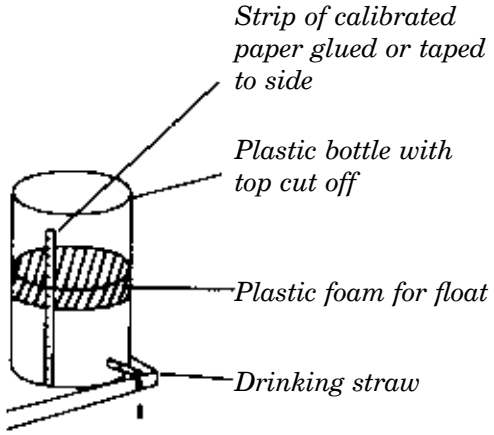
Although there is no space to deal with separate Fertile Crescent empire, Babylonia might be mentioned if only because of the Emperor Hammurabi and the world's first really comprehensive code of laws, which covered all aspects of human existence with intelligence and compassion. These laws were carved on slabs or pillars, and, like the commands of Asoka, erected in different parts of the empire. Some laws that might interest the pupils include:

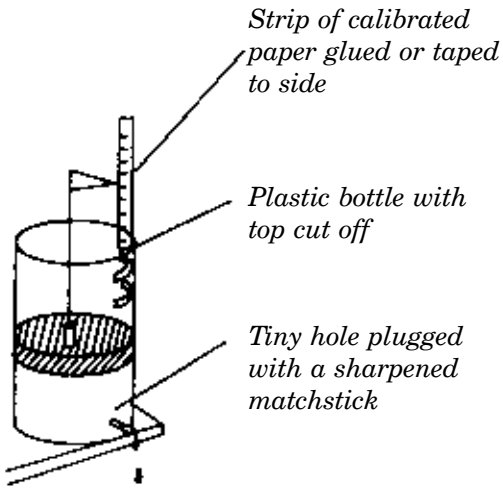
i) Houses were to be let by the year and rent paid six months in advance. Houses had to be kept in good order and tenants were responsible for the maintenance.
ii) A man could divorce his wife provided he returned her dowry. She kept the children. The man had to set aside one of his fields to support his ex-wife and children, until the children were grown up.
iii) The wages of ox-drivers, sowers, and farm workers were fixed by law, as were the rates for hiring oxen, asses and boats.
iv) A shepherd had to give a receipt for the animals he took out to graze. If any were lost through carelessness, the shepherd had to pay the owner. The master, however, was responsible for losses due to lions or other wild beasts. If the shepherd let the sheep and goats wander into fields of growing crops, he had to pay the owner four times the value of the crops lost.
v) Parents had to be honoured. If children struck their fathers, their hands were cut off. If a child cursed his/her parent, his/her tongue was cut off.

Laws were harsh and covered every aspect of society, civil and criminal. The death penalty could be imposed for theft, selling stolen goods, kidnapping, assisting slaves to escape, illegal sale of alcohol, disorderly behaviour in a tavern and causing the death of anyone through faulty engineering.

3. Water clocks

The simple water clock mentioned on p.3 of the Pupil's Book can be made here, and also a more elaborate version as shown below.





4. Gilgamesh and the Land of the Living

The legend below may be read out to the pupils. The words in brackets are authorial comments only and not part of the story.

Gilgamesh was the king of the city of Erech. One day, he saw dead bodies floating in the river and realized that he, too, would die. He became more and more depressed. He decided that he would make a name for himself so that he would be remembered after his death.

He set his heart on going to the distant Land of the Living [obviously Lebanon] to cut down its famous cedar trees. He told his faithful servant Enkidu his plan. Enkidu, who feared for the safety of his master, tried to dissuade him from undertaking such a dangerous voyage. When Enkidu realized that Gilgamesh would not change his mind, he advised him to make a sacrifice to Utu, the god of the Sun and ruler of the Land of the Living. Utu, pleased with Gilgamesh's sacrifice, took pity on him, and in order to help the king, Utu trapped the seven weather demons so that Gilgamesh could travel in safety.

After crossing seven mountains [again the significance of the number seven] Gilgamesh finally found the great cedar he wanted and cut it down with one sweep of his heavy axe. Enkidu and his other companions chopped off the branches and carefully stacked them at the foot of the mountain. Huwawa, the terrible monster who guarded the Land of the Living, was infuriated by Gilgamesh's act. He caused Gilgamesh to fall senseless to the ground. The king regained consciousness with great difficulty.

The brave Gilgamesh was not scared of Huwawa and vowed that he would not leave the Land of the Living without his great cedar. Enkidu attempted to persuade his master to return to Erech, but with no success. Gilgamesh chopped down the seven trees which blocked the way to Huwawa's home and came face to face with the monster. Under the pretence of presenting him with gifts, he cleverly slipped a ring into the monster's nose [as one would tame a rebellious ox]. Gilgamesh tied up Huwawa.

The monster prayed to Utu, the Sun god, and humbled himself before Gilgamesh, begging to be released. Gilgamesh almost freed the monster but decided against it upon the advice of the faithful Enkidu. Resentful of his interference, Huwawa insulted Enkidu. In revenge, Enkidu slashed off the monster's head and placed it in a bag. The two heroes took the head to Enkil, the king of the gods, in the hopes of pleasing him. Enkil, however, was furious and placed a curse on them. They were condemned to a life of eternal wandering in mountains and scorching deserts. [In another obscure passage, it seems that Enkil gave them seven divine rays which were meant to protect them from the wild beasts that roamed these mountains and forests.]

5. Labour-saving devices

Point out the significance of labour-saving devices like sails, pack animals, and animal-drawn carts. There is a direct line from this early beginning to the labour-saving society of today. Pupils can discuss the equipment they have in their homes and how these enable their families to dispense with certain types of manual labour. Perhaps they can talk to their grandparents or other elderly family members and ask how things were different when they were young.

Answers to Workbook pp.11–12

1. Refer to p.14 of the Pupil's Book.
2. Fertile soil from silt from annual flooding; silt is easy to cultivate with the simplest tools; there was plenty of water for irrigation; hot climate to speed growth of crops.
3. 5000 years ago. Ur. Babylon; Akkad.
4. (a) Writing; (b) sails; (c) wheels/carts; (d) ploughing with animals; (e) water clocks; (f) maths/science.
5. Temple. (N.B. In archaeology a ziggurat is a tower or stepped pyramid supporting a temple.) Gods dominated Fertile Crescent societies as they were thought to be responsible for all natural phenomena, including the all-important growth of crops.
6. Individual work.

Points to emphasize

1. Early evolution

Apart from the early *Homo pekinensis* of 1,000,000 years ago, very few remains of very early man have been found in China, although, no doubt, there was as continuous a process of evolution there as elsewhere. The sheer vastness of the country probably is the answer, and the fact that the most likely early settlements were in the valleys of the great rivers, which flooded constantly, and often changed their courses. By the time the Yang-shao people appeared, the Chinese were firm agriculturists.

2. Diet

Note that the pig was the first domesticated animal apart from dogs. Pigs have always been a vital element of the Chinese economy, as they are indeed today. The rare appearance of cattle in Chinese history may be due to the fact that about 90 percent of the Mongoloid races to which the Chinese belong are lactose intolerant—that is, after infancy they cannot tolerate milk. While it does them no harm, it merely passes straight through the digestive system, due to the absence of a certain enzyme. The Chinese, therefore, very rarely drink milk.

3. Importance of rice and silk

Rice and silk were vital elements in the Chinese economy—rice as the dominating staple food, and silk for the clothing of the wealthy. Silk was also the most important trading commodity when contact with the outside world was established.

4. The Shang peoples

The Shang peoples were particularly vicious and cruel, though probably not by their own standards. The slaughter of slaves was common in much of the ancient world, but was especially extravagant during the Shang dynasty.

5. Bronze casting

The Shang craftsmen developed the art of bronze casting to unbelievable lengths. They probably invented the lost wax process (p.13 of the Pupil's Book) so that they could make extremely complex vessels for ritual purposes.

6. War

For the rich, the Shang period was a highly sophisticated and comfortable one. War was considered a sport, at par with hunting in most other societies. Pupils might like to discuss the warriors on p.17 of the Pupil's Book.

7. Oracle bones

Tens of thousands of oracle bones exist, although, until recently, peasants unearthing them in hordes ground them up for sale to pharmacists as 'dragons' bones' for use in traditional Chinese medicine.

Answers to Workbook pp.13–14

1. Seeds/pollen grains and more bones than would have been accounted for by mere hunting are found in their middens (rubbish heaps) and sites.

2. Villages were built half-way up the valley sides to avoid the very regular floods. (Even today—as recently as 1995—disastrous floods in these same valleys have killed thousands of people.)
3. Body burned on a pyre; ashes placed in clay pots; buried at some distance from the village.
4. Domestication of sheep, oxen and horses; the cultivation of rice; silkworm production.
5. Highly inventive, but extremely cruel; had very strong religious beliefs; extremely good craftsmen; quarrelsome.
6. Writing. Questions to the 'gods'—many quite trivial—scratched by the priests on flat bones. Bone touched with red-hot copper tool which cracked it. Priests claimed the cracks could be interpreted as the answers.

7. and 8. Creative work.

THE ZHOU AND QIN DYNASTIES 18/19

Points to emphasize

1. Advances under the Zhou dynasty

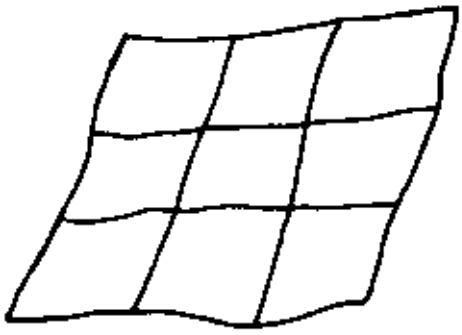
The Zhou dynasty lasted almost 1000 years (1122 BC–221). Although there were virtually constant wars, it was a period of considerable cultural advancement. Books were produced in large numbers (hand-copied, of course) therefore much is known of the period. Iron was first used, and wheat planted. The latter was particularly important to the northern half of the country, as its climate was too severe for the cultivation of rice.

2. Feudal system

As the country was too vast to be governed efficiently by the communications then existing, the feudal system was devised. This system became prevalent in most cultures of the east and west in later times. As in China, however, feudal societies arose as a response to the same kind of problems and not as a result of imitation.

The basic principle is that everyone has someone 'above' him to whom he owes duties and allegiance, and people below him from whom he expects the same. In China at the pinnacle was the emperor who held the Mandate of Heaven (i.e. the divine right to rule) as long as he did not displease those who held the real reigns of power. The emperor was supposed to be able to communicate with the gods, and in general his role was ritual and symbolic. Below him were the major nobles to whom large areas of the country were 'given' in return for their duties and military service. These in turn divided their territory into smaller units 'given' to lesser nobles on similar terms. Advisers and officials were also given land in exchange for their services. At the bottom of the feudal hierarchy were the peasants, who received the right to use the lesser nobles' land in return for providing them with food and materials, and for performing manual labour and military services.

A typical Chinese village of this period was divided into nine blocks of land, eight for eight peasant families, and the centre one for the lord. This was called the 'well-field system' (possibly because of the well used for irrigation) and is remembered by the modern Chinese character for 'well' which is 井 *(jing)*.



3. Reformers

Because of the troubles of the time (i.e. peasants never secure from attack and destruction by warring lords) a number of different political/social philosophies emerged.

Lao-tzu represents the liberal-idealist point of view, not even remotely practical today as a general principle, and perhaps not even realizable at that time. He advocated a return to a simple, basic way of life, rejecting urbanism, money, and what we would call 'the rat-race'. Daoists were told to follow the Dao, or Path, a code of moral precepts which were intended to make for personal happiness. Daoists were obsessed—as Chinese people are today—with longevity, and tried frantically and empirically to find the secret of long life. In this random 'science' they stumbled across some interesting discoveries.

Confucius was a minor bureaucrat whose teachings aimed at maintaining and strengthening the status quo. The state, he taught, should be modelled on the perfect family: parents (i.e. the emperor and nobles) should protect and guide their children (the mass of people). The children (people) should love, obey, and look up to their parents (rulers). This, he felt, would create a stable, peaceful society. Even today the family unit and the parent/child relationship that Confucius advocated play a major role in Chinese society. Confucius represents what we would call the moderate right of centre political standpoint.

Legalism represented the extreme right wing of politics or Nazism as we would now term it. Everything was subservient to maintaining the 'state' which always 'knew best'. The use of savage torture and other practices, and occasionally of blatant bribery, could be justified in terms of social and political expediency: if everyone knew their place, the state as a whole would be happy. perhaps this political theory was an early shadow of the 18th century Jeremy Bentham and his 'greatest good for the greatest number' theory of utilitarianism.

4. Influence of Emperor Qin

During the Qin dynasty, Legalism was taken to the extreme. Emperor Qin Shi Huang Di reigned only 15 years (221–206 BC) but altered the country so dramatically that many of the changes he effected are still in force today. In earlier spelling 'Qin' was 'Ch'in', hence the modern name for the country. In his short reign, he imposed one form of writing (the present one), one system of weights and measures, one system of administration and replaced feudalism with private tenure. Dress, calendar, currency, and even the length of axles on carts were standardized in an attempt to unify the vast kingdom. To prevent people from reading anything about the times before him, he destroyed all books except those on medicine, agriculture, and astronomy, and most of the scholar-authors were buried alive.

5. The Great Wall

The Great Wall had existed in fragmented parts for many years, as each state built a segment to protect its own borders. Under Qin, these were all joined to form the wall which we are familiar with today (although much of the actual structure is a little more recent).

6. The tombs at Xian

Perhaps the most exciting archaeological discovery of the century are the tombs at Xian, which include the tomb of Qin Shi Huang Di. The only tomb excavated to date is one of five; the central tomb of the emperor himself has still not been opened. The tomb shown on p.19 of the Pupil's Book contains 6000 life-size warriors; each one's head was modelled on a definite person (although the bodies and limbs were made from moulds). The clay warriors replaced the mass slaughter of servants and slaves at the death of the king, which was the practice in earlier times.

7. End of the Qin dynasty

An interesting anecdote of Shi Huang Di's death—probably accurate as the rest of the document containing it is—is that he died far from the capital. His chief advisers knew that there would be revolution among his relatives if the news got out, so the body of the emperor was placed in a heavily curtained carriage, preceded by several others. As the body went further and further south it began to decompose, so the chief advisers filled more and more carts with sweet-smelling flowers to disguise the stench.

Unfortunately his successor continued the savage policy of forced labour (like that which was required for the Great Wall and the tombs) so that there was mass starvation because fields were uncultivated. The taxes were also crushing. In 207 BC, the peasants rose and with nothing more than hoes and clubs, overthrew the Qin dynasty.

Answers to Workbook pp.15–16

1. Feudal diagram, from top: Heaven, emperor, great nobles, lesser nobles, peasants.
2. Family. Father. Children. Protect; obey and love the emperor. They returned to a simple life in the countryside, rejecting money, wealth and ambition. Through tight control. Efficiently run; everyone would be happy because they would know exactly what they could and could not do.
3. Ch'in, the state which conquered the rest of the country. (a) One language; (b) one script; (c) one system of weights and measures; (d) one legal system; (e) same dress; (f) same currency; (g) abandoned feudalism.
4. Individual work.

EGYPT AND THE NILE

20/21

Points to emphasize

1. Annual flooding

Like all early river-valley civilizations, Egypt was dependent on the Nile. The melting of the snow on the mountains to the south inundated the flood plain in July. This was so important that the Egyptian year started in this month. There were graduated stone pillars on the banks to show the depth of the water, although there were seasons when the expected flooding failed, resulting in severe droughts.

2. Importance of the Nile

The Nile, as well as providing fertile, easily-cultivated soil, gave the Egyptians a means of transportation for themselves and their goods. The whole of the actual populated part of the country was within a relatively few kilometres of the river itself. Beyond this was desert. This easy form of communication allowed the central government to control the country by sending troops and officials to all populated parts of the empire. It was essential to have a single controlling power so that the waters could not be diverted. Fish, though ritually unclean and rejected by priests, formed a large part of the diet of the ordinary people who were not concerned with the niceties of dogma. The tall papyrus reeds were made into writing material (hence 'paper'). The papyrus reeds also sheltered vast numbers of water birds like ducks, herons etc. These, too, were important as a food item, but also constituted game for the common sport of hunting which was done with a throwing stick rather like the Australian boomerang.

4. Egyptian figure drawing

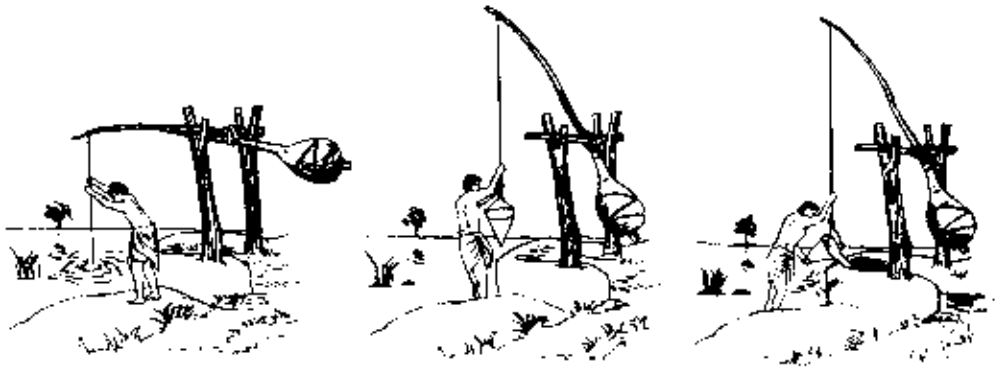
Point out the characteristic style of Egyptian drawings of the human figure: head and body from the waist down in profile, the shoulders and arms in frontal view. Perhaps the pupils can be made to draw themselves or modern scenes in this artistic 'idiom'.

4. Grave goods

Grave goods reached their peak in the Egyptian burials: chariots, boats (often models), food, drink, clothing, jewellery, furniture, game boards, weapons, and virtually everything the person would have had in life was buried along with him/her. It is from these, and from the custom of extensive wall painting in the tombs, that we know so much of Egyptian life. The paintings are often of everyday life, depicting scenes of work, play, domesticity and ritual.

5. Mechanics of the shaduf

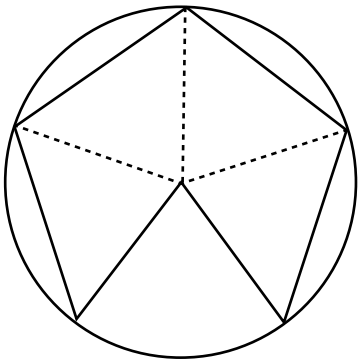
The clay/stone weight on the short end of the pole was slightly heavier than the leather bucket full of water. Because it is easier to pull down than lift up the same weight, it was simpler to pull the long arm down until the bucket dipped into the river. Then the rope was released and the bucket rose under the weight of the short arm.

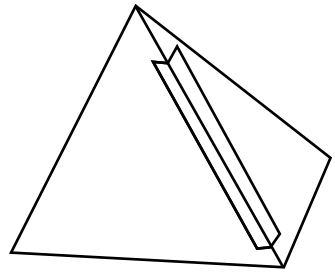


6. Model pyramid

Pupils usually like making model pyramids. Draw a circle of around 10 centimetres in diameter on thin card. Open the compass to 11 centimetres, and starting anywhere, mark off four arcs

on the circumference. Join the intersections to the centre, and to each other. Cut out the shape. Score with the back of a knife along the dotted lines as shown and fold. Colour it light brown and then fasten the joint with sellotape.





Answers to Workbook pp.17–18

1. The pyramids. 4500; tombs for the pharaohs. Cairo.
2. (a) The many writings they left describing their lives; (b) wall paintings of everyday life; (c) archaeological discoveries, especially in the tombs of nobles.
3. Refer to (5) in the teacher's notes above.
4. (a) Flooding produced rich soil; (b) irrigation; (c) afforded easy travel; (d) source of food—fish and birds; (e) source of reeds for papyrus, houses, mats, baskets; (f) facilitated unification of the country.
5. (a) The dead woman awaiting judgement; (b) Osiris, god of the underworld; (c) the woman's heart; (d) Anubis, weighing the 'soul' against the symbol for Truth (sometimes against a feather); (e) the crocodile-headed god who will eat the body if the soul is found wanting; (f) Thoth, the bird-headed god of scribes and writing, who records the judgement; (g) Isis, the queen of the underworld. Note the symbol ..... *ankh* ('Life') in her hand; (h) some of Osiris's 42 assistants; (i) Truth in the scale pan.

PYRAMIDS AND MUMMIES

22/23

Points to emphasize

1. Quarrying blocks

While the transport of the stones from the quarries to the river in flood, and from the nearest bank to the site, is reasonably explained, the actual quarrying of the blocks is less simple:

(a) Using a copper chisel and perhaps a stone as a hammer, a series of holes were hammered into the rock face.
(b) When deep enough, dry wooden plugs were firmly hammered in.
(c) Water was poured over the protruding ends of the wooden plugs, this process probably continuing for many days.
(d) The wood expanded, splitting the stone from its bed. (In the cave quarries near Cairo, rows of these holes can still be seen.)

Holes made in rock with copper chisel

Dry wooden plugs hammered into holes

Water thrown on wooden plugs for days, causing them to expand

Slab of rock breaks off

2. Mummification

This was a process which evolved very slowly. In the dry, warm sand near the surface, objects often remain quite intact without any artificial aids, but deep in the cool—and perhaps sometimes damp—atmosphere of the tomb, organic material decays fairly rapidly. The removal of the internal organs was essential, as these decayed very quickly. They were preserved in natron (a salt) in canoptic vases (urn-like receptacles), which were sometimes in the shape of the real mummy case. The pickling in natron took about 70 days, and then the body was wrapped in linen bandages coated with sweet-smelling gum. Often valuable jewels of ritual significance (scarab beetles for example) were placed in between the layers of bandages.

Answers to Workbook pp.19–20

1. They wanted to preserve them for the next life.
2. Refer to (2) in the teacher's notes above.
3. Refer to (1) in the teacher's notes above.
4. The method of taking the stones to the upper layers of the pyramids is still not actually known but it must have been done by some form of a ramp. The question is whether it was a long straight ramp (which would have been cumbersome when the upper layers were reached), or a ramp which went round and round the pyramid itself. This alternative would have required some complicated logistics.
5. The figure on the steps of Abu Simbel is approximately 8 millimetres high. The statue next to him is about 40 millimetres in height. Thus 40 ÷ 8 = 5; 5 × 180 centimetres = 900 centimetres or 9 metres.
6. Ask pupils to read out their suggestions of time capsule objects, and compile a list of those that occur most frequently.

EVERYDAY LIFE IN ANCIENT EGYPT

24/25

Points to emphasize

This spread is better treated as a discussion/oral section. Pupils can be introduced to Egyptian writing.

1. Hunting picture (Pupil's Book p.24)

A nobleman, his wife and son hunting water birds with a throwing stick. Note how the woman is drawn smaller than the man as an indication of her lower status. The son holds his father's leg, this being a symbol of kinship. The bird on the boat may be a tame fish-hunting bird. The objects on the left are stylized papyrus reeds.

2. Family reunion (Pupil's Book p.25)

There is enough material here for a whole lesson.

Discuss clothing and appearance: transparent linen clothing, similarity in men's and women's styles; the jewelled neck collars; the wigs and hair bands on all; the light cloak of the father and the leopard skin(?) of the son—a young man's symbol of masculinity, perhaps. Note earrings, make-up round the eyes, the painted toenails (women barefoot, men with sandals).

Mention the furniture, like the very modern-style chairs and footstools. The pets—the dog beneath the mother's chair, and perhaps a cat on the man's lap. The children appear to be bringing presents of vases of flower and the daughter carries a headband, probably for her mother.

Can the pupils identify any of the foods prepared for the feast? There is definitely a duck or some other water bird and figs in the bowl, although the other meats are not clear. Ask for suggestions.

It might be mentioned that the blackened eyes so characteristic of ancient Egyptians were not entirely cosmetic. The black substance consisted of kohl—a powder usually made with the poisonous substance antimony—which may have helped to keep flies away from the eyes. Egypt today still swarms with flies, and eye diseases were very common until recently.

Perhaps pupils could draw a family reunion as it might be today.

3. Hieroglyphs

Hieroglyphs were used for formal communication such as tomb and temple inscriptions. For more practical purposes a cursive form (demotic) was employed. The hieroglyph symbols were at the same time pictorial and phonetic. As there were no vowels, we are not quite sure how words were sounded. A snake could mean 'snake' in which case it was usually followed by a vertical line, or it could make the sound 'd', totally divorced from reptilian associations. Similarly the sceptre could mean simple 'sceptre' or it could represent the sound 'h'. Snake and sceptre together could be 'had', 'hed', 'hid' or 'hud' or a combination of vowel sounds not used in English. Together, they always had a meaning that was connected with light, brightness or white, to distinguish what this was. The two characters were followed by a determinative, which provided the clue.

These are some of the more common hieroglyphs with their sounds. Let the pupils write their names or other simple words in hieroglyphs. Remind them that not all of the sounds that they are familiar with are included in this list.


owl—'m'


leg—'b'

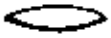

snake—'d'


chick—'w'


twist of rope—hard 'h'


holder for jars—hard 'g'


hand—'d'


mouth—'r'


viper—'f'

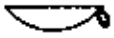

water—'n'


unknown 'ch'

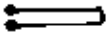

door lock 's'


reed shelter—'h'


stool—'p'


basket with handle—'k'


bread—'t'


tethering rope—'ts'

Points to emphasize

1. The Minotaur of Crete

Pupils may enjoy listening to the Greek legend of the Minotaur of Crete.

Minos was king of Crete and married a goddess named Pasiphae. Minos prayed to Poseidon, king of the sea, to send him a sign that he, Minos, was really king of Crete, in the form of a beautiful bull. [The bull theme recurs again and again in Crete.] Minos said that he would sacrifice the bull to the sea god, but when the animal came, it was so beautiful that Minos could not bear to kill it. In revenge, Poseidon made Pasiphae fall in love with the bull, transformed her into a cow and mated her with him. The offspring was a terrible monster, the Minotaur, with the head and shoulders of a bull and the body of a man. The demented creature was banished to a maze of tunnels underneath the palace called the Labyrinth, from which we get our modern word 'labyrinth'.

Minos had defeated Aegeus, king of Athens, and forced him to send seven young men and seven young women each year to be eaten by the Minotaur. Theseus, Aegeus's son, who already had a reputation for slaying evil monsters in the countryside, begged his father to let him go as one of the sacrifices, so that he could kill the monster.

After much pleading, Aegeus consented and with a sad, heart watched his son sail away, thinking that he would never see him again. He made Theseus promise before he left that if by a miracle he managed to kill the monster, he should take down the black sail of the ship—a sign of mourning—and hoist a white one instead.

Theseus arrived in Crete, and as a prince, was feasted at Minos's palace. Here he fell in love with Ariande, Minos's daughter. She said she would help him overcome the Minotaur, for no one was allowed any weapon when they were thrown into the blackness of the Labyrinth, and even if they managed somehow to kill or evade the beast, they could never find their way back to the entrance. Accordingly, Ariande smuggled Theseus a sword and a reel of thread. He claimed the right to be the first to be fed to the monster, and, with sword and thread hidden under his cloak, was thrown through the bronze door of the tunnel. Here he fastened one end of the thread, and, as he groped his way through the darkness, he unwound the yarn. In the centre of the maze he encountered the bull-man, killed it, and winding up the thread again, found his way out, where he was welcomed by the faithful Ariadne.

He fled with her and the remaining Greek youths and maidens, but rather ungenerously abandoned Ariadne when they reached the island of Naxos and sailed back home to Greece. Unfortunately, he forgot all about his father's request to hoist the white sail if he had succeeded in slaying the Minotaur. Aegeus had spent all this time on the cliff-top, watching the horizon for signs of the ship, and when it appeared, it had a black sail. Aegeus was so overcome with grief that he committed suicide by throwing himself off the cliff and into the sea. To this day, this body of water is called the Aegean Sea.

2. Greek legends

The above story might encourage pupils to read more Greek legends; Theseus himself has a whole bookful of adventures. If enough interest is aroused, the pupils may enjoy dramatizing one of the traditional myths. Alternatively, pupils can make up their own hero-stories and drawings.

3. The bull

The bull symbol, which was obviously a totem (emblem of a clan or individual), appears everywhere in Crete. Point out the stylized horns all round the roof of the palace on p.27 of the Pupil's Book. There were jugs and drinking vessels in the shape of bulls' heads, and many wall paintings of what seems to have been a religious ritual: the bull leaping. Here, young men and women ran among excited bulls, and leaping up, grasped the tips of the horns, one in each hand, and somersaulted over the animal's back to land safely behind it. Frescos of this can be found in any book on Crete or the Minoans.

Answers to Workbook p.21

1. Crete. It was not founded on a fertile river-valley, as there were no real rivers on the island.
2. (a) It provided a major source of food (the octopus was most important and this, too, appears as a decoration on vessels, walls etc.); (b) it protected the island, as it was easy to defend the coasts; (c) it allowed easy transport all over the eastern Mediterranean for traders.
3. (a) Olive oil; (b) wine; (c) pottery; (d) bronze; (e) gold and jewellery.
4. After besieging the huge walls of Troy for ten years, the Mycenaeans realized that they could never break in. They built a huge wooden horse, put a small number of men inside it, and left it outside the gates of the city. The Greeks then boarded their ships and sailed over the horizon. The Trojans were intrigued by the horse and dragged it inside the city. That night, the Greek fleet secretly returned, and the soldiers in the horse crept out. They unlocked the gates of the city and let in the main force of the Greeks.

   That is the story as told by Homer some 500 years after the event. There does seem to be some element of truth in it as it is so consistent, but the story is not totally accurate. The horse, suggest some scholars, may have been a totem. The Greeks may have entered Troy through a breach in the walls caused by a recent earthquake (common in the region) than to military tactics. But that rather spoils the story.
5. From about 1200 BC to 600 BC. The several races of Greece, the Aryan invaders, the Mycenaeans and Dorians intermixed, and the brilliant culture of the Golden Age emerged.

THE GREEK CITY STATES

28/29

Points to emphasize

1. The sea

Emphasize the difficulty of overland travel in Greece (even today). The sea offered a simple way of getting from one part of the country to another. The sailing tradition still exists, and Greece, a relatively small country (with a population of 10 million), has the third largest shipping fleet in the world (22 million tonnes) as compared to Japan (32 million tonnes) and the former USSR (25 million tonnes). As compared to these nations, Pakistan has a shipping fleet of 366,000 tonnes.

2. Athens and Sparta

Compare these two extreme city states, Athens, with its relaxed culture, and Sparta with its savage militarism geared to impersonal fighting. Spartan women are said to have wept with

humiliation and shame if their husbands came home from war alive: dying in battle was considered the ultimate honour. Discuss with pupils whether such a system could exist today. Can they find anything praiseworthy in the total disregard of the individual and the glorification of the state? Perhaps one can usefully compare this to the Legalism of ancient China.

3. Hero-legends

Any of the Greek hero-legends are worth retelling and collections are normally available at most libraries. Perseus and Hercules are always favourites with pupils, as they are the prototypes of Superman. The attempt to explain natural phenomena by legends of the gods is also interesting; one can quote the Persephone-Hades-Demeter story to explain the summer and winter cycle.

Answers to Workbook pp.22–23

1. A small town which eventually evolved into a separate political unit with its own government and laws. It was difficult to have one common government as the overland communications system was poor. Athens; Sparta; Thebes.
2. All shared a common language, Greek; their own governments and laws. Athens; Sparta.
3. Refer to pp. 28 and 29 of the Pupil's Book.
4. Individual work.
5. The language roots exercise can be done orally and other prefixes like the following can be added: *bio* (life), *therm* (heat), *quad* (four) and so on. Try to get the pupils to show how the prefix is significant in the meaning of the word; eg. *zoo* (animal); zoo, a place where animals are kept; zoology, the science of animals. *Mono* (one); monocle, a 'spectacle' for one eye; monoplane, an aeroplane with one set of wings etc.
   auto — automatic, automobile, autograph, automaton, autobiography.
   micro — microscope, microscopic, micrometer, microbe, microchip, microphone.
   tri — triangle, trio, tripod, triple, triplets.
   photo — photograph, photocopy, photoelectric, photogenic.
   tele — telescope, telephone, television, telemetry, telepathy, telegram.
   geo — geography, geometry, geophysics, geology.

GREEK RELIGION AND GOVERNMENT

30/31

Points to emphasize

1. Oracles

The Greek gods were supposed to live on Mount Olympus, but they made very frequent visits to the countryside—usually on some not particularly divine purpose. The scores of children they fathered with mortals became demi-gods. Unlike other religions, especially the monotheistic ones such as Islam, Christianity, and Judaism, they had no particular moral/ethical code. They were a fairly corrupt lot, greedy, adulterous, quarrelsome, prone to theft, and, in short, thoroughly bad examples to humanity. To give them their due, they never set down a code of conduct but only expected humans to obey their whimsical commands. It is not surprising that in general people had little strong attachment to them, except as a hope that they existed and would grant favours in return for the right sacrifices, rituals, and other activities.

Forecasting the future was one aspect of the supernatural in which the Greeks did believe. The gods were thought to convey what was going to happen through oracles located in special

temples. A priest, or, more often, a priestess, was the vehicle through which the god's message was made known. The most famous of these was the oracle of Apollo at Delphi. Here, the supplicant, having undergone ritual purification, performed the appropriate sacrifice—and, of course, having paid the right fee—asked the priestess in her sanctuary (perhaps a cave) a question. The oracle then furnished the supplicant with a response from the gods. It is now thought that the priestess was under the influence of some kind of drug, possibly some natural gas that exuded from the ground there, or from certain leaves that were chewed to induce a trance-like state.

Another type of oracle was called 'incubation'. Here (after the rituals and fees) the supplicant slept in the sanctuary of the god, who was supposed to appear in his or her dreams.

It would be interesting to find out just how sincere people were in their belief in the gods, oracles, and other supernatural beings. We are looking only in the light of our own cultures, societies, and beliefs. How might people in 2000 years' time regard us? Perhaps pupils could discuss this.

2. The legend of Perseus and the Gorgon

Again it might be worth looking through some books of Greek legends in order to find stories of how the gods were felt to interfere with the doing of men. We have already seen Theseus and the Minotaur; there are plenty of other stories about him, as well as of Hercules and Perseus. The tale of Perseus and the Gorgon is usually popular amongst children:

Perseus's mother, Danae, was locked in a bronze prison by her father who had been told by the oracle that her son would eventually kill him. Zeus came to Danae as a shower of gold in her prison and from the union, Perseus was born. Danae's father shut mother and child in a large box and threw them into the sea. After a terrible journey, they were washed up on an island and were rescued.

Perseus grew up into the traditional handsome and strong young man. Polydectes, the ruler of the island, sent him off to capture the head of Medusa a gorgon or monster, a woman who had poisonous snakes for hair and boars' tusks for teeth. Her appearance was so terrible that she turned people to stone when they saw her.

As Perseus himself was a demi-god, the gods of Mount Olympus armed him for the encounter. Hermes, messenger of the gods, gave Perseus a pair of winged sandals which enabled him to fly over the seas to the island where Medusa and her two sisters lived, and Athena gave him a helmet of invisibility. He also received from the gods a highly polished shield. With his sandals and his helmet of invisibility, he was able to approach the Gorgons whilst looking at their reflection in his shield. He hacked off Medusa's head, put it in a leather sack and flew back to his home. Here he found Polydectes making unwanted advances at his mother. At a great feast at the palace, Perseus stalked in, whipped the head out of the bag and turned the king and all his bad associates to stone. As for the oracle's prophesy, it came true, for taking part in a discus-throwing competition, Perseus, as becomes a demi-god, threw the discus far beyond anyone else and accidentally hit his grandfather on the head, killing him.

3. Origins of Spartan government

The savage regime in Sparta was said to have been devised by a king, Lycurgus, in the 9th century BC. Historians are still not sure whether he was in fact a real person or merely a semi-mythical hero. His laws may have simply represented the tribal customs of the time.

Answers to Workbook pp.24–25

1. (a) Zeus; (b) Hera; (c) Ares; (d) Artemis; (e) Apollo; (f) Artemis; (g) Hades.
2. Creative work.
3. Rule by the people (*demos* = people, *cracy* = rule).
   All free adult males could meet at the Assembly, held 40 times a year. Anyone could raise an issue or propose new laws. The Assembly chose a committee of 50 men who carried out the laws. Judges were elected to see to the day-to-day running of the city. A new Council was elected every five weeks and a new chairman every day to prevent any one person or group from becoming too powerful.
4. Women and slaves who formed, together, three-quarters of the population were excluded; too many safeguards to prevent misuse of power probably led to inefficiency.
5. Dictatorship.
6. It should be interesting to see what materializes—I suspect the banning of history lessons will be one of the proposed laws!

THE DARKER SIDE OF ATHENS

32/33

Points to emphasize

The contrast between the brilliant cultural and intellectual life of Athens and the grim domestic side seems to us incomprehensible. In the personal sphere, the Athenians were still very primitive and had relatively little interest in material things. In the 4th century BC this did, however, begin to change as the influence of the Persian world led to the introduction of more luxuries. But for much of the Golden Age, the Greeks were simple—even abstemious—in their living conditions, clothing, food etc. Even the richest homes were extremely bare by our standards; the sleeping rooms contained a bed and little else; the main living-rooms (for men) were furnished with couches, low tables, and stools. Floors were mosaic, but much cruder than the later Roman ones.

1. Clothing

While the Greeks seem to have been little interested in clothing, hair was important. Women had elaborate styles, and men smartly shaped beards.

2. Food

The Greeks were very moderate in their eating habits, unlike some of the later Romans. They had no separate kitchens until about the 4th century BC, and cooked on simple clay stoves with charcoal. Bread, cooked on the hot stone hearth under a clay bowl, was their principal food, with various flavourings—herbs of all kinds grow profusely on all the Greek hillsides. Garlic was a great favourite but as the country became more sophisticated, it was generally used only by the poor and rough peasants.

Breakfast was normally bread dipped in diluted wine, lunch a very light snack, and the late afternoon meal—which steadily became later and later – the main one of the day. Greek men adopted the oriental way of reclining on couches, propped on the left elbow, for meals. Generally two men reclined round a small, low table, eating with their fingers, or using bread and spoons for meats and vegetables. The bread was thrown on the floor to be eaten by the family dogs or chicken.

The first course included meat, fish, vegetables, beans, peas, lentils etc. The second course consisted of fruit, such as figs, grapes and pears, nuts and honey cakes. After this began the serious drinking. At a dinner for friends, a master of ceremonies was appointed who decreed what ratio the wine should be diluted in, and then the three formal toasts began: one to Zeus, king of the gods, one to the Greek heroes, and one to the protectors of the home. The master of ceremonies then nominated toasts ad lib. This was all accompanied by music on the lyre or double flute, played by ladies.

When sufficiently uninhibited, the men began to play *cottabus*. The master of ceremonies placed a bowl somewhere on the floor and the diners tried to throw the dregs of their wine into this. Sometimes he would point out a mark in the ceiling, or on the wall, and this became the target for the wine.

The wine was stored in clay jars which were smeared inside with resin from pine trees to make them watertight. This added a strange flavour to the wine and even today the most popular wine (with Greeks, if not anyone else) is called retsina because it is flavoured with pine resin. Greek food today remains much the same, simple fare consisting largely of fish and vegetables.

3. Women's lot

In a play by Sophocles, one character says, 'We women are nothing. Happy enough in childhood, without a care, but when we arrive at maidenhood, driven away from our homes, sold as merchandise, compelled to marry and say "All is well".' Elsewhere, another character states that 'the two best days of a woman's life are when someone marries her, and when he carries her dead body to the grave.'

Plato (in the *Republic*) argued for the fair treatment of women. If there is no separation of functions based on gender among other animals, he reasoned, why have humans created these distinctions? If dogs hunt together, he asked, why not human beings? He advocated the same education for men and women—bearing in mind the physical limitations of each. But few listened to him.

Despite this, however, there seem to have been very happy family relationships in early Greece, and even some complaints from men who accused their wives of ill-treating *them*: 'Poor men. We sold away our freedom of speech and comfort and lead the lives of slaves with our wives. We're not free . . . Wives . . . control what doesn't belong to them and neglect what they should control. They break their promises. When there's nothing wrong, they say they're sick every time . . .'

While women were undoubtedly very badly treated, some—probably all single—became great poets, doctors and traders of all kinds.

Answers to Workbook p.26

1. Building, art (statues), government libraries, theatres, books, music, schools, gymnasia, sports, medical treatment.
   Filthy streets, refuse, abandoned babies, slavery, harsh treatment of women, poor homes of ordinary people, bad sanitation and water supply.
2. (a) No rights; (b) confined to rooms at the back of the house after marriage; (c) married in early teens at father's command; (d) husbands could divorce and marry their wives to anyone else; (e) widows could be forced by nearest male relative to marry someone else.

3. and 4. Imaginative reconstruction from text.

Points to emphasize

1. Greek theories

It is a reflection of the brilliance of the Greeks that so much of their science, particularly in the fields of mathematics, astronomy, physics, and geography, had to be purely theoretical because the equipment and measuring devices just did not exist to substantiate their hypotheses. Perhaps most remarkable was the theory that everything was made up of minute particles; the Greek word for this was *atomos*. The possibility that atoms themselves could be subdivided into the particles electrons and nucleii was of course beyond them. Their atomic theory proposed that substances could be reduced smaller and smaller until one came to the tiniest indivisible 'ball' of the substance.

The concept of a spherical Earth, with a reasonably close approximation of its diameter, was another astounding piece of reasoning. Astronomical theory was partly based on observation and partly on deduction. It seems surprising that they did not realize that the Sun, and not the Earth, was the centre of the solar system.

Make sure that pupils understand that Pythagoras's theorem (the square on the hypotenuse is equal to the sum of the squares on the other two sides) applies only in right-angled triangles.

2. Medicine

The most important science at the time was medicine. Herbal medicines were worked out by trial and error. They also advocated what seem to us common sense attitudes of examination and questioning of patients. They explored the psychological aspects of health, two thousand years ahead of their time, with the idea that music and drama helped to relieve some mental problems. Tragedy, in particular, was recommended for mentally distressed people; the Greek word *catharsis* means a 'purging of the mind'. Certainly in the west, if not in the east, one still hears people telling those who are upset, 'Go on . . . Have a good cry and you will feel better.' In an age when manual labour was normally considered an unfortunate economic necessity, and when the ideal was to live a life of luxurious indolence, the suggestion that exercise, fresh air and good regular food were vital to health was a novelty.

Greek medical ideas were eagerly adopted by the Arabs, who added to them. Later, these ideas were reintroduced to the west, either via the Muslim Moors of Spain, or directly through Arab medical manuscripts.

3. Engineering

Despite their brilliance in architecture, the Greeks were not great engineers. Engineering was considered an artisan's job, not a serious intellectual's. Many of the inventions of the time were peripheral—though the Archimedian screw (p.35 of the Pupil's Book) was invaluable in raising water and is still widely used for this and other applications today. Pupils might be amused by the steam turbine invented by Hero of Alexandria. Although it spun round satisfactorily enough, it did not have enough power to be harnessed to any practical purpose. Perhaps pupils might like to 'invent' crazy machines like the temple door opener (p.35 of the Pupil's Book). Perhaps they could design a machine for getting lazy people out of bed, or for saving the effort of feeding oneself with cutlery.

Answers to Workbook p.27

1. Area of square **a** = 25 square centimetres; **a** = 5 centimetres; diameter of circle = 9 centimetres (28.26 ÷ 3.14).
2. Spotty patient—probably herbal medicine. Weary patient (obviously a teacher)—exercise, good food, fresh air. Depressed patient—catharsis in the theatre or through music.
3. Priest offers prayers, then presses the tap **c** with his foot. Water flows from the hidden tank **a**, along hidden pipe **b** into tank **d** under the floor. As it flows into this, it forces air along pipe **e** built inside the body of the goddess, and through the whistle **f** in the throat of the statue.

GREEK INFLUENCE IN TODAY'S WORLD

36/37

Points to emphasize

1. Olympic games

(a) The Greeks believed that the body was beautiful, and only barbarians were ashamed of showing it—hence athletes participated in the nude in the Olympic games.

(b) The boxing matches were, for Greece which was a relatively kind nation, somewhat brutal. The fighters wore leather thongs with protruding metal studs round their fists to increase the damage inflicted on the other party.

(c) The long jump is a puzzle. The athletes carried a weight with a handle in each hand as they ran up to the jump. Evidence of vase paintings is unclear as to what happened in the actual jump: some people believe they threw the weights *backwards* to get a kind of rocket effect, while others believe that they swung the arms *forward* to get a pull. Science tells us that by the laws of action and reaction, both would in practice *shorten* the jump.

(d) The javelin (spear) had a piece of thread wrapped a number of times round the shaft. The other end of the thread was fastened to the thrower's finger. When he hurled the javelin, the thread unwound, giving a spinning motion to it which increased distance and accuracy. This was a genuine advantage.

(e) The games lasted for five days. The first was devoted to sacrifices and the second to chariot races, horse-races, and the pentathlon. The boys' events were held on the third day and the men's competitions on the fourth. The last day was again devoted to sacrifices, culminating in a banquet for the winners.

2. Theatre

At the back of the stage (which was of course open-air) was a high wall representing the classical facade of a house. There were three doors: a large one in the centre, and two smaller ones on either side. There were two short side walls projecting from the back, each of which also had a door in it. All of these were significant in helping to identify who or what the actors represented. Only gods and kings made exits and entrances through the centre door; slaves and servants always used one of the outer ones, and ordinary citizens the other. One of the wing doors was understood to lead to the marketplace or city, whereas the other was known to lead indoors.

Only three actors were on the stage at any one time, and the chorus below them on the stone/earth circle (called the orchestra) spoke or chanted events which could not be enacted on stage.

Because the open-air auditorium was so vast, people far away would have had difficulty in seeing the action on stage. As a result, the identity of the characters had to be marked in other ways:

(i) different coloured robes were used: white for an old man; multicoloured for a youth; yellow for women of uncertain morals; red for the poor; purple for the rich; gold for the gods;
(ii) gods and kings wore shoes with high platform soles so that they were taller than the others;
(iii) As features would not be discernible when some people might be 50 to 60 metres from the stage, masks were worn—broad smiles for comic characters, deeply turned down mouths for tragic. These are the emblems of the theatre today.

3. Language

Two bits of practical work which might be useful for a spare moment:

1. Pupils can transliterate their names, addresses etc. into Greek characters.
2. By studying Greek language roots, they can be encouraged to improve their vocabulary. eg. *mega*—big, large; 'megaphone,' an instrument for making sounds larger. Others are *micros*—small; *phonos*—sound; *graphos*—to write or draw; *autos*—by itself; *psyche*—mind; *polis*—city; *biblos*—book; *octo*—eight; *pneuma*—lungs, breath, wind; *thermos*—hot.

Answers to Workbook pp.28–29

1. In transliterating into Greek characters there may be some letters that do not fit exactly—pupils will have to take the nearest sound.
2. The first lot is fairly obvious: centre, central; pathos, sympathy, pathetic; scheme, schematic; chronology, chronometer. The second group might be more difficult; asteroid, astronaut, asterisk (the star-shaped printer's mark); hippopotamus (*potamos* = river, so river-horse); electricity, electron, electronics (the first electricity was made by rubbing amber with a silk cloth); pneumonia (*pneuma* could also mean air and wind, hence pneumatic, i.e. driven by air).
3. Creative work.
4. (a) Seats for the spectators; (b) members of the orchestra who chanted a description of events that could not be presented on stage; (c) the stage, where the action took place.
5. (a) Tragedy; (b) comedy. (a) Serious/sad events usually of gods, kings, heroes; (b) light-hearted events, largely of ordinary people, often poking fun at government, people in high positions and general human failings.
6. The modern Olympic games are held, as the original ones, every four years. The location is changed every time, and the selection is made by the Olympic Committee and results in much bitterness and pressure. One notable difference is that the modern Olympic games include winter sports like skating, skiing, ice hockey, sleighing events etc. which are held in a different location in the winter preceding the main games.

THE PERSIAN WARS AND ALEXANDER THE GREAT 38/39

Points to emphasize

1. The Battle of Marathon

At the Battle of Marathon, the Greeks managed to defeat the Persians in a pitched battle for the first time. The account of Pheidippides running more than 200 kilometres in two days to

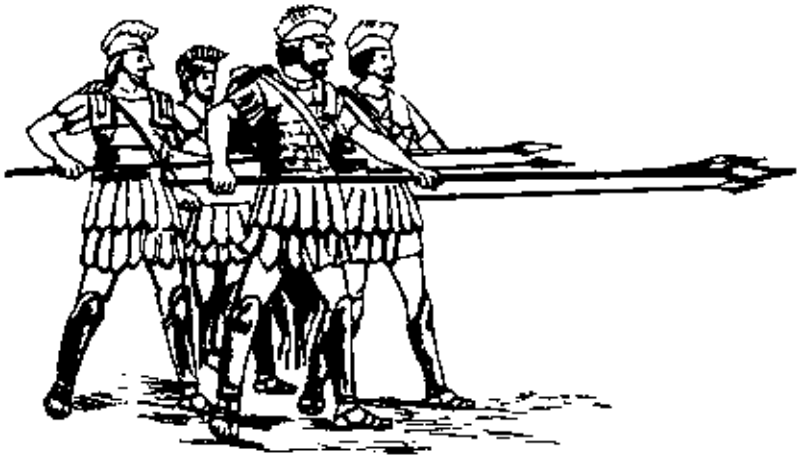
try to get Spartan help is probably authentic as it occurs in a contemporary source (Herodotus). His later run to Athens does not appear in contemporary documents until sometimes later, though it may still be historically correct.

2. The Battle of Thermopylae

The name Thermopylae is made up of the Greek words *therm* (hot) and *pylae* (gates). Today the sea has receded, so the beach between the foot of the mountains and the sea is much wider. (Note that there is virtually no tide in the Mediterranean Sea—which only rises by a few centimetres—so that there could be no low tide to make a wider passage.) The Greek army under the command of King Leonidas of Sparta chose this narrow passage as a natural defensive position. They were outflanked only when a traitor showed the Persians a path through the mountains which enabled them to get at the rear of the Greeks. Leonidas sent the bulk of the Greek army back towards Athens, retaining only 300 Spartans and about 1000 other troops (Boetians). The whole lot, caught in a pincer movement, were killed. The famous Greek couplet written at the time for the memorial reads: 'Stranger, go and tell the Lacedaemonians [Spartans] that we lie here in obedience to their laws'.

3. The phalanx

One of the greatest contributions to the success of Alexander's armies was the phalanx. This military manoeuvre consisted of infantry men drawn up in unbroken ranks of 8 (later 12) deep. They were equipped with lances 5.5. metres long. These were held at the butt by the right hand and about 1.25 metres from the butt by the left. They all pointed forwards and presented an unbroken wall of spear heads to the approaching enemy. The first ranks of spears were about 4.25 metres ahead while those of the eighth rank just protruded in front of the first. This was almost impregnable against horses, and when the phalanx charged, it was terryfying.



Answers to Workbook pp.30–31

1. Refer to p.38 of the Pupil's Book.
2. The Greek army, retreating in the face of a much larger Persian force, entered the steep-sided valley and climbed the slopes. When the Persians followed, they were attacked from above, and when they tried to escape they became trapped in the narrow valley.

3. The Greeks, under Spartan leadership, defended the narrow 'pass' between the mountains and the sea. The Persians were unable to break through the wall of spears of the phalanx for two days. Then a traitor showed the Persians a goat track through the mountains, which enabled a part of their army to attack the Greeks in the rear. The delay allowed the Athenians to retreat to relative safety before the Persians broke through.
4. (a) Defeated peoples kept their own laws, customs, and religion; (b) he ordered his men to marry local women; (c) he made Greek art, architecture, and culture popular in the countries he conquered; (d) he sent information regarding foreign discoveries in medicine, mathematics etc. back to Greece. (e) he took foreign soldiers into his army; (f) he insisted that people bow down before him and considered himself a god.

ROME AND ITS EMPIRE

40/41

Points to emphasize

1. The founding of Rome

The truth of the founding of Rome is much more prosaic than the traditional myth. Romulus seems to have been a leader of a local tribe which gradually dominated the other tribes in the region. He, however, soon disappears from history; some people of the time believed that he vanished in a thunderstorm, but there were also rumours of his being murdered by his councillors. Six kings followed, until they were expelled in 510 BC, in a struggle for power between the monarch and the patrician families. The republic, despite civil wars for power, lasted almost 500 years until Octavius was given the title of Augustus in 27 BC. He was then, in effect, emperor.

2. The wolf symbol

The wolf, which figures so much in Roman legend and fable, was probably a totem and may have been the badge of one of the major tribes.

3. The Carthaginians

Carthage was Rome's most formidable enemy. The Carthaginians were Phoenicians from the eastern end of the Mediterranean (roughly where Syria is now). They were a maritime power and were the greatest traders of the ancient world. Their ships reached Britain, where they traded for tin, and to the coast of equatorial Africa.

Their army was made up largely of mercenaries from all over north Africa, Spain, and the Mediterranean islands. The greatest Carthaginian exploit was Hannibal's invasion of Italy from Spain, via southern France and the Alps, a journey considered impossible in winter with such a vast army and war elephants (something Hannibal may have borrowed from India). Tens of thousands of men died on the journey, as well as many of the elephants, and their bones are still found buried in northern Italy.

The Carthaginians were apparently not a very likeable people. Plutarch (not entirely an unbiased recorder) says that they were 'sour and morose, servile to their rulers, lacking fortitude in danger, ungoverned in anger, obstinate and without elegance or civilized attitudes . . .' They do seem to have had little culture when compared to the Greeks, and, later, the Romans: their religion was a wild mixture of the more barbarous elements of oriental, north African, and Greek beliefs. Human sacrifices seem still to have been practised.

4. *Pax Romana*

At its peak, the Roman empire covered an area (including sea) of almost 11 million square kilometres, considerably larger than the subcontinent before partition. There are parallels between the Roman and later British empires: there was relative peace—though there were rebellions from time to time in the more remote provinces; culture, laws, practices, and patterns of life were widespread across the empire; there was a considerable flow of trade—the great majority in favour of the ruling power; Latin was the *lingua franca* of the Roman empire, as English was of the British.

5. Latin exercise

There are far more Latin words embedded in English than Greek ones. Perhaps a similar language exercise might be tried. Some of the commonest roots are: *magna* (large); *pes/ped* (foot); *inter* (between); *octo* (eight); *dec* (ten); *sub* (under); *circum* (all round); *semi* (half); *tri* (three); *umbra* (shade, shadow); *manus* (hand); *porto* (carry); *barba* (beard); *lavo* (wash); *visum* (seen).

Answers to Workbook pp.32–36

1. Refer to p.40 of the Pupil's Book.
2. 750 BC; several villages joined together and built a defensive wall round their territory. 510 BC; republic. *Res publican*; that which belongs to the people or public.
3. Italy; Carthaginians; Punic. Hannibal. Crossing the Alps in midwinter with a huge army, including hundreds of elephants.
4. Greek; helped the Carthaginians. Map as in p.40 of the Pupil's Book.
5. *Pax Romana*. (a) General peace; (b) good communications by road and sea, facilitating trade; (c) water supplies; (d) establishment of institutions like the police, markets, schools; (e) the spread of religion in larger communities throughout the empire; (f) Latin as the language of the educated, facilitating travel and trade; (g) standard Roman laws, though some local laws were permitted; (h) building of cities with Roman facilities like baths, law courts, theatres, arenas, and shops.

THE ROMANS AT WAR

42/43

Points to emphasize

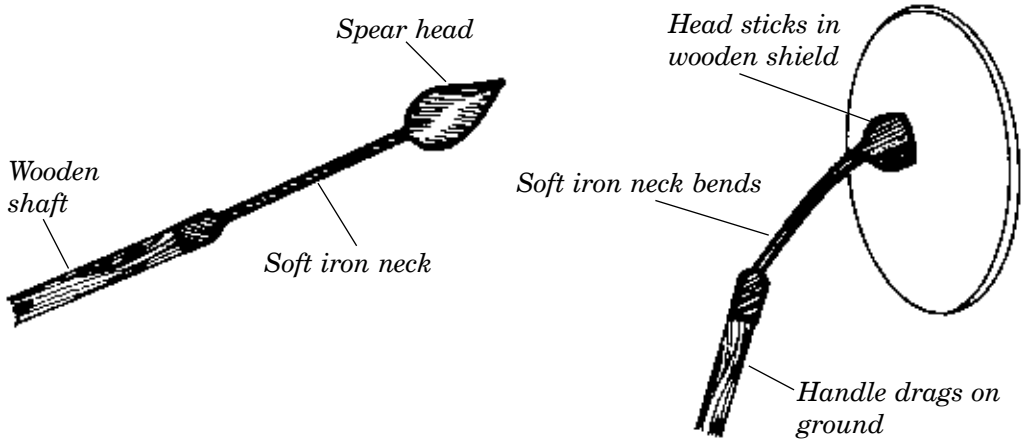
1. Roman armour

To give an amusing idea of the effectiveness of Roman armour, ask for a volunteer, and arm yourself with a metre ruler. Ask pupils, 'If I am armed with a sword, and want to kill this person, where would I strike to be most quick and effective?' Use the ruler to indicate parts of the body, and then show how the Roman armour protected these vital areas:

Part of body	Details	Protection
Head	Most vulnerable and easiest to hit with a fatal blow	Helmet
Shoulders	A violent downward slash will sever arm or kill	Flexible bronze bands over shoulder
Chest	A stab is easy and fatal	Flexible bronze bands round chest
Upper legs	Wild slash might disable or kill	Hardened leather skirt with weights will break sword blow

2. Battle techniques

It might interest pupils to know that the Roman throwing spear had a long, flexible iron neck between the wooden handle and the hardened head. If the spear stuck in an enemy shield (or body), it would bend under the weight and resist any attempts to remove it. With the point embedded in the wood of the shield, and the handle trailing on the ground, the enemy was considerably hindered.



The mode of attack most often employed by the century (a company in the Roman army) was to remain motionless until the enemy (usually in wild undisciplined mobs) came relatively close. Then the front ranks of the century would hurl their spears and step back. The second row would do the same, and then the third. The first row would then hurl its second spear, and the remaining two likewise. Finally the century would re-form in its original order and charge with the short stabbing swords which were the normal hand-to-hand weapon. The volley of spears often broke the advancing enemy.

3. Training

Discipline and constant training was the secret of the Roman army's success. Often most of the initial fighting was done by auxiliaries who were the soldiers of allies or conquered countries. The highly-trained legionary was too valuable to squander when less formidable troops could

be used. Legionaries were often kept in reserve and were only sent into battle if the circumstances warranted. The auxiliaries provided the Romans with specialist skills that their own soldiers could not supply: the archers came from the eastern Mediterranean, the stone-slingers from the Balearic Islands in the Mediterranean, the charioteers (only occasionally used) from Britain and the cavalry from Spain.

4. Military rations

Soldiers were paid at the same rate as ordinary workers but had to purchase their own weapons from military stores. Note the importance of salt, and how the word *salarium* has come down to us as 'salary'. The soldiers carried their own basic food supplies, but these were more or less 'iron rations'. They stole from the countryside whenever possible.

5. Sea battles

There are few reports of major sea battles. After the Punic Wars, there were few empires with naval capacity. The last significant battle was at Actium, off the coast of Greece, when in the Civil War after the death of Julius Caesar, Octavius faced the combined fleets of Antony and Cleopatra. Here, when Antony's heavier ships seemed about to achieve victory, the sixty Egyptian vessels of Cleopatra fled homewards towards Egypt.

Answer to Workbook pp.37–38

1. (a) Legionary; (b) spear, sword; (c) worked full time; (d) legions; (e) a group of about 100 Roman soldiers.
2. They should have drawn: helmet; armour; leather strip skirt; sandals; shield; spears (2); sword; posts (2); spade; cooking pot; blanket; bowl and spoon; bag of personal belongings.
3. (a) Tortoise.
   (b) It presented a hard shell for defence like a tortoise.
   (c) To approach the walls of enemy forts/cities.
   (d) They could approach the walls without being killed by spears, stones etc.
   (e) By driving a horse and cart across it.
4. Creative work.
5. The long sling arm was in a thick bundle of twisted leather (no rubber, of course). The twisting was tightened so that at rest the long pole was vertical. This was hauled down to a horizontal position by the windlass, and the stone fastened in a leather sling. The rope was released (there was a simple mechanism for this) and the arm shot upwards under the tension of the leather bands. When the pole hit the padded stop at the top, the stone shot forwards towards its target. The catapult was used for hurling rocks against enemy defences, especially at walls or stockades.

GOVERNMENT AND RELIGION IN ROME

44/45

Points to emphasize

1. Censors

Censors were magistrates elected for 18 months every five years to (a) hold a census; (b) review the lists of those suitable for senatorial office; and (c) check public morals (judging by the state of Rome they do not seem to have been very effective). It was an important office in the Republic, but vanished under the Empire when the emperor appointed officials to do the job.

2. Slaves

Slaves were prisoners of war or sometimes convicted criminals (especially debtors). The conquest of an empire brought a flood of slaves from the defeated peoples so that most free families could afford at least one slave. Rich households would have had hundreds, while on vast estates there could be thousands. Some slaves could rise to positions of considerable importance as professionals—builders, architects, teachers, doctors. They still suffered under the total lack of freedom but were often respected by everyone.

3. Manumission

It was the practice in Rome, unlike in Athens, for slaves to be manumitted, i.e. freed. A slave could save earnings from tips, a little private trading or fees from professional services and eventually buy his freedom. It was also a practice to free slaves in one's will, although during Augustus's reign, the number was limited to 100 slaves at a time. A manumitted slave became a Roman freeman with only minor restrictions. A few reached positions of wealth, but most became small tradesmen and shopkeepers.

4. Spartacus (died 71 BC)

The harsh conditions of slavery often led to revolts, the most famous of which was under the slave gladiator, Spartacus. He escaped from custody with some 70 followers, mainly Celts, Germans, and Thracians, and at the peak of his revolt, had an army of 90,000 runaway slaves. They won some notable victories over the Roman armies and roamed the countryside for three years before they were destroyed by a combined force of six legions.

5. Hercules and the Hydra

The Hydra was a gigantic water snake which had many violently poisonous heads. If one of these heads was cut off, two or three more grew in its place instantly. It was so deadly that even its breath killed those who approached it. Hercules was despatched to kill this beast through the spite of Juno, queen of the gods. To make the task more difficult, she sent a huge poisonous crab to help the Hydra. Hercules felt that as the Hydra had an assistant, he deserved one, too, and his charioteer, Iolaus, came with him. Hercules forced the Hydra from its lair with flaming arrows and then began to hack off its heads. This is where Iolaus proved useful: he carried a flaming torch, and as each head was severed, he seared the neck so that new heads could not grow. The last head was immortal, but when it was hacked off and seared, Hercules buried it beneath a massive rock from which it could not escape. He dipped his arrows in the blood of the Hydra, which ensured that any wounds made by them would never heal. The crab he crushed beneath his feet, and the gods transported it to the sky, where it became the constellation of Cancer the Crab.

Answers to Workbook pp.39–40

1. Timeline: colour the different periods and mark with arrows the specific dates of each event. Refer to pp. 44 and 45 of the Pupil's Book.
2. Patricians: the old noble families (about 50 clans known). They were wealthy and held all the most important offices of state, including positions in the Senate, the army and the law. No one could become a patrician unless born into one of the clans.
   Knights: the second rank. They had to possess a certain (very large) fortune and were considerably powerful. Many were members of the Senate. They formed the cavalry.

Plebians: the ordinary free people of Rome. They could be anything from beggars to very rich merchants.
Slaves: they were the possessions of their masters and had no rights. They could even be killed for no reason if their master so wished.

3. (a) Jupiter (Jove); (b) Juno; (c) Diana; (d) Mars; (e) Neptune.
   (a) Apollo; (b) Ceres; (c) Pluto; (d) Aeolus; (e) Minerva.
4. (a) By examining the intestines of sacrificed animals (especially the liver); (b) by watching the way the temple chicken pecked at scattered corn; (c) by watching the way birds flew overhead.
5. Creative work.

ROMAN BUILDING

46/47

Points to emphasize

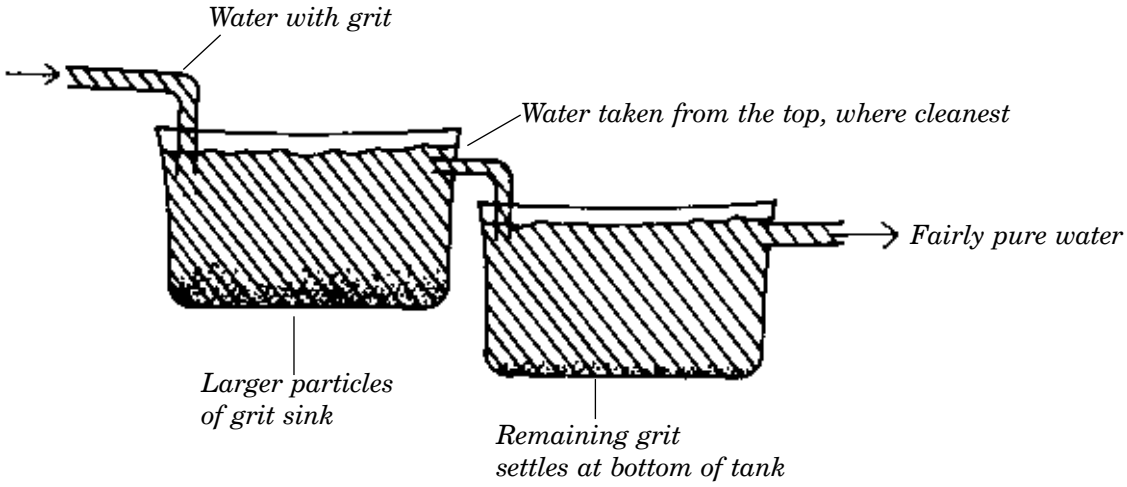
1. Construction of roads

Roads were, as far as possible, straight as the shortest distance between two points is a straight line. As they were expensive to build, the shortest distance possible was also desirable in terms of cost. The reasons for the durability of Roman roads are (a) the foundation of large heavy stones; (b) the curved upper surface which allowed water to drain off; and (c) the gutters at the sides to carry off the water. (It was known that soggy ground made roads collapse.) The flat slabs on top were used only on very important roads or in cities. For lesser roads, the tops consisted of rammed gravel.

2. Sewerage and water supplies

Although the Romans devised a fairly advanced sewerage system, they could not make strong iron pipes. Those made of lead or earthenware burst under pressure when, for example, channelling water down a hill and up the other side. Water had to be kept on a level, or rather, with a very gentle gradient so that it flowed slowly.

The strength of the arch is shown by the number of aqueducts that still remain scattered all over Europe. The settling tanks removed the grit and other impurities as far as possible from the supply. Even so, people in big cities like Rome got to know the sources of the water, and some sources were more highly esteemed than others. The lowest quality sources were used for baths and street cleaning. People went to the fountains where there was better quality water, just as today we prefer to drink brand X, Y or Z soft drink. Water was distributed in the towns by lead, clay or wooden pipes. Most often extremely durable wooden pipes were used, and even today, when the streets of London are dug up, wooden pipes are frequently found to form a part of the old water supply.



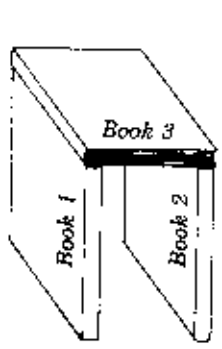
3. Central heating

The hypocaust was fairly elaborate and was generally installed only under the floor of the triclinium, or dining-room, where most social activities took place. The exit of the hot air at the eaves-level is purely conjectural, as no domestic building up to the roof-level has been found. There are plenty of hollow wall bricks (almost identical with those used in building today) extant, and it seems logical that these discharged heat under the eaves.

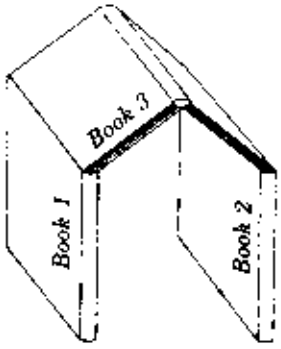
4. Building breakthroughs

Two major building breakthroughs were the invention of concrete and arches. Arches eventually led to the construction of domes, which, of course, merely consist of a series of arches. The principle on which the arch is based and its advantages can be demonstrated by using books.

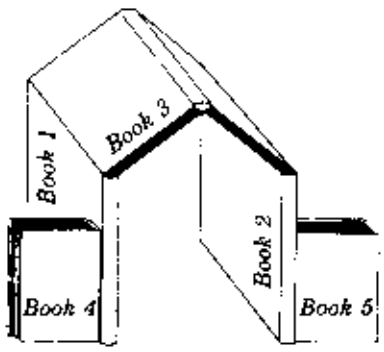
Two upright books and one across the top illustrates the principle of the Greek roof, which could be no wider than the longest tree trunk available for beams. Two books upright with an opened one on top shows how the arch (simulated here by a simple V-shape) can bridge a much wider space. The 'walls' in this demonstration may need supporting because of the side thrust of the 'arch'.



Greek structure



Roman structure with arch



Alternative, using two books as buttresses

Answers to Workbook pp.41–42

1. Of the need for troops, merchants, and officials to move quickly from one part of the empire to another. Straight. Follow the drawing on p.46 of the Pupil's Book.
2. The pupils will need to mention aqueducts, tunnel, settling tanks, pipes, and fountains in their answer.
3. Refer to p.47 of the Pupil's Book.
4. Select from: hard roads, water supply, street cleaning, sewers, fountains, central heating.

ROMAN AMUSEMENTS 48/49

Points to emphasize

1. Private amusements

Besides all of the big public amusements, there were, of course, the more private ones like eating and drinking in taverns, listening to cases in the law courts (a popular pastime), wandering in the forum, gossiping, listening to extroverts declaiming their poetry and attending dinner parties. Unlike male-dominated Greek society, both men and women actively engaged in all of these activities.

2. The theatre

The Greek tragedies fell in popularity, and tastes dropped to the lowest common denominator. In the lowest entertainments, called pantomimes, there was every bestiality imaginable, including the executions mentioned on p.48 of the Pupil's Book. Comedies by Roman authors like Plautus, modelled on Greek lines, retained their appeal and are indeed sometimes performed today.

3. *Micare*

A very common domestic pastime was *micare*. This could be played anywhere at any time. Each of the two players put one hand behind their back and extended a number of fingers from one to five. At a nod from one of them, both whipped out their hands and at the same time called out what they thought the total number of extended fingers (and thumbs) on both hands would amount to. The winner was the one (a) who guessed correctly, or sometimes (b) who guessed the nearest. It was really an excuse for gambling, and somewhat resembles the similar hand-game of scissors/paper/stone, which I have seen played even in the remotest mountain areas of China. There was a Roman saying, 'He is so honest you could play *micare* with him in the dark'. Pupils might like to try this, but in the absence of rupees it probably will not hold their attention for long!

4. The baths

Baths are adequately covered on pp.48 and 49 of the Pupil's Book. It was genuinely a classless activity. There were separate hours for men and women for much of the period, but as decadence set in, there were mixed sessions. There is a well-known anecdote about the Emperor Nero at the baths, who, seeing another man rubbing his body against a pillar (to cleanse himself), asked why he did not employ the slaves appointed for that job. The man, a beggar, replied that he could not afford even the minute sum required, whereupon the emperor gave him a gold piece (as the emperor would have been likewise stark naked one wonders where it came from). The

next day, the baths were crowded with men rubbing themselves against pillars. When asked why, they too gave the same answer as the beggar. The emperor replied, 'As there are so many of you, why don't you rub each other down, and save the expense all together?'

5. Gladiatorial combat

Gladiatorial contests, one of the major blots on Roman civilization, were most likely inherited by them from the Etruscans, a dark, mysterious people who were probably indigenous to the region and who eventually merged with the victorious Romans. Every new device of violence was devised to arouse the appetite of the crowds, and every combination of warrior-against-warrior was attempted.

The fight illustrated on p.49 of the Pupil's Book was one of the more popular contests, where a heavily armoured and well-equipped but slow *secutor* was pitted against a fast *retarius* who had only a net and trident. There were also contests in which one pair fought, and, as soon as one was dead, another came in to take on the victor. The process went on until one person—of perhaps 50—was left alive amid 49 corpses. If a battle between two men had been fought valiantly until one was eventually defeated and on the ground, the victor might appeal to the emperor for permission to kill the victim. The emperor usually turned the decision over to the crowd who would show their pleasure at a good fight by indicating with a 'thumbs up' (literally) sign that the defeated man should be spared. If they thought he had not fought well enough, they would give the 'thumbs down' sign and the man would be killed.

In the great amphitheatres, the Roman navy stretched ropes from side to side above the top tier of seats, and ships' sails were spread across to shade the spectators. There were all the trappings of many modern shows: sellers of fruit, nuts, and biscuits; hirers of cushions (the stone seats grew hard after several hours). From time to time, perfumes were sprayed into the atmosphere.

Answers to Workbook p.43

1. Six months. Slaves did most of the work. Theatres, arenas, race tracks; the government or rich men who wanted to be elected as magistrates.
2. Refer to pp. 48 and 49 of the Pupil's Book.
3. (a) Gladiatorial contests, either in pairs, massed armies or chariots; (b) water battles with the arena flooded; (c) fights between wild beasts and humans, or between the beasts themselves; (d) executions, when criminals (particularly Christians), were thrown to hungry lions.
4. Creative work.

A TYPICAL ROMAN DAY

50/51

Points to emphasize

1. Treatment of women

One major difference between Roman and Greek society was the position of women. While women were not allowed to participate in the magistracy or administration, they had much the same rights as men in other spheres. They had considerable power behind the scenes, too. They certainly mixed freely with men in the marketplace and at all public functions. In the home they took their places with complete equality in discussions at the dinner table.

2. Roman *coiffure*

Romans were obsessed with hair: the women had theirs done in increasingly complex styles and often dyed it. Every morning, the slave girl who performed her mistress' toilet searched for a grey hair, which she removed with tweezers, and—it is widely reported—was often savagely beaten for finding one. Depilatory devices (usually blocks of pumice-stone) were widely used to remove body hair. Men for much of the Roman period were clean-shaven, and the frequent visits to the barber (who set up his 'shop' on the street) were dreaded events. There was no soap to lather the face, and it was impossible to make the razors sharp. Some barbers became adept at making the best of their poor equipment: one famous tombstone epitaph in honour of a dead barber reads, 'Lie lightly on him, earth / For lighter than his hand you cannot be'.

3. Cleanliness

Unlike the Greeks, the Romans were a very clean people, and the bath was a daily routine for most citizens.

4. Leisure

As in Greece, the slaves took away much of the need for work, so that there was plenty of free time, particularly for the better off, to spend the day seeking relaxation at the forum, the baths, the theatre, and the arena.

5. Meals

One of the focal points of the day was the evening meal which, on formal occasions with friends, could last for hours. The diners reclined on their left elbows, three to a couch, round three sides of a low table. The fourth side was left open for serving. People ate with their right hands, sometimes using spoons. There were many courses, some very elaborate when the host wished to show off. Dishes were usually very highly spiced. Here are two typical dishes from a cookery book of the 1st century AD, which has remarkably survived. One of the main ingredients of most Roman dishes was *liquamen*. This was a powerful sauce made by putting fish intestines, heads, and other waste parts into a barrel with a considerable amount of salt, and allowing it to ferment in the sun for several months. The barrel was then tapped and the black liquid sauce trickled out.

Dormice (a large mouse common in Italy)

Stuff the dormouse with minced meats, including the minced meat of other dormice, ground up with pepper, pink-kernels, asafoetida (a gum smelling strongly of onions) and *liquamen*. Sew up the stomach, place on a tile and cook in an oven.

Peas

Boil the peas. When the froth has been skimmed off, grind pepper, lovage (a type of green herb), dill, and dried onions into the mixture. Add *liquamen*. Mix with wine and more *liquamen*. Break in four eggs to each half litre of peas and stir. Put everything into an earthenware saucepan and cook over a low fire. Allow it to set solid and serve.

An everyday dish

Take pieces of cooked udder, pieces of cooked fish and pieces of cooked chicken, and chop them up finely. Break eggs into a saucepan and beat. Put lovage, pepper moistened with *liquamen*, wine, and oil into a mortar and grind. Pour into saucepan and boil until thick. Put the chopped

meats into the sauce. Put an oil-cake (a kind of pancake) into the bottom of a metal pan. Then add a spoonful of the meat mixture, then another pancake, and then another spoonful of meat, and so on, until the pan is full. Sprinkle with pepper and serve.

This is an extract from the novel *The Satyricon* by the Roman author Petronius. It deals with a banquet given by the wealthy but low-born Trimalchio, who was a terrible show-off. While the guests were waiting for the host to arrive:

> . . . there was brought in a large tray on which was a donkey made of rare Corinthian bronze. On the donkey's back were two baskets, one holding green, the other black, olives. By the side of the donkey in silver dishes shaped like bridges were dormice dipped in honey and rolled in poppy seeds. Nearby on a grill were small sausages, piping hot. Under the grill black damsons [a dark plum] and red pomegranates had been sliced up to resemble flames playing over charcoal . . .

(When the host did arrive, the feast became really wild with dishes like pies filled with live birds and roasted animals stuffed with delicate poultry.)

People at formal feasts ate so much that their stomachs could not hold it all. They would frequently make themselves sick by drinking salt water or tickling the back of their throats with feathers to make room for more.

Answers to Workbook p.44

Exercises 1 to 3 are all activity-related.

THE FALL OF THE ROMAN EMPIRE

52/53

Points to emphasize

1. Declining population

Rome reached its pinnacle about the mid-2nd century AD. At first, the decline was slow and probably noticeable only in retrospect. The low birth rate of Roman citizens had been a problem from the last days of the Republic, and Augustus, the first emperor just before the BC/AD divide, had tried to reverse this. Initially rewards were offered for larger families, but later the government adopted punitive measures against those who did not have several children like the restriction on inheritance, increased taxation on bachelors, and the limitation of certain offices to family men. The low birth rate was partly social because contraception was widely available, but it is now believed to have been something much more than that. The strongest suspect at the moment is mild lead poisoning from the universally-used lead water pipes, which may have resulted in reduced fertility.

2. Effects of universal citizenship

One of the biggest single incidents in the decline of Rome was the granting of Roman citizenship to all free people in the empire by Caracalla in AD 212. This made everyone in the empire subject to inheritance tax, but by the same token everyone from Egypt to Britain was entitled to be considered for high office—even in the Senate. This policy also unleashed a savage cut-throat quest for power and led to the break-up of regions and a general disintegration of the imperial structure. In general, these provincial power-hungry men had no real allegiance to Rome itself and were only after position and money.

3. External dangers

Concurrent with the above developments were the constant attacks from the east by Germanic and Persian tribes. Rome never recovered from these: symbolic of this were the new defensive walls built round Rome by Emperor Aurelian (AD 275).

4. Temporary security

Emperors Diocletian (end of 3rd century AD) and Constantine (d. AD 337) temporarily halted the disintegration by a massive reorganization of the empire, but immediately after their reigns, the decline continued. In AD 378, the Goths routed a major Roman army, and a flood of eastern barbarians poured into the empire, to settle in north Africa, Spain, Gaul, and Britain.

5. The fall of Rome

In general, there is no single reason for the collapse of the empire: Rome had been dominant for 500 years, and though it was by far the most efficient civilization in every way in the ancient world, it had become 'weary'. The barbarians were vigorous and determined. The rise of oriental religions, especially Christianity, further divided and weakened the empire.

6. 'Life-span' of civilizations

Perhaps discuss with a good class whether empires, like people, plants, and animals, have a natural lifespan of rise/peak/decay. The Egyptian, Fertile Crescent, Indus, Spanish, British, and Communist empires, among countless others, all seem to have had a finite life.

7. Pevensey castle

The photograph (p.43) of the Pupil's Book) is of a Roman castle at Pevensey, United Kingdom, built close to the shore facing Europe as a defence against the barbarian Saxons who had begun to raid the outer parts of the empire in the 4th century. Its wall are still over 6 metres high.

8. From fact to fiction

There have been many books and plays about the collapse of our world civilization, usually as the result of a global nuclear war which destroys life as we know it, leaving only a few survivors in primitive conditions. Pupils can discuss how they think they would cope in terms of shelter, food, clothing etc. They must remember that there would be no shops or transport and that they would have to do everything by themselves. Ask how they would manage and organize life.

William Golding's *Lord of the Flies* describes how a party of schoolboys being evacuated from a nuclear war zone by plane crash on a deserted island. As the pilot of the plane is killed, there are no adults to supervise them. In this book, the boys quickly revert to primitive savagery. Extracts from this might be interesting reading for the class. John Wyndham's *The Day of the Triffids* describes a disaster which strikes the world: almost everyone is blinded by some cosmic phenomenon, and triffids (walking trees) take over the world. There are graphic descriptions of how people try to survive.

Answers to Workbook pp.45–46

1. The two characters in turn will bring out the points raised by the drawings on p.52. Better pupils can add some characterization of their own. *Senex* is Latin for 'old man' and *Gemitus* for 'moaner'.

2. (a) AD 307–337; (b) reunited the empire; (c) drove out the barbarians temporarily; (d) made Christianity the state religion; (e) founded a new capital at Constantinople (Istanbul) in Turkey.
3. Refer to p.52 of the Pupil's Book.
4. (a) Abandoned towns; (b) village/farming life in small wooden huts; (c) subsistence economy—villages more or less self-supporting; (d) decay of literacy; (e) inter-tribal warfare.

JAPAN

54/55

Points to emphasize

1. Cultural heritage

It is interesting to see how some elements of ancient Japanese society and culture have persisted into our age, particularly the ability to copy other people's ideas and then to improve on them. This will be a dominant theme when discussing the rapid industrialization of Japan in the late 19th century. Note also the dominance of some powerful families—in the period of this book in a military sense, and today in the economic/industrial sense. Although today Japanese goods—cars, visual technology, electronics—dominate world markets, the people themselves still have vestiges of the old isolationism in their attitudes, particularly in their reluctance to admit goods from other nations.

2. Shintoism

This was basically a polytheistic nature cult, with a strong element of ancestor worship. It was never supplanted by Buddhism, and, as the two religions had much in common, there was no conflict. Today the two exist side-by-side, with sophisticated homes having altars to both.

3. Japanese language

The adoption of a basic Chinese character script has proved a problem because while Chinese is monosyllabic (*bu, hen, mang, ne*), the original Japanese language was polysyllabic like English. The whole grammatical structure was different as well. The two famous Japanese monks, Saicho (AD 767–882) and Kukai (AD 774–835), who spent many years studying Buddhism in China, realized the problems involved in translating the Buddhist scriptures into Japanese; they therefore introduced a syllabic script based on Sanskrit called Kana into Japanese writing. This has been incorporated into the Japanese script to that character signs are based on the Chinese while the alphabetic words are based on Sanskrit.

4. Buddhism in Japan

Tradition has it that in AD 538 the king of one of the Korean kingdoms sent a delegation to Japan to enlist their help against another state, and took as a gift a bronze Buddha statue and some holy texts. The emperor of Japan was impressed and asked his ministers if they should adopt the new religion. A powerful faction approved, a temple was built and the statue installed. Almost immediately, a plague broke out, and the opposition faction blamed it on the new religion. Temple and statue were destroyed. The following year a log of camphor wood was found floating near the shore of Japan, and at the same time mysterious voices were heard chanting Buddhist mantras. The emperor rescued the log and had two Buddha statues carved from it. Under the influence of the Soga clan, the new religion became firmly established in Japan.

5. Political structure

There probably is no point in having pupils memorize the names of the great families, but the role of the *shogun* is important as it persisted until the end. Pupils should also understand the fragmented tier of authority.

6. Kamikaze

Kublai Khan's attempted invasions were defeated by what the Japanese believed were gales sent by the gods to rescue them. These 'Divine Winds' were called kamikaze, a title which was revived in World War II: towards the end of the war, the Japanese forces were desperate and squadrons of suicide pilots (called kamikazes), their planes loaded with explosives, were sent to crash and destroy allied warships.

Answers to Workbook pp.47–48

1. (a) Buddhism; (b) writing; (c) artistic ideas; (d) science; (e) style of building; (f) new forms of agriculture; (g) philosophical ideas.
2. (i) The child-emperor nominally ruled the country.
   (ii) He was controlled by the Fujiwara family who were nominally regents.
   (iii) The Fujiwaras were defeated by the Minamoto family but were allowed to retain their nominal regency, while in practice they were controlled by the *shoguns* of the Minamotos.
   (iv) Power passed to the Hojo family, who were made *shikkens* or regents for the *shoguns*, who were in turn controllers of the Fujiwaras, the emperor's regents.
3. (a) Samurai—traditional warrior class that dominated Japanese life for 1000 years.
   (b) Heian period AD 794–1185—one of the great cultural periods of Japanese history when the Chinese influence was absorbed and Japan cut itself off from the world.
   (c) Kublai Khan—the Mongol emperor of China who made two attacks on Japan, only to be defeated when gales destroyed his ships.
   (d) Ainus—the mysterious original inhabitants of Japan, characterized by their non-oriental appearance and hair.
   (e) Shintoism—the state religion of Japan, based on nature gods and a strong ancestor worship.
4. Refer to p.54 of the Pupil's Book.

THE INDUS VALLEY CIVILIZATION

58/59

Points to emphasize

1. Archaeological mystery

The Indus civilization is one of the great mysteries of archaeology: in one way it is so sophisticated (sanitation, streets, and general civic amenities) but other aspects of it are very primitive. Although copper and bronze were known at the time, they seem to have been very rare, judging by the few artifacts found. The seals, often depicting animals, are exquisite, but many of the other figurines are extremely crude.

2. The Indus script

Perhaps a clue might be afforded if the Indus script, which appears only on the many seals, could be deciphered. The writing is probably connected with commerce (traders' names, perhaps) but there seems at the moment no way of making a breakthrough in decoding it.

3. Exchange between the Indus and Fertile Crescent civilizations

There was certainly extensive trade between the Indus empire and the Fertile Crescent, although we are not certain which civilization influenced the other most. The famous 'priest' statue (p.60 of the Pupil's Book) is almost identical to the priest statues from Sumeria; the strange headband and beard trim, and the patterns on the robe (a classical Sumerian symbol of the sky), attest to this. Trade was conducted by a land route and also by sea from a port near the mouth of the Indus. Ships hugged the dangerous coast to the head of the Persian Gulf using a 'compass bird'—a crow carried on the ship, which, when released, flew straight to the nearest point of land.

4. Religion

Although there was obviously a strong religious belief, it is surprising that there is almost a complete absence of monuments or religious figures. The only significant discoveries are the numerous crude clay female figurines (which seem to imply a fertility cult) and a seal which appears to show a horned god, possibly a prototype of Siva.

5. Crops

Barley and wheat seem to have been the main food crops, along with different types of vegetables. The cultivation of cotton was common.

6. Animal figurines

Another mystery are the numerous grotesque animal figurines, which seem almost like modern-day cartoons. Were these made just for amusement, or did they have some deeper significance? The people did seem to have a sense of fun, as the examples of games and toys on p.86 of the Pupil's Book show. The model carts, too, may have been toys.

Answers to Workbook p.49

1. Refer to p.14 and p.58 of the Pupil's Book.
2. Priests; no palaces or any symbols of royalty have been discovered.
3. Subject to strong winds. They constructed streets with bends to reduce the force of the wind.
4. (a) Paved, wide streets; good sanitation with manholes for cleaning; public wells; large public buildings.
   (b) Baths; toilets; drains; private water supply; two storeys.
5. (a) Great Bath with what seem like priests' quarters. Probably used for ritual purification before ceremonies; (b) possibly a granary for storing grain which was used as a medium of exchange: officials, the police and government workers were paid in grain; (c) a large assembly hall. Purpose totally unknown, although some suggest that it may have been used for government functions, a place where representatives of the city could meet.

THE RISE AND FALL OF THE INDUS VALLEY CIVILIZATION 60/61

Points to emphasize

Some of the material in this spread is covered by the notes on the previous section.

1. Reconstruction activities

Children might like to reconstruct the Mohenjo-daro noblewoman, using the figure of the

dancing girl on p.60 of the Pupil's Book as a model. Point out the large number of bracelets on the dancer (other figures show anklets, too); the elaborate hair-style of the woman; the many necklaces/pendants; the hip belt; possibly a high neckline indicating jewellery or clothing. Others might like to design 'crazy' cartoon animals.

2. Reasons for decline

Causes of the steady decline of Mohenjo-daro are most likely climatic. The course of the river might have changed, as it frequently did; there may have been a general climate change resulting in lower rainfall; the destruction of forests in the region may have led to the denudation of the soil (the monsoons washed most of the fertile soil into the rivers because the fall of the rain was not broken by the leaves of the trees). Point out that this is happening even today in South America, and, to a lesser extent, in the western United States, as well as in south-east Asia where the demand for hardwoods, especially teak, has left the surface of the land unprotected. The ubiquitous goat may have also helped to strip the land of vegetation: in Roman times north Africa was the 'bread basket' of the Roman empire, but the nomads with their goats helped to turn it into the Sahara Desert.

3. Field trips

If your school has access to a museum—Karachi and Lahore are excellent—a visit to see the real artifacts would be a revelation to pupils.

Answers to Workbook p.50

1. Most artifacts were made of wood which has long since rotted away.
2. Neglect of houses (repaired roughly with poorer bricks); drainage systems not repaired when they broke down; houses subdivided into smaller rooms to hold more, less wealthy, tenants.
3. Refer to (2) in the teacher's notes above: climatic changes; river changes; overgrazing by stock, especially goats; deforestation causing soil erosion.
4. The Aryans.
5. Creative work.

THE ARYAN CIVILIZATION

62/63

Points to emphasize

1. Conquest

The Aryans were relatively primitive compared with the more suphisticated people of the Indus valley civilization (especially the city-dwellers). But as before in history, the Indus civilization had perhaps become decadent and apathetic, and was no match for the vigorous, energetic invaders. To the Aryans, the lush Indus valley must have seemed a paradise after the rough wild pasturage of their native central Asia.

2. The non-Aryan

The Aryans despised the people of the Indus valley, and the term 'non-Aryan' was a term of abuse. One thinks of Hitler and the Nazi regime, where 'non-Aryan' had similar connotations and was used as a pretext for the extermination of the Jews and gypsies.

3. Aryan discoveries

It is surprising that a rough nomadic people should have discovered the practical properties of copper, and later bronze, and the sophisticated use of the wheel. These seem more like the discoveries of a settled, civilized community, but it seems that for these metals at least central Asia was the original source.

4. Sanskrit

Although there was no written language, the speech of the Aryans evolved into Sanskrit, the forerunner of most Indian and European languages. The derivation of certain words can still be traced: Agni, god of fire, reappears in Latin as *ignis* (fire); Mithra, the Sun god, (once a strong competitor of Christianity) resurfaces in Persia, and thence to Rome and all over the empire as the Sun god; *devas* (Sanskrit generic name for deity) becomes Latin *deus* and hence 'deity'.

5. Worship of Dravidian deities

Some Dravidian deities seem to have been adopted by the Aryans, perhaps because they were closely connected with the agrarian culture of the Indus valley. The nomads had not felt such a strong need to placate the gods of the Earth before. But that, like so much of this shadowy period, is pure conjecture.

6. Horses

The horse was a powerful factor in the conquest of the Indus, and is constantly praised in the later *Rig Veda*. The Dravidians were completely unfamiliar with this powerful beast, and no doubt it terrified them just as it did the Aztecs and Incas when the Spanish conquered central America, where the horse, too, was unknown. The combination of horse-drawn chariots, leather armour, and far superior weapons effectively subjugated the Dravidians. It is worth nothing that there is no evidence of horses being ridden at this period—that had to wait until the discovery of stirrups. Later the horse-sacrifice became one of the most sacred of the rituals of their religion.

7. Aryan life and customs

No art objects of the earlier Aryan period have been discovered. The *Vedas*, collected in about 1000 BC (although not written down for another 2000 years), were transmitted by oral tradition from a much earlier time and give us glimpses of life in the earlier Aryan days. Women seem to have had virtual equality with men, and there is no hint of the child marriage that developed in the later Hindu religion. The cow was highly prized for its material products—leather, meat, milk—and was not apparently sacred at the time. Beef seems to have been generally eaten. Flocks of sheep and goats were also kept, as the cultivation of cotton apparently vanished temporarily with the fall of the Indus empire. Wheat and barley were grain crops, and a holy potion called *soma* was drunk at rituals—and perhaps surreptitiously at other times. We do not know what it consisted of although it may have been a plant narcotic or alcohol fermented from fruit. Musical instruments were developed, no doubt, for the dancing of which the Aryans seem to have been so fond.

8. Aryan influence on Hinduism

In the Aryan pantheon can be seen the roots of the Hindu gods, religion and rituals—the funerary ceremonies, for example.

Answers to Workbook pp.51–52

1. Refer to p.62 of the Pupil's Book. In boxes: (c) to search for grazing land; perhaps drought; (d) carts as in the drawing on p.63 of the Pupil's Book.
2. Differences: Ayran—taller, light complexion, fair hair, straight nose.
   Dravidian—short, very dark, dark hair, snub-nosed.
3. (a) Good fighters; (b) loved dancing; (c) very religious; (d) no written language; (e) metal workers; (f) nomadic herders.
4. (a) Better metal weapons; (b) armour; (c) horse-drawn chariots; (d) vigorous people; (e) skilled fighters; (f) Indus valley people unused to wars.
5. Most of them were killed by the Aryans but some fled south to start a new civilization in the Deccan.
6. To settle in villages and grow crops like barley and wheat. (They also adopted certain Dravidian gods and customs.)
7. The Shining Ones. (a) Indra, rain; (b) Agni, fire; (c) Mithra, the Sun; (d) Usha, dawn.

ARYAN BELIEFS AND ORGANIZATION

64/65

Points to emphasize

1. Oral tradition

The oral transmission of the *Rig Veda* for over 2000 years is astounding, as specialists say it seems to have been virtually unchanged since its inception. The problems of oral transmission can be shown in an amusing class exercise. A pupil at one corner of the room is given a sentence on a slip of paper. (Any sentence will do, but a tongue-twister is particularly effective). The first pupil whispers this into the ear of his/her neighbour who has to repeat exactly what he/she thinks was heard. No one is allowed to repeat the sentence or answer questions. Pupil 2 passes it on to 3, and so on, all round the class—or after a dozen pupils or so—and the last person says aloud the message thought to have been received. This should help to show how oral tradition can become totally inaccurate, even with the best of intentions. It might be worth mentioning that the Aryan peoples had no written language as they did not need one. Their sense of oral communication seems to have been very strong, rather like (at least in the United Kingdom) that of the gypsies. The first evidence of a written script seems to date from about the 4th century BC.

2. Sanskrit

Sanskrit remained a sacred and literary language; vernaculars probably developed from a mixture of local speech and Sanskrit, one notable example being the Prakrit dialect. Brahminic teachings forbade the writing of religious texts, and the first known manuscript of the *Rig Veda* dates from the 15th century AD.

3. Aryans in the Punjab

Little is known of the Aryan settlements in the Punjab. The great poems from which we derive much of our early knowledge (*Mahabharata, Ramayana*) seem quite specifically located in the Ganges/Jumna doab (a tract of land between two rivers). Clearing the natural forest for agriculture had just begun in the Punjab. There were constant wars between petty kingdoms. Later these constituted the foundations for the conflicts in Northern India for many centuries to come.

4. Transmigration of souls

The principle of rebirth is very crudely explained in the Pupil's Book but should be enough for the children at this stage. It is elaborated on more under Buddhism in Book 2. It is interesting that the belief reached Greece, where the philosopher Pythagoras (c. 550 BC) used it as a basis for his transmigration of souls philosophy. The 'karma' principle was, of course, an attempt to explain the grossly unjust situation which arose time and again—good people suffering while the wicked prospered. They were according to karma, being rewarded or punished for what they had done in their previous existence. There might be some discussion with a good class on the plausibility of this belief.

5. Caste system

The caste system soon ossified and became totally inflexible. A class below the Shudras—the untouchables—emerged, whose members were regarded as suitable only for the most degrading tasks. They were often forced to live in poor settlements outside the towns.

Answers to Workbook pp.53–54

1. *Rig Veda*. *Upanishads*. Indra, Agni, Mithra, Usha. Hindu.
2. Goes into another body that is being born. How good or bad the person has been in his or her previous life. Karma.
3. It will be interesting to see what they think the teacher will be next!
4. Brahmins—priests; Kshatriyas—kings and warriors; Vaishyas—craftsmen, traders, worker, farmers, artists; Shudras—the lowest workers and servants. One could not take part in religious ceremonies or read holy books. (They were probably illiterate anyway.)
5. (a) The *Rig Veda* is still the basis of Hinduism; (b) ceremonies are often still the same, especially cremation and throwing ashes into rivers; (c) religious thinking is still similar, especially as regards rebirth.

THE PERSIAN EMPIRE

66/67

Points to emphasize

1. The Persians in India

The area of Darius's empire which now constitutes modern Pakistan does not figure prominently in contemporary records. It was more or less considered the 'end' of the world, although, for the Persians, it proved to be a very profitable area. It produced approximately one-third of the tribute demanded by the Persians from their subject peoples, largely in the form of gold dust gathered from alluvial deposits and river beds. India was required to provide 360 talents of gold dust, which was an enormous sum. ('Talent' was an ancient measure of precious metal.)

2. Cotton

Contemporary Greek writers repeatedly comment on the cotton of the Indian bowmen who fought for the Persians in battles such as that of Thermopylae and Marathon. The material was new to the western world. Alexander the Great asserted that one of the main reasons for his invasion of Northern India was revenge; he wanted to retaliate against the Indian soldiers who had helped the Persians attack Athens two centuries earlier.

3. Horses and war chariots

Horses were another important tribute demanded by the Persians from their subject peoples, and the Asian animals were in much demand. As well as their formidable infantry (who were hampered by using relatively shorter spears compared to the Greek phalanx), the Persians fought both on horseback and more so on light war chariots. These chariots are carved on thousands of tombs and pillars.

There was a light spoked wheel set at the rear of the chariot, two horses, the driver at the front and the noble warrior at the rear. The two handles at the rear of the chariot were to let the warrior mount easily. There are some reports of the Persians using chariots with long scythes (or curved knives) protruding from the axles. These seem to have been used to break up enemy infantry.

4. Skylax's voyage

Before actually conquering north-west India, Darius sent a preliminary party under the Greek sailor Skylax to reconnoitre a way from the upper waters of the river round Gandhara to the sea. The force built a fleet in the head waters of the Indus and reached the sea after a voyage of thirteen months. From there they sailed to the region of Suez, an incredible voyage for the period, spanning almost the whole of the Persian empire.

5. Standardization

The concept of money, as opposed to barter, and a standard system of weights and measures were introduced to the subcontinent by the Persians. A written script was reintroduced, as the earlier Indian one had fallen into disuse. The above changes, as well as the collection of tribute, necessitated a vast administrative system of officials and tax collectors. On the whole, however, the Persians allowed conquered people to manage their own internal affairs in the traditional manner.

6. Zoroastrianism

Zoroaster was one of the earliest teachers of monotheism. He taught that there was one god, Ahura Mazda, who was meant to replace the multiplicity of gods of earlier times. The concept of good and evil, and the perpetual battle between these forces, was much the same as in other religions. Zoroaster taught of a final judgement where the righteous went to the equivalent of paradise and the wicked to a place to dwell 'in constant torment of misery, darkness, and foul food'. Many Zoroastrian ideas seem to have been derived from earlier Aryan customs.

7. Taxila as centre of culture

Taxila was the great centre of culture, arts, and science (especially medicine). In about 500 BC, the great botanist and doctor, Atreya, taught in Taxila, from where his ideas spread to Greece.

Answers to Workbook pp.55–56

1. Refer to p.66 of the Pupil's Book.
2. Individual research work.
3. (a) Gold; (b) steel; (c) wool.
4. (a) Coins; (b) weights and measures.
5. (a) New ideas on medicine; (b) new ideas on religion.
6. (a) New 'gods'; (b) writing; (c) administration; (d) new ideas on art and building.

7. Gandhara region. (a) Steel making; (b) art, culture, scholars; (c) merchants; (d) Buddhism; (e) sculpture.
8. (a) coins were much easier to handle; prices could be fixed; (b) as the same weights and measures were used throughout the empire, there were no more arguments about conversion etc.

ALEXANDER THE GREAT

68/69

Points to emphasize

A couple of anecdotes about Alexander might help to make the text a little more palatable.

1. Bucephalus

His horse, Bucephalus, was bought for Alexander's father, Philip, by a close Greek friend, Demaratus, and was said to have cost three times as much as a normal first-class animal. Alexander was only ten or twelve years old when the horse was presented to Philip in Macedonia. But the horse reared and bucked and refused to obey orders. Philip ordered it to be taken away but the young Alexander said that he thought he could quieten the animal. He had noticed that the Sun was behind Bucephalus and that the horse was terrified of its own shadow. Alexander took the halter, turned the animal round to face the Sun, and it immediately became quiet – to the immense applause of the king and the court. Philip gave the animal to Alexander, who rode it for the next twenty years, and an incredible bond seems to have been forged between the two. Bucephalus died at the battle with Porus, probably of old age, but reportedly of spear wounds. The army liked to think of it, as of its master, as immortal. After the defeat of Porus, Alexander founded two cities on either side of the River Jhelum, one named Nicaea (Victory) and the other Bucephala. The site was subsequently flooded so no one knows the exact locations of these ancient cities.

2. Roxanne

While Alexander was in India, a Persian noble, Oxyartes, rebelled and when pursued by the Greeks, took refuge in a supposedly impregnable fortress built into a cliff. A soothsayer/prophet had said that nothing except soldiers with wings could possibly take the stronghold.

Alexander reached the cliff and asked for 300 volunteers from among his Macedonian soldiers—men who had spent all of their lives in the mountains of Northern Greece and were as agile as goats on the cliff side. He offered them a large reward if they could climb the cliff under the cover of darkness, carrying white flags. Thirty, we are told, fell to their deaths, but the remaining 270 reached the cliff edge by morning, waving their huge white flags. A herald approached as near as he could and told Oxyartes that the winged soldiers had already flown to the top of the mountain and were about to fly to the fortress. Oxyartes surrendered at the fulfilment of the prophecy and Alexander entered the citadel by the access path. Oxyartes, his family, and all the men in the castle expected to be slaughtered and the women perhaps taken as slaves. But among Oxyartes's daughters was the beautiful Roxanne, with whom Alexander fell instantly in love. Instead of being killed, Oxyartes was lifted to his feet by Alexander, who asked him for permission to marry Roxanne. The wedding celebrations lasted a week. The Indians could not understand Alexander's magnanimity because the usual practice at the time was to slaughter the enemy and to keep captured women as slave-concubines.

Alexander's son, Alexander Aegos, was born to Roxanne shortly after Alexander the Great died and instantly became a pawn in the power game for succession. He was taken to Macedonia with his mother and was murdered with Roxanne in about 310 BC, almost certainly by Alexander's brother, Arrhidaeus, who had set himself up as king.

3. The battle against Porus

The attacks actually lasted a week, until Porus's men were exhausted, racing for some 30 kilometres up and down the bank of the river. Alexander's best men crossed the river in a terrible storm at night and began the attack. The elephants, though formidable in the pitched Indian battles, were not a serious problem for the Greeks, who had worked out how to deal with them. The animals were difficult to manoeuvre, and to swing from a frontal attack, which they had expected, to one from the side, presented Porus with problems. His cavalry was no match for the Scythians of Alexander. The infantry, though vastly outnumbering the Macedonians, was wild and undisciplined compared with the solid phalanx. Alexander's troops rushed into the elephants with their axes, attacking the trunks—the most sensitive part of the animal—and the hamstrings. (These are the tendons behind the knee and operate the lower part of the leg from the muscles in the thigh. If the hamstring is cut the leg folds up like a hinge and is complete useless.) The elephants, who were wounded in the trunks, turned and stampeded, trampling their own men.

Contemporary Indian sources are generally silent on Alexander's incursion, so it must have been considered little more than a major raid.

4. Alexander—madman or genius?

Alexander, though much admired ever since, was on the borderline between genius and insanity. There is no doubt that he became more and more unstable, and was certainly a megalomaniac. He regarded himself as a deity—and founded at least 13 cities called Alexandria. Yet even he, in the midst of his madness, showed the consummate skills of command and knew when to yield—as to his men at Beas when they refused to go further. Perhaps even Alexander was glad of an excuse to go no further, for he must have been aware of the great Magadha kingdom beyond, which was said to have 200,000 foot-soldiers and a far larger cavalry with 2000 chariots and 4000 elephants. In eight years, the Macedonians had marched almost 20,000 kilometres, and, now, in the middle of the monsoon season, their clothes soaked and their food rotting, they had had enough.

Answers to Workbook pp.57–58

1. 356 BC—birth; 336 BC—accession on murder of Philip; 332 BC—defeat and murder of Darius. Alexander the ruler of Persian empire; 327 BC—Alexander enters India. Defeat of Porus; 323 BC—death of Alexander.
2. Refer to (3) in the teacher's notes above.
   Alexander would have noted the vulnerability of the elephants' trunks, which are extremely sensitive. It is thought that he used long knives/swords on the ends of poles to enable his men to approach near enough to wound the trunks. He also realized that it was relatively easy to cut the elephants' hamstrings, as they were slow and cumbersome in their movements, especially in turning, unlike horses. He also knew that pain-maddened elephants were liable to fly in panic, irrespective of who was in the way. He probably asked for very fast volunteers who could quickly disable the elephants.

3. and 4. Creative work.

Points to emphasize

1. Pataliputra

Chandragupta, as mentioned on p.70 of the Pupil's Book, was paranoid about being assassinated. Pataliputra was a fine city some 15 by 3 kilometres with a moat and wooden walls, well-planned streets, theatres, gambling halls, bazaars, race-tracks, inns, and meeting places for religions and guilds. In the centre was the king's palace, walled in and surrounded by lakes and exotic birds. The palace was built of gold-plated wood. Chandragupta was surrounded by slave-women who cooked his food and entertained him. A contemporary account describes one of the rare occasions when he left the palace:

> Then comes a great host of attendants in holiday dress, with golden vessels, such as huge basing and goblets two metres broad, tables, chairs of state, drinking and washing vessels, all of Indian copper but set with jewels. Others wear robes embroidered with gold thread and lead wild beasts such as buffaloes, leopards, tame lions and rare birds in cages.
>
> The Amazons [women warriors] lined the streets and kept spectators at a safe distance.
>
> It was death to come inside the line of women . . .

We do not know what eventually happened to Chandragupta; in 298 BC he either died or became a Jainist monk.

2. Government and administration

Megasthenes (through Strabo) gave a detailed account of life in the Mauryan empire at the time. This is how he describes the administration of the city:

> There are six bodies (groups of officials) of five members each. The first has as its duty the inspection of all crafts and-manufactures. The second deals with the entertainment and accommodation of strangers, the collection of information about their country, their health care and their funerary rights. The third group collects data about births and deaths, not only for taxation purposes, but also to prevent births and deaths among high or low classes from being concealed. The fourth body deals with sales and barter. Its members check weights and measures; no one is allowed to deal in a variety of goods unless he pays a double tax. The fifth body supervises manufactured articles and sells them by public notice. New and second-hand must not be sold together and there is a fine for anyone who does so. The sixth body collects a tenth of the price of anything sold, the punishment for defrauding the government being execution.

Answers to Workbook p.59

1. Refer to p.70 of the Pupil's Book. See p.68 for the location of Taxila.
2. This will be a matter of choice. Perhaps the only universal choice for the GOOD pan would be schools and colleges (though some pupils may not agree!)
   Perhaps some discussion under (5) might take place first. This is really the old political problem of left and right—state control or individual freedom. Still, of course, an issue, even today. Although such things as new roads (an increase in taxes), land clearance (an increase in taxes), control of gambling and state ownership might have seemed

oppressive at the time, it was probably good for the long-term development of the empire.

3. and 4. Creative work.

5. Perhaps a bright class might like to grapple with this; Jeremy Bentham and his 'greatest good for the greatest number' may be relevant here. How much individual freedom should people give up for the benefit of the community? Obviously such criminal activities as-theft, murder, fraud etc. have to be controlled and punished, although the perpetrators might say that this was limiting their freedom. One could go on enumerating possible 'offences'—disobeying traffic signals, taking drugs, refusing to go to school, throwing noisy parties, spitting in public—but to what extent can a society permit these?

   Children like devising punishments. Ask them to come up with punishments for some offences particularly applicable to the culture or local environment.

THE MAURYAN EMPEROR ASOKA

72/73

Points to emphasize

1. Asoka's conversion

Buddhism at this time was not considered a separate religion, as, for example, Islam and Christianity are, but a sect of Hinduism. It was not even as different from Hinduism as the Protestant and Catholic sects are in Christianity. Asoka seems merely to have been converted to the Buddhist sect by the famous teacher Upagupta of Mathura by the events of Kalinga. It is most probable that he had been considering the matter for some time—just as the Hindu prince who became Buddha himself had done. In most of his rock and pillar inscriptions, Asoka emphasized the holiness of, and the respect due to, Brahmins and religious men.

2. Rock edicts

This is a typical extract from one of the rock edicts:

> This account of Dharma [morality, behaviour—see below] has been caused to be written by King Piyadasi [Asoka always called himself this] Beloved-of-the-Gods. Here in my kingdom no living thing must be killed and sacrificed. And no festivals must be held. For King Piyadasi sees much evil in festival meetings. Nevertheless there are some festival meetings which are considered meritorious by King Piyadasi. Formerly in the kitchens of King Piyadasi . . . many hundred thousands of animals were killed daily for the making of curry. But now . . . only three animals are being killed for curry: two peacocks and one deer, and even the deer not regularly. Even these three animals will not be killed in future.

3. Dharma

The whole aim of Asoka was the Dharma. This is how he describes it in Rock Edict Eleven:

> Dharma is good behaviour towards slaves and servants, obedience to mother and father, generosity towards friends and the abstention from killing living things . . . By doing this there is gain in this world, and in the next there is infinite merit . . .

The Second Pillar Edict shows Asoka in a not very modest mood:

> I have given the gift of insight in various forms. I have conferred many benefits on man, animals, birds, and fish, even to saving their lives, and I have done many other commendable deeds . . .

4. Missionary work

Buddhist missionaries were sent to Sri Lanka, Myanmar, Gandhara, Kashmir, Deccan, Tamil country, Egypt, and Greece. Buddhism only took root in Sri Lanka at this time, which remained the centre of Buddhism when the religion lost popularity in India.

5. Administration

Asoka was not just a philosopher/religious emperor, he was also a very good administrator. Viceroys ruled the north-west from Taxila, the west and south-west from Ujjain, and the east from Kalinga. The central area was under Asoka's direct supervision. There were no rebellions of any significance during his long reign, and foreign relations were of mutual toleration and respect.

6. Collapse of an idyllic society

Discuss with pupils why this apparently idyllic society collapsed so suddenly after the death of Asoka. This remains a mystery, but some of the factors that led to its collapse include:

(a) Opposition of the Brahmin caste, who despite Asoka's insistence on their position, did lose prestige.
(b) Opposition of the Kshatriya caste, who were more or less superfluous.
(c) Human nature was probably the most important factor, people seem to dislike a paternalistic 'do-gooding' authority. One can cite examples throughout history of 'perfect' societies which have been rejected: the Commonwealth in Britain, communism in Russia, the revolutionary republic in France, and so on.

Perhaps pupils can come up with some more answers.

In practical terms, the empire was weakened by a succession of incompetent rulers after Asoka. There were plenty of people ready to exploit the political weakness of these emperors.

Answers to Workbook p.60

1. 37 years; 269–232 BC. The slaughter and misery he witnessed during the conquest of Kalinga. Buddhist.
2. Refer to p.73 of the Pupil's Book.
3. Of the opposition of the Brahmins (and any points that emerge from (6) in the teacher's notes above). Missionaries had gone to many parts of the world, especially Sri Lanka, and Buddhism became a major world religion.
4. This might be interesting!

Points to emphasize

1. Sakala

Here is a contemporary description of Menander's capital, Sakala (Sialkot):

> . . . it is called Sakala, situated in delightful country, well-watered and hilly, abounding in parks and gardens and groves and lakes and tanks, a paradise of rivers and mountains and woods. Well-laid out are its streets, squares, crossroads and marketplaces. Well-displayed are the innumerable sorts of costly merchandise with which its shops are filled. It is richly adorned with hundreds of alms-halls of various kinds, and splendid with thousands of magnificent mansions, which rise aloft like the peaks of the Himalayas. Its streets are filled with elephants, horses, carriages, and foot passengers, and crowded with men of all sorts and conditions—Brahmins, nobles, craftsmen, and servants. They resound with the cries of welcome to teachers of every creed, and the city is the resort of leading men of each of the different sects . . .

2. The Kafirs of the Hindu Kush

The Kafirs of the Hindu Kush are thought by some anthropologists to be the descendants of the Greeks who remained behind at this time. The book *The Kafirs of the Hindu-Kush* (OUP 1974), written by Sir George Robertson in 1895 and recently reissued, is well worth buying for a school library. Teachers will find it full of delightful incidents written by an Indian Medical Service doctor who spent more than a year living with the people in the remote valleys of northern Pakistan.

Answers to Workbook pp.61–62

1. Refer to pp.74 and 77 of the Pupil's Book.
2. In general, the following information can be gleaned from coins: the value, date, language, meaning of symbols on both faces, shape, type of currency used, type of metal, frequency of use. More specific details may be observed when the actual coins/bills are seen.
3. Creative work.
4. Details can be found on p.75 of the Pupil's Book: (a) trade routes; (b) use of the Greek language; (c) the spread of Greek culture throughout India; (d) the settlement of nomads in cities.
5. Points which should be mentioned are: (a) male figure; (b) seated in lotus position; (c) hands clasped in front; (d) dressed in robe which has slipped from shoulders to hip level; (e) figure horribly emaciated—ribs protruding, muscles and blood vessels of neck sticking out, arms pathetically thin, blood vessels over ribcage very prominent; (f) face—short beard and moustache, eyes deep-sunk in sockets, hair piled on top with a top-knot; (g) long ear lobes; (h) halo; (i) seated on plinth probably representing the ground (stylized grass, plants) with a frieze of six small figures below making offerings (?) to a shrine(?).

   Pupils will probably not come up with all of these points without some help.

Points to emphasize

1. Migratory patterns

The movements of these central Asian peoples is complex, and can generally be tracked down by their coins, although some Chinese records do exist. It seems that the Hsiung Nu people, who have not been completely identified but are thought by many to be the Huns who invaded Europe and overthrew the Roman empire. Being repulsed by the Chinese in the north, they turned south-westwards and drove the Yeuh Chi people out. The Yeuh Chi drove another central Asian tribe, the Scythians, out into the former Greek colony of Bactria. Here the Yeuh Chi seem to have settled and became the forerunners of the Kushans, who themselves later invaded north-western India. The Scythians continued south-westwards, some migrating south-eastwards into India, and westwards towards Parthia, where they were repulsed. Later the Parthians themselves entered India and the history of the two peoples, who were very similar, becomes confused.

2. Trade

Although this was a time of great confusion, the merchants prospered. The Roman empire had by the 1st century AD reached the River Tigris, which was the western frontier of the Persian-Parthian empire. Goods were therefore easily passed from Asia to Europe.

3. Battle techniques

The battle techniques of both the Scythian and Parthian warriors were very similar. The warrior used a powerful bow made of alternate layers of wood and bone. This made it ideal for use on horseback, and the common technique was to gallop at full speed towards the enemy, then turn sharply and fire arrows rapidly as they retreated. This was possible because of (a) the short powerful bow (the Indian bow at this period was 1.5 to 2 metres long and one end had to be placed on the ground) and (b) the superb horsemanship of these people from the steppes, who could control their animals at full speed with their knees. The English expression 'a Parthian shot' for a final decisive comment as one leaves an argument echoes this technique. An example might be a two-hour haggle between a trader and a potential customer over some commodity; when no bargain has been struck for the potential purchases, the customer says as he leaves, 'Well . . . I didn't want it anyway, I already have two of them at home . . .'

4. Central Asian wall hangings

The central Asian wall hangings from about 500 to 400 BC are fascinating. They come from the Pazyryk tombs in the Altai mountains of Siberia. Obviously of a very important noble or king, the underground tombs were highly decorated, and then topped with huge boulders. Water seeped in and the whole contents were frozen in ice, so that when they were discovered by archaeologists, the colours, fabrics, and bodies were found to be preserved as if in a deep freeze. (See p.77 of the Pupil's Book.) The wall hangings show how the different influences permeated through central Asia: the noble's clothing is strongly Chinese in design, the horseman is largely Persian and the stylized Tree of Life is Mesopotamian.

Answers to Workbook pp.63–64

1. (a) Hsiung Nu; (b) Great Wall of China; (c) China; (d) Yeuh Chi; (e) Bactria; (f) the Scythian tribe; (g) Parthia; (h) (north-west) India; (i) the Parthian tribe.
2. Turning backwards in his saddle to shoot. Short, powerful composite bow and complete control of galloping horse with his knees.
3. The meeting of the Roman and Parthian empires along the Tigris River. (a) Jewels, perfumes, spices, dyes, muslin cloth; (b) gold/silver bullion.
4. A meeting between a king/noble and a young knight/nobleman. Older man: king's bald head and clean-shaven chin; strange 'crown' believed to be of fur; long, high-necked robe with strong Chinese influence. Holds, symbolically, the Tree of Life. Younger man: modern hair-style and moustache; short jacket/cloak and long tight trousers; jaunty scarf; apparent absence of stirrups on horse; case for his short bow at his belt.
5. Creative work.

THE KUSHANS

78/79

Points to emphasize

1. Religious assimilation

Kanishka's reign was a melting pot of cultures, during which many religions like Buddhism, Hinduism, Greek, Christianity, Zoroastrianism, and central Asian cults all intermingled. The Buddhism which emerged was very different from that envisaged by its founder. Mahayana (the Greater Vehicle) elevated Buddha to a saviour god along the lines of the Christian deification of Christ. From Hinduism, it adopted the incarnation theory, Buddha being seen as the last of a series of incarnations of the Primeval Spirit. (A further parrallel with Christianity, where Christ is considered the Son of God.) There were lesser deities, Bodhisattvas, each with its own sphere of influence. Rituals and temples proliferated. The religion thus formed was popular among the masses and could be easily adapted to incorporate earlier beliefs, especially the animistic Mon belief of Tibet. Its influence spread northwards into China, and in Korea and Japan.

Hinayana (the Lesser Vehicle), a purer belief and closer to the original, retained Buddha as a human religious teacher. In this form Buddhism prospered in the south, in Sri Lanka, and later south-east Asia.

2. Development of the arts

This was a great period of development in the arts, especially in sculpture, where the earlier Greek style steadily gave way to a true Indian form. As in Islam, early Buddhism prohibited the visual representation of Buddha. His presence was symbolized by a footprint (the step to salvation), a wheel (the wheel of the Dharma) or an empty chair (to show that Buddha had gone to a higher plane). In the Gandhara region, realistic statues were gradually introduced, and soon became a dominant feature of Buddhism. Literature developed rapidly, and Sanskrit became the classical language of poetry and drama.

3. Clothing

The Kushans remained a central Asian people. Their dress, as shown in the statue of Kanishka on p.79 of the Pupil's Book, was unsuitable for the heat of India, and they fled to the hills during the hot season.

4. Trade

The extent of trade at this period is shown by a hoard unearthed in the ruins of Kanishka's palace at Begram, Afghanistan. The presence of Mathura ivories (a famous export in Kushan times), Roman sculpture, Syrian glass, Chinese lacquer, and other treasures indicates a high level of trade.

Answers to Workbook pp.65–66

1. Refer to p.78 of the Pupil's Book.
2. Yeuh Chi. Kanishka; AD 120–150 (approximately). Buddhism.
3. Mahayana; Buddha was a god, among other lesser gods. Tibet, Japan, Korea. Hinayana; Buddha was a human religious teacher. Sri Lanka, south-east Asia.
4. On foot; on horseback (note the obviously luxurious trappings of the horse on the right); in a two-wheeled cart (almost a bus) drawn by two horses; on elephant.
5. (a) Long skirts, coats.
   (b) It appears to be a ceremonial item—a sceptre, perhaps. Could be an elaborate scabbard, but it seems unlikely.
   (c) Both the description and the painting indicate that they had pink faces, wore long skirts and coats, sat on chairs and were big men.

THE GUPTA EMPIRE

80/81

Points to emphasize

1. Contemporary descriptions

The Gupta empire is well-documented by two famous Chinese scholars, Fa-Xian (in India AD 405–411) and Xuan Zhuang (AD 630–643). They travelled throughout India collecting Buddhist manuscripts and artifacts in order to spread the religion in China. Fa-Xian writes:

> The people are numerous and happy. They have not to register their households or attend to any magistrates and their rules. Only those who cultivate the royal lands have to pay a portion of the grain in tax. If they want to go, they go: if they want to stay, they stay. The king governs without beheading or other corporal punishments. Criminals are simply fined, lightly or heavily, according to the circumstance. Even in the cases of repeated attempts at rebellion they only have their right hands cut off. There are no butchers, shops and no dealers in alcohol . . . in buying and selling they use cowrie shells . . .

Two centuries later Xuan Zhuang writes:

> The ordinary people are . . . upright and honourable. In money matters they are without craft, and in administering justice they are considerate. They dread the punishment in another state of existence [i.e. Heaven/Hell/Rebirth] and make light of this present world. They are not deceitful or treacherous in their conduct and are faithful to their oaths and promises, and in their rules of government there is remarkable goodness and integrity. In their behaviour there is much gentleness and sweetness . . . There is no infliction of corporal punishment: criminals are simply left to live or die, and are not counted among men. When the rules of morality or justice have been broken, or if a man is wanting in love for his parents, his nose and ears are cut off and he is expelled from the city to wander in the jungle till he dies . . . In investigating crimes, the rod is not

used to extort proof of guilt. If the accused answers frankly his punishment is proportioned accordingly. Only if he obstinately denies the fault, in order to probe the truth to the bottom, is trial by torture resorted to . . .

4. The White Huns

The Huns here present a great problem to anthropologists and historians. It is not known how these White Huns, as they were called, related to the Huns proper—the Huns who under Attila sacked Rome. The White Huns were definitely defeated by the Gupta emperor Skandagupta (c. AD 455–480). Thwarted in their main objective—the invasion of India—they may have swept westwards to eastern Europe which they ravaged it in the second half of the 5th century AD.

Answers to Workbook pp.67–68

1. Chandragupta; AD 320. The first empire with native rulers, instead of outside invaders. His marriage to the princess of Nepal gave him a powerful army, and he himself was a very skilful general.
2. Refer to p.80 of the Pupil's Book.
3. central Asia. AD 480. Rough, wild, cruel, uncivilized. Destroyed cities, temples, and culture for the sheer delight of violence. AD 550 to 600.
4. The Golden Age of India; life was made as pleasant as possible for the people by just laws, kind treatment and the provision of many amenities.
5. The answers to this question must be a matter of personal choice. Perhaps this exercise could be done orally, with the pupils examining each aspect illustrated in the chart. Maybe pupils will think that the arts, religion, freedom of movement, and scientific advances were not really valuable to the great majority of peasants. Lenient punishments were of benefit only to those who transgressed. Medical treatment (whatever its quality), irrigation schemes, low taxes, regular wages and an efficient police force perhaps impinged in a positive way on the lives of most people.
   Perhaps pupils can vote on three measures which they feel were the most beneficial to the Gupta people through secret ballot. The ten items on p.81 can be placed down one side of a voting slip with space next to each for an X, indicating their selections. This exercise will also help pupils understand the concept of democracy.
   Pupils might like to draw one or more little pictures like those on p.81 with a few words of text, describing reforms which they feel their present government should undertake.

MUHAMMAD BIN QASIM—ISLAM REACHES INDIA

82/83

Points to emphasize

1. The invasion of India

There seems little material available on this episode apart from the bare facts. The ruler of Sri Lanka had sent eight ships with presents and slaves to the governor of Basra, Hajjaj bin Yusuf. These were seized by pirates operating from Daibul near modern Karachi. Hajjaj bin Yusuf was refused permission to invade by Caliph al Walid, until he offered to pay for the expedition himself. His army of 6000 elite Syrian troops set out under the command of his 17 year old nephew and son-in-law, Muhammad bin Qasim, who had already proved himself as a capable governor of Fars (today a part of Iran on the coast of the Gulf centred on Shiraz). A fleet with

more troops, and more importantly, with siege weapons such as catapults and battering rams, followed him down the coast to land at Daibul.

2. Later expansion

The Muslim advance further into India was halted by Muhammad bin Qasim's fall from power when both Caliph Walid and Governor Yusuf died. Muhammad bin Qasim was recalled and executed. Many of the conquered people rebelled. Caliph Umar offered to make them subject-kings if they accepted Islam. This offer was rejected, and slowly the Muslim regained control in Sindh and lower-west Punjab, which divided into separate kingdoms in AD 871.

Answers to Workbook pp.69–70

1. Refer to p.82 of the Pupil's Book.
2. (a) Dramatic increase in trade from the subcontinent, south-east Asia and China to west Asia and Europe.
   (b) Astronomy and hence navigation, which was necessary due to increased trade; medicine, especially surgery; chess.
3. (a) Allowing people to practise local religions; (b) allowing local officials to retain their posts; (c) not forcibly converting the people to Islam; (d) generally lenient treatment.
4. End of 1st row—128 grams
   End of 2nd row—32,786 grams
   End of 3rd row—8,388,608 grams (8.388 tonnes)
   End of 4th row—2147 tonnes
   End of 5th row—549,632 tonnes
   By the end of the 8th row approximately 2,500,000,000,000 tonnes.

SUFISM IN THE SUBCONTINENT

84/85

Points to emphasize

1. The revitalization of religion

It seems that great religions can sometimes become complacent and over-burdened with ritual and the trappings of power. From time to time, they need, revitalization and a return to the basic concepts of the creed. In Christianity there was the 15/16th century Reformation and the appearance of Protestantism. Protestantism was later reformed by sects such as the Quakers, and then in the 19th century, the non-conformist divisions.

2. Facets of Sufims

Sufism itself, of course, split in several different directions. There were the powerful figures, who with the *ulema* and the military leaders, were the strongest pressure groups especially in the Sultanate of Delhi and Mughal periods. At the other extreme were the ascetics who humbled themselves before God and lived in self-imposed, abject poverty.

3. Mysticism and conversion

The mystical aspects of Sufism encouraged the Hindus and Buddhists to identify with this aspect of Islam as their religions, too, had strong mystic elements. Many were converted by this, but the absence of caste was also an important factor. The poetry and music for which Sufism were famous were additional attractions.

Answers to Workbook p.71

1. 7th to 8th centuries AD; as a reform movement in the religion, in an attempt to return to the original ideas and beliefs of Islam because many Muslims had become worldly in their search for power, pleasure, and wealth.
2. To allow people to find a personal and direct contact with God and His love.
3. (a) Meditation; (b) repetition of God's name or of certain sacred verses; (c) music; (d) dancing; (e) asceticism (not mentioned in the Pupil's Book but refer to point (2) in the teacher's notes above).
4. *Suf* means 'wool', and Sufis originally dressed in woollen robes.
5. Missionary and conversion activity; pressure groups—advising rulers; actual physical fighting for what they thought was right; religious teachers.
6. (a) Creation of great poetry; (b) general literature—stories; (c) music; (d) enrichment of the languages of the subcontinent with new words; (e) provided shrines and festivals of saints which added a little colour to the lives of poorer people whose daily routine was generally so drab.

EVERYDAY LIFE IN THE ANCIENT SUBCONTINENT

86/87

Points to emphasize

1. Unbroken continuity

It seems extremely difficult to get any consistent material on the way of life of ordinary people in early India, even as recently as 2000 years ago. We have a detailed picture of life in Egypt, the Fertile Crescent, and of the Minoan, Greek and Roman cultures, but we only have glimpses of what life was like in the subcontinent at the same period. What does emerge from the material we do have is how little village life has changed over the centuries. A recent book of interviews with a village of untouchables in Orissa in the 1960s and 1970s by an American academic is (in many ways) what appears to have been the case in the period which we are discussing. One major change recorded by the study was the prominence of rice as a staple food today, but dress, cosmetics, entertainment and even housing seem very similar to what they were thousands of years ago.

2. Games and entertainments

The toys and games from Mohenjo-daro (in the Karachi Museum) are fascinating in that they show (a) the existence of this basic entertainment, and (b) their universal appeal (as all of these games are common in European sites as well). The key to question (1) of the Workbook p.72 is: (a), (b), (c)—small ball or large marbles; (d) a toy (or perhaps votive) ox; (e) a gaming piece(?) for a board game (the 'board' probably consisted of scratchings on a piece of stone or clay); (f) almost certainly a gaming piece; (g)—(l) dice; (m) probably another gaming counter; (n) possibly something known as tip-cat in the United Kingdom (see below); (o) a simple maze/puzzle—get the hall into the middle without letting it fall off; (p) small ball or large marble; (q) gaming pieces, or, more probably, five stones/jacks/knucklebones as known in the west (see below).

Tipcat

When the 'cat' is lying on the ground both ends are clear of the earth. If one end is given a sharp blow with a stick, the 'cat' whirls up in the air. As it descends, the player tries to hit it as far

as he/she can with the stick. In Europe the 'cat' was made of wood, so that it could withstand hard blows. The Mohenjo-daro ones seem to be made of clay.

Knucklebones/jacks

This game was played widely in ancient Rome, where the prize 'jacks' were human knucklebones. Most people, however, played with pigs' bones. One bone was placed on the back of the hand, which was held about 30 centimetres from the ground, and the other four bones were placed below it on the ground. The player tossed the bone in the air, and then tried to catch it in the palm of the hand. From the palm it was thrown up again, and caught on the back. During the throw, while the bone was still in the air, the player tried to grab one of those on the ground, so that for the next throw there were two bones and then three, four, and five.