

Teaching
Guide **4**

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WORLD WATCH

SOCIAL STUDIES FOR PRIMARY SCHOOLS

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Introduction

An outline of the course

World Watch is a Social Studies course for the 21st century. It is designed for Pakistani primary schools that want to stimulate curiosity, thinking skills, and a love of learning. The course comprises four components: Pupil's Books, Skills Books, interactive CDs, and Teaching Guides.

Core features

- It draws its content and skills from international primary syllabuses while focusing on Pakistan for examples.
- Concepts are covered in a child-friendly way, in simple language with lots of fun and stories.
- At all levels, learning is built on children's experience, the teacher eliciting what they already know and building on this, not simply loading them with facts.
- The language, content, and tasks are progressively graded according to class levels.
- Each level consists of twelve units with approximately five geography-focused units, five history-focused units, and two with focus on civics.
- These three core subject areas are linked to each other where possible.
- At least one geography-based unit per level is focused on environmental issues.
- Values education and ethical thinking are embedded in every unit of the course.
- High priority is given to independent thinking skills and problem-solving activities.
- From the start, children are asked to express individual opinions and it is stressed that some questions have no easy answers.
- Writing frames are provided to help children express their own ideas in open-ended tasks.

Geography

- Mapping skills are taught in a progressive way—from simple plans and icons in Grade 1 to political, physical, environmental, and historical maps by Grade 5.
- A variety of graphs, tables, diagrams, and timelines is used to vary the presentation of content.
- At each level, children are encouraged to make connections between the geographical environment and the way people live.
- The main focus is on the familiar world of Pakistan, starting with the home and moving on to the town, district, country, and the wider world beyond.
- A key element is responsibility towards other people and towards the environment.

History

- An understanding of change over time begins in Grade 1 with recent history taught through older people's memories, artefacts, and photographs.
- Timelines and family trees are used to explain the concept of generational links.
- Stories of historical events and characters enliven history at lower levels.
- A sequenced approach begins in Grade 3 with the introduction of dates.
- The main focus is on the history of Pakistan, balanced with an introduction to key events, discoveries, and stories from world history. The series also highlights the legacy of our past: what we can still see as a result of historic events.
- By Grade 5, children are learning to recognize the connections between the histories of different cultures and the way people have learned from each other over time. They also consider why people acted as they did in the past and how their actions affect the present.

Civics

- At Grades 1 and 2, the idea of society is taught largely through stories. For example, notions of sharing, kindness, and fairness are taught through stories about Rafay and Hiba's adventures. Stories of Quaid-i-Azam's childhood inculcate the importance of following rules and respecting others.
- By Grades 4 and 5, children are expected to express their opinions on key social and ethical questions and to respect the opinions of those who differ from them.
- Children are frequently taught that there is no 'right answer' to complex, ethical problems and that each one has to be considered in context.

Pupil's Books

- The Pupil's Books form the core of the course. They are lavishly illustrated with photographs to bring alive the familiar environment, distant places, and past times.
- Wherever possible, children learn new concepts through child-friendly stories, especially in Grades 1 and 2.
- The 'Contents' page details the learning outcomes for each unit.
- The twelve units of the Pupil's Book consist mainly of reading texts followed by questions and tasks.
- Children are usually expected to write in notebooks.
- At higher grades, units often end with a directed writing task such as a newspaper article, letter to the head teacher, or poster for the school corridor.
- From Grades 3 to 5, there are Key fact boxes with revision questions.

Skills Books

- At each level, there is an accompanying Skills Book in single colour.
- Children are usually expected to write in the Skills Book.
- The tasks are varied and enjoyable, and include maps, word-searches, crosswords, puzzles, multiple choice questions, fill-in-the-blanks, and matching exercises.
- Skills Book pages should be introduced in class and can be completed either in class or for homework.
- Every unit of the Skills Book includes a page entitled 'Values'.
- In Levels 2–5, there is a brief learning outcome at the top of every page in simple, child-friendly language. For Level 1, the learning objective is given in the teacher's notes at the bottom of the page.

Interactive CDs

An Interactive CD containing reinforcement exercises accompanies each Pupil's Book.

Teaching Guides

Teaching Guides are an invaluable resource for the teacher, detailing:

- background knowledge
- learning outcomes
- step-by-step lesson plans
- ideas for further activities and pupil research
- answers to closed questions and indications of what to look for in open questions

At the back of each Teaching Guide there are:

- six photocopiable tests (one for every two units) to help the teacher track how well the children are learning and give feedback to parents
- a photocopiable test record sheet for teachers to keep their records

Contents

Page Nos / Units	Teaching objectives		Learning outcomes	Key words and phrases
	Pupil's Book and Skills Book		Students should be able to:	
Page Unit 1 Lahore	2	<ul style="list-style-type: none"> To explain how to interpret a map showing Pakistan's population To practise reading a map that is drawn to scale To encourage students to take a stance against air pollution To explain how to interpret a rainfall bar chart 	<ul style="list-style-type: none"> interpret and read maps drawn to scale explain the interpretation of a bar chart discuss how air pollution affects our health and environment 	<i>province, capital, border, plain, desert, walled city, tourist, transport, independent, dam, monsoon, vehicle, environment</i>
Page Unit 2 Water	10	<ul style="list-style-type: none"> To locate the same places on a globe and on a map To discuss the sources of water and identify the ones that are harmful To locate the main rivers of Pakistan on a map To create awareness of the plight of the Indus River dolphin 	<ul style="list-style-type: none"> locate cities, countries, and the main rivers of Pakistan on a globe and map identify safe and harmful sources of water identify the threats to the Indus River dolphin 	<i>fresh water, water vapour, groundwater, glacier, reservoir, canal, fishery, chemical, waste, sewage</i>
Page Unit 3 Life in another country	22	<ul style="list-style-type: none"> To revise the intermediate compass directions To locate some Asian countries on a map To explain the use of scale and symbols on a map To revise some facts about Sydney, Australia 	<ul style="list-style-type: none"> locate specific Asian countries on the map interpret the scale and symbols on a map correctly state some facts about Sydney, Australia 	<i>e-pal, compass, harbour, surgical instrument, financial, ferry</i>
Page Unit 4 Where I Live	29	<ul style="list-style-type: none"> To reinforce the importance of a clean environment To plan a town using students' knowledge about healthy living styles and conveniences 	<ul style="list-style-type: none"> explain the importance of a clean environment plan a town using acquired knowledge of healthy lifestyle and conveniences 	<i>leisure, survey</i>
Page Unit 5 Our neighbours	37	<ul style="list-style-type: none"> To find places on a map using latitude and longitude To discuss the importance of protecting endangered animals To identify the neighbouring countries of Pakistan from their outlines To define physical features of the Earth 	<ul style="list-style-type: none"> use longitude and latitude to identify and locate places on a map explain and discuss the importance of protecting endangered species identify Pakistan's neighbouring countries define the Earth's physical features 	<i>coast, mangrove, jute, latitude, longitude, population, rainforest</i>

Page Nos / Units	Teaching objectives	Learning outcomes	Key words and phrases
	Pupil's Book and Skills Book	Students should be able to:	
Page Unit 6 49 Our government	<ul style="list-style-type: none"> To reinforce vocabulary relating to government To discuss road signs and what they tell us To elicit students' opinions on punishments for certain crimes To discuss the qualities of a leader 	<ul style="list-style-type: none"> correctly use vocabulary relating to government identify road signs suggest suitable punishments for crimes discuss qualities of a leader 	<i>political party, minister, defence, tax, crime</i>
Page Unit 7 57 Babur—the first Mughal Emperor	<ul style="list-style-type: none"> To explain how information can be gathered from a family tree To explain how to record information on a timeline To explain how an event from the past can be understood from paintings and diaries To elicit students' opinions on Babur's character 	<ul style="list-style-type: none"> interpret the information shown on a family tree record information on a timeline explain how past events can be understood from paintings and diaries describe Babur's character 	<i>ruler, capital, capture, empire, ancestor, conquer sultan, sultanate, Sultanate of Delhi, emperor</i>
Page Unit 8 66 The Mughal Dynasty	<ul style="list-style-type: none"> To explain the Universal Calendar To retell a story from the Mughal past To show on a map the territories ruled by different Mughal emperors To elicit opinions on how rulers should use their wealth 	<ul style="list-style-type: none"> describe the Universal Calendar to relate an event in history identify territories ruled by Mughal emperors suggest how rulers should use their wealth 	<i>Persia, fort, invader, fair, temple, Golden Temple</i>
Page Unit 9 77 Science and exploration	<ul style="list-style-type: none"> To revise the contributions of Muslim scientists and other earlier scientists To describe a famous sea voyage and mark the route on a map To reinforce some details about a famous historical ship 	<ul style="list-style-type: none"> identify contributions made by Muslim and other earlier scientists describe a famous voyage and mark its route on a map identify and describe a famous, historical ship 	<i>House of Wisdom, century, translate, ancient, printing, astrolabe, experiments, discovery, invention, telescope, microscope, thermometer, silk, spice, west, east, explorer, trader</i>

Page Nos / Units	Teaching objectives		Learning outcomes	Key words and phrases
	Pupil's Book and Skills Book		Students should be able to:	
Page Unit 10 Colonization	91	<ul style="list-style-type: none"> To explain reasons for, and methods of colonization by European countries To compare two different past civilizations To explain how two people can view the same event differently 	<ul style="list-style-type: none"> identify reasons and strategies of European colonization compare two varied, historical civilizations explain how two people view a particular event from different angles 	<i>colonization, colony, century, trader, Far East, Atlantic Ocean, native people, invader, priest, slave, native people, aqueduct, capture</i>
Page Unit 11 Books and printing	104	<ul style="list-style-type: none"> To introduce different kinds of script that have existed in the past To revise how a printing press works To discuss opinions on how printing changed the world 	<ul style="list-style-type: none"> identify various historical scripts explain the working and importance of the printing press 	<i>timeline, parchment, vellum, quill pen, emperor, empire, printing press, scribe, translate</i>
Page Unit 12 Rights and responsibilities	114	<ul style="list-style-type: none"> To discuss the difference between needs and wants To explain that responsibilities come with rights To explain that gifts are not always tangible 	<ul style="list-style-type: none"> differentiate between needs and wants identify rights with consequent responsibilities give examples of gifts that are not always tangible 	<i>need, want, disaster, disability, Declaration of Human Rights, freedom, human rights, children's rights, responsibility</i>
Page 122	Check-up Tests			
Page 131	Answers for Check-up Tests			
Page 133	Record of Assessments			

Unit 1 Lahore

Background knowledge for the unit

This unit develops the students' understanding of the physical features of Punjab (its plains, deserts, and rivers—and its human features [cities, towns, and villages] and political features i.e. provincial boundaries.

Students study the contrasting lifestyles in a village and the capital city, Lahore. Skills of map-reading are developed using the compass rose, key, map, symbols, and grid references. Punjab has the highest population among the provinces of Pakistan and is the second largest, (the largest being Balochistan). Punjab is home to almost 60% of the country's population. Its capital city, Lahore, is the second largest city of Pakistan (Karachi is the largest). Other large cities in Punjab, in order of size from the biggest to the smallest are Faisalabad, Rawalpindi, Multan, Gujranwala, Sargodha, Bahawalpur, Sialkot, Sheikhpura, and Jhang. There have been cities in Punjab for thousands of years, including those of the ancient Indus Valley and Gandhara civilizations. Lahore has many ancient buildings. This province is the major food-producing area of Pakistan.

Expected learning outcomes for the unit

When they have completed this unit in the Pupil's Book and Skills Book most students should be able to:

- locate Punjab on a map of Pakistan
- identify the land and rivers of Punjab
- list the main industries of Lahore and the surrounding area
- identify some of the human features of Lahore, including historical buildings
- describe the climate of Lahore

They will learn how to:

- use a key and symbols to interpret a map
- use grid squares to locate features on a map
- interpret a temperature-record chart for a city

They will begin to understand:

- the problems that arise when large groups of people live close together
- the differences between city and village life
- how modern city life affects the natural environment
- how we can help to reduce our effect on the environment through small changes in our way of life

Lesson 1: Punjab

Learning outcomes

Students should be able to:

- describe the main physical and human features of Punjab and its capital city, Lahore
- use a map key and grid references

Resources

- Pupil's Book pages 2–3
- Skills Book page 2 Population of Pakistan
- A physical map of Punjab

Pupil's Book steps

1. Call on individual students to name the four provinces of Pakistan then ask:
 - Which is the largest province? (Balochistan—Punjab is the second largest.)
2. Recall what they have learned about Punjab from geography and history lessons. If necessary remind the students about the ancient civilizations of Punjab: the Indus Valley cities and the Gandhara Empire.
3. Show the students a map of Punjab and discuss why people have settled there for thousands of years. (It has large plains—stretches of flat land—with plenty of good soil and water from its five rivers.) Also explain that not all the land is fertile (good for growing crops) and let them identify places on the map that are not so good for farming (the two deserts, Cholistan and Thal).
4. Read the first three paragraphs of Pupil's Book page 2, and 'It's a Fact' with the students then ask:
 - How did Punjab get its name? (Because of the five rivers. It means land of five rivers.)
 - What are the names of these rivers? (Indus, Jhelum, Chenab, Ravi, Sutlej)
 - What have you found learned the land in Punjab? (mainly flat plains with very good soil for growing crops; there are two deserts; also mountains in the north and along the border with Balochistan)
5. Ask a volunteer to describe a desert: what it looks like, what the climate is like, and what might grow there. To locate the deserts and mountains the students will need to look at the map on page 3.
6. Now ask the students to look at the map on page 2 and name the provinces and the country that share borders with Punjab. explain that 'boundary' is another word for border.
7. Demonstrate the use of the compass rose by asking:
 - In which direction of the province of Punjab is the border with Balochistan? (west)
 - In which direction is the border with Khyber Pakhtunkhwa? (north)
 - In which direction is the border with India? (east)
 - In which direction is the border with Sindh? (south-west)
8. The students learned about grid references in Book 3. Ask them to look at the map and read the notes about it on page 2. They can then say which grid square Lahore is in. Ask which other city is in that grid square. (Gujranwala)
9. Ask the students to read 'Facts about Lahore' on page 3 and to try to learn them. Then ask them to close the book and put the following questions to the class:
 - What makes Lahore a special city of Punjab? (It is the capital.)
 - Is it the largest city in Pakistan? (No, it is the second largest. The largest is Karachi.)
 - Name some important buildings in Lahore. (the oldest university in Pakistan—the University of Punjab and some historical buildings from the Mughal era)
 - What might visitors enjoy in Lahore? (the gardens, arts, music, festivals, and food)
10. The students can then write the answers to the questions on page 3 in their notebooks.

Skills Book steps

1. Ask the students to look at the map on page 2. (Also ask them to study the maps on pages 2 and 3 of the Pupil's Book.) Read the introduction to page 2 of the Skills Book with them and ask:
 - What does population mean? (the number of people that live in a certain area.)
 - How does the government know how many people live in Pakistan and in each province, city, or village? (They conduct a census. This is when the people are counted.)
2. To help the students imagine a square kilometre, measure and mark a square metre on the ground explain that a square kilometre is 1 million square metres. This is approximately the size of sixty international cricket stadiums.

3. Let the students study the key and discuss its use. (It says what each type of shading on the map means: the different shadings indicate how many people live in different parts of the country.)
4. Ask the students to answer the questions on this page using the map to help them.
5. Let the students study the map on page 3 of the Pupil's Book and use the information to explain why Punjab has a larger population than other provinces. They should think about the type of land. Remind them that people settled in Punjab in ancient times because, although there are deserts, there is a lot of good farmland. Because of this, villages grew into towns and cities and these became centres for trade and business.

Answers to Pupil's Book page 3

- | | | | |
|-----------------------|----------|--|-------|
| 1. Lahore | 2. India | 3. Indus, Jhelum, Chenab, Ravi, Sutlej | |
| 4. Cholistan and Thal | 5. D4 | 6. Sutlej | 7. C3 |

Answers to Skills Book page 2

- a) Quetta
- b) Any four from: Lahore, Sialkot, Gujranwala, Multan, Rawalpindi, Sargodha, Faisalabad, Sheikhupura, Bhawalpur, Jhang
- c) 1000 d) 250 e) fewer than 250 f) Most live in Punjab.

Note: Islamabad is located within the area of Punjab and is situated in the north-eastern part of Pakistan, on the Potwar Plateau. But it actually lies within the Islamabad Capital Territory and so is not listed as a city of Punjab. (This might confuse some students because Islamabad is shown in Punjab on the map. The teacher could explain this very briefly to them.) The Islamabad Capital Territory has historically been a part of the crossroads of Punjab and Khyber Pakhtunkhwa. The Margalla pass is the gateway between these two regions.

Further activities

1. The students could find out more about a province that has a very low population per square kilometre: e.g. Balochistan.
2. Help them to collect information about the land in different parts of the province, the climate, what is grown there, industry, cities, etc.
3. They could explain why there are so few people per square kilometre. This could also be conducted as a group activity.

Lesson 2: The city

Learning outcomes

Students should be able to:

- describe the main physical and human features of Punjab and its capital city, Lahore
- demonstrate accurate use of a map key and grid references

Resources

- Pupil's Book pages 4–5
- Skills Book page 3 Lahore
- Pictures of the Badshahi Mosque and Minar-e-Pakistan
- Rulers

Pupil's Book steps

1. Ask the students what they know about Lahore. Tell them that they will now find out about some of its historic and modern buildings, gardens, factories, transport, and climate.
2. Ask them to look at the aerial photograph of Lahore on page 4 then ask what they notice immediately. (They should notice that it is very green because of the gardens; tell them that it is known as 'The City of Gardens'.) Show them the pictures of the Badshahi Mosque and the monument in Iqbal Park, (Minar-e-Pakistan, which commemorates an important meeting of the All India Muslim League, when the subcontinent was ruled by the British and was one country—India—the Muslim League wanted a separate Muslim state, Pakistan).
3. Ask the class to read about the city on page 4, including 'It's a Fact'. Then ask:
 - Is Lahore an old or a new city? (old)
 - Which very old parts are still there? (gates of the walled city, Badshahi Mosque)
 - What are the main industries of Lahore? (manufacturing cars, motorbikes, railway carriages, electrical goods, steel, chemicals, and computers)
 - Can you name other businesses in Lahore? (shops, handmade carpets, IT, tourism, restaurants)
4. Ask the students read the first paragraph on page 5 then ask them the following questions:
 - How can you travel in and out of Lahore? (by road, air, and rail)
 - Which country does Lahore share its border with? (India)
 - Which village is split in two by the India/Pakistan border? (Wagah)
 - What special ceremony takes place in Wagah every evening? (The flags of India and Pakistan are lowered and the soldiers on the border shake hands.)
 - Why do you think they do this?
5. After the students read about the location of Lahore on page 5, ask:
 - Which river flows through Lahore? (Ravi)
 - Where does the river come from? (the Himalayas)
 - Which river does it join? (Indus)

Skills Book steps

1. Tell the class that they will study a map of the streets of Lahore and use a scale to calculate distances.
2. Read the information on page 3 with the students then ask them to draw a line 2.5 mm long, near the scale. Explain that this represents 2 kilometres on the actual road in the city.
3. Review question 1 of the activity (which has been solved) with the students and ask them to complete questions 2 and 3 on their own.

Answers to Pupil's Book page 4

1. Punjab
2. city
3. Badshahi
4. Any three; carpets, cars, motorcycles, machinery, railway carriages, electrical goods, steel, chemicals, computers

Answers to Skills Book page 3

1. less
2. more
3. There are many roads measuring longer than 2 km: students' choice.

Further activities

1. Ask the students to collect information about travel to and from Lahore.
2. They can be asked to plan journeys from their city to Lahore. (If they live in Lahore they can choose another city to plan the journeys to.)
3. Divide the class into groups so that each can plan journeys using different methods of transport: road, air, and rail.
4. Ask the students to make a note of the distance, type of transport, cost, duration, and places they would travel through.

Lessons 3 and 4: Climate; People; Problems

Learning outcomes

Students should be able to:

- describe the climate of Lahore
- identify some problems caused by a dense population in a city, and their solutions

Resources

- Pupil's Book pages 5–7
- Skills Book page 4 Air pollution; page 5 Rainfall in Lahore
- Rulers
- A rain gauge: this can be home-made using a plastic bottle. See **Further activities**.

Pupil's Book steps

1. Review the definition of climate (the usual weather for each season). Let the students read the paragraph about climate on page 5 then ask:
 - What is the weather like in Lahore during summer? (hot and wet)
 - What is it like in the winter? (cold and dry)
 - Which are the hottest months in Lahore? (May, June, and July)
 - Which are the coldest months in Lahore? (December, January, and February)
 - Which season lasts from late June until September? (monsoon)
2. Read the section about climate on page 6 with the class and ask:
 - What do you know about winters in Lahore? (They are cold. The lowest temperature recorded was minus 1.1 °C in January 1967.)
 - What kind of a storm did Lahore experience in February 2011? (a hailstorm)
3. Choose some students to ask questions which the rest of the class will answer using the temperature chart on page 6.
4. The students can then answer questions 1 to 4 on page 6 in their notebooks.
5. Read 'People' with the class and then let the students read 'Problems' and 'It's a Fact' from page 7 with you. Ask:
 - How many people live in Lahore? (about 10 million)
 - What problems are caused by large numbers of people living close together in large cities? (not enough houses, electricity, or clean water; a lot of garbage; sewage; water polluted by sewage; air polluted by smoke from traffic and factories)
 - What are people doing to help keep Lahore clean and make it less polluted? (taking part in *Clean Up Lahore* days, *World Earth Day*, etc. to show how we harm the environment and to find ways of stopping this)
 - What can everyone do to help keep their city clean? (The students give their ideas.)

6. Read 'Problems' from page 7 again, with the class then ask:
 - Why do you think people come to live in cities that have all these problems? (to work, shop, trade, be near family)
 - How could you reduce the amount of rubbish you produce at home? (by trying not to waste things, using disposable items such as paper bags; reusing things and recycling as much as possible)
 - What can you and your family do to help reduce air pollution? (use the car less; walk or use public transport where possible; have a car that doesn't use a lot of fuel, or use an electric car).
7. The students can then write their ideas to answer the questions on this page in their notebooks.

Skills Book steps (Page 4 Air Pollution)

1. Let the students read the introduction, instructions, and quotations. Ask:
 - Do you agree with any of these people?
 - What do you think could be done about air pollution in cities?
 - How could ordinary people help?
 - How could businesses help?
 - What laws or regulations could help?
2. The students design a poster to inform ordinary people, businesses, or the local government what role they could play to reduce air pollution.

Skills Book steps (Page 5 Rainfall in Lahore)

1. Tell the class that they will be studying a graph showing the rainfall for each month in Lahore and that they will be required to answer some questions about it.
2. Explain that rainfall is measured each day at a weather station with a rain gauge. Show them the picture of a rain gauge. Explain that rain falls into the funnel and is collected in the measuring cylinder. The narrow neck of the funnel helps to stop the water from evaporating.
If possible, show the students a home-made rain gauge and use it during the course of the year to collect and record rainfall. See **Further activity**.
3. Read the top section of page 5 with the class and ask them to study the graph. Ask:
 - What do you think the letters across the bottom of the graph represent? (the months from January to December)
 - What do the numbers on the left-hand side of the graph stand for? (the amount of rainfall during each month—in millimetres)
4. Ask the students to point out the month that had the most rain (July) and say how many millimetres of rainfall there was during this month (200 mm). To show how much this is, ask a student to come out and mark the measurement on a wall with chalk or other erasable material.
5. Repeat this for the rainfall in November and use as a comparison between the two months.
6. The students can now answer the questions in their notebooks.

Answers to Pupil's Book page 6

1. January 2. June and July 3. January 4. June

Answers to Pupil's Book page 7

The students give their own ideas.

Answers to Skills Book page 4

The students give their own ideas on their posters.

Answers to Skills Book page 5

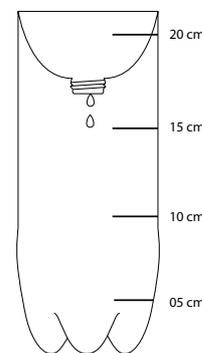
- | | | | | |
|----------|-------------|------------|----------|-----------|
| 1. July | 2. November | 3. 23 mm | 4. 4 mm | 5. April |
| 6. April | 7. October | 8. January | 9. 38 mm | 10. 30 mm |

Further activities

1. Take part in *World Earth Day* at school. To find out more visit www.earthday.org
2. Make a simple rain gauge (instructions follow) to collect and measure rainfall.

To make a rain gauge:

- a) Cut the top part off a plastic bottle.
- b) Turn this upside down and place it over the lower section of the bottle to make a funnel.
- c) Measure and mark the scale on the bottle using a permanent marker pen (solvent-based so that it doesn't wash off).



Note: The volume of rain per mm will vary, depending on the width of the bottle but you will be able to compare the amount of rain each month.

Lesson 5: Life in the city and life in a village

Learning outcomes

Students should be able to:

- compare and contrast life in a city with life in a village

Resources

- Pupil's Book pages 8–9

Pupil's Book steps

1. Introduce Kaleem who lives in Lahore and Farah who lives in Chak Daulat, a village in Punjab, using the pictures on page 8. Then ask the students to say what will be different about their lives and what will be the same. Write the students' ideas on the board on a chart as shown.

What we think will be different between life in Lahore and life in Chak Daulat		
	Lahore	Chak Daulat
Streets		
Homes		
Parents' work		
Family life		
School		
Transport		
Play		

2. Read pages 8 and 9 of the Pupil's Book to the class and ask:
 - Were you right about the differences between life in a city and village?
 - What are the things you are right about?
 - What is not the same as in the text?
 Discuss anything that might have surprised the students. Give examples and references.
3. They could then make another chart on which they record the facts about life in Lahore and Chak Daulat. Ask the students to write a sentence about anything on pages 8 and 9 that surprised them.

Further activities

1. If possible, and if your school is in a city, contact a school in a village; if you are in a village, contact a school in a city.
2. The students could correspond with each other about their school and city or village and also ask questions about these.
3. They could include drawings and photographs in their letters.
4. Students should attempt the CD activity

Answers to Pupil's Book Page 10

- A. Lahore is the capital of Punjab.
 Lahore sits on the River Ravi.
 Lahore is a very old city.
 Lahore has a population of 10 million people.

B.

M	W	O	R	A	V	C	S	I	P
O	T	L	A	H	O	R	E	N	U
N	G	E	V	P	F	I	D	J	N
S	R	C	I	T	Y	C	T	A	J
O	E	I	C	U	L	K	N	B	A
O	Y	P	Y	F	J	E	M	I	B
N	C	A	R	P	E	T	S	B	I
P	O	L	L	U	T	I	O	N	P

- C.
1. Punjab is the second largest **province** in Pakistan.
 2. The name Punjab means 'land of **five** rivers.'
 3. Most of the land in Punjab is covered by the flat plains of the **Indus**.
 4. The soil of the Indus plains is very good for **growing** crops.
 5. Crops grown in Punjab include maize, rice, potatoes, and **sugar cane/mangoes/vegetables**.
 6. Punjab has two deserts namely the Cholistan Desert and the **Thal** Desert.
 7. Nearly 60% of the people in **Pakistan** live in Punjab.

Unit 2 Water

Background knowledge for the unit

This unit develops the students' understanding and awareness of water with reference to oceans, seas, rivers, the water cycle, our water supply, floods, and pollution.

Expected learning outcomes for the unit

When they have completed this unit in the Pupil's Book and Skills Book most students should be able to:

- give the names and locations of the world's oceans and longest rivers
- describe how water becomes polluted and how this can be prevented or minimized

They will learn how to:

- use the key of a map
- interpret a diagram of the water cycle

They will begin to understand:

- the water cycle
- how the water supply for a settlement is collected, stored, and distributed
- how flooding occurs and its effects

Lesson 1: Oceans and seas

Learning outcomes

Students should be able to:

- name and locate on a map, the world's oceans
- compare a map of the world with a globe
- explain that most of the Earth's surface is covered with water

Resources

- Pupil's Book page 11
- Skills Book page 6 Globes and maps
- A globe
- A map of the world

Pupil's Book steps

1. Ask the class to name some oceans, and write these on the board. (Arctic Ocean, Atlantic Ocean, Pacific Ocean, Indian Ocean, Southern Ocean)
2. Elicit the difference between an ocean and a sea. A sea is a large body of saline (containing salt) water that may be connected to an ocean, surrounded, or almost surrounded, by land: for example, the Mediterranean Sea, the Baltic Sea, the Black Sea. Some seas have land on three sides: for example, the Arabian Sea. Oceans are large bodies of salt water that cover $\frac{3}{4}$ of the Earth's surface, e.g. Atlantic Ocean, Indian Ocean, Pacific Ocean, etc. Oceans don't have definite boundaries.
3. Show the class a globe and ask volunteers to locate an ocean then ask the following questions:
 - Which ocean is the nearest to Pakistan? (Indian Ocean)
 - Which two oceans are joined to the Indian Ocean? (Southern Ocean, Pacific Ocean)
 - Which ocean would you cross to travel from Pakistan to North America? (Atlantic Ocean)
4. The students could then list the five oceans in order of size, beginning with the smallest: Arctic, Southern, Indian, Atlantic, Pacific. Point out that there are no exact boundaries between the oceans; they flow into one another.

- Read page 11 and ask the students to try and locate the oceans on the map. Discuss the significance and use of the key. Ask volunteers to call out a number between 1 to 6. The others should look for it on the map and say which sea it is.
- The students can now complete the exercise on page 11 in their notebooks.

Skills Book steps

- Show the class a globe and a map of the world. Ask:
 - How are these similar? (They are both maps of the world.)
 - How are they different? (The map is flat but the globe is solid—shaped like the Earth.)
 - What difference do you see when tracing a journey round the world from Pakistan? (On the map you stop at the edge and then go to the other edge of the map to continue; on a globe you are able to go round till you return to Pakistan.) Let the students try this.
- Read page 6 with the class and pass the globe and map around so that they can locate Pakistan on them.
- They can then complete questions 1 and 2 of the exercise on page 6.

Answers to Pupil's Book page 11

1. Pacific Ocean 2. Indian Ocean 3. Southern Ocean 4. Arabian Sea

Answers to Skills Book page 6

1.



2. Turkey, Uzbekistan, Saudi Arabia, Sri Lanka, Japan, Taiwan, Philippines, Indonesia

Further activities

- The students will use the map of the world and the globe to help them label the countries on page 6 of the Skills Book that are not labelled on the maps.
- Set a challenge to locate all the world's seas on a map. They could choose a sea and then ask the others to find it.

Lesson 2: Rivers; Where does the water in our rivers come from?

Learning outcomes

Students should be able to:

- explain the water cycle
- explain how rivers form
- name the world's longest rivers

Resources

- Pupil's Book pages 12–13
- Skills Book page 7 Rivers; page 11 Rivers in Pakistan

Pupil's Book steps

1. Ask the students what they remember about the Earth's land, oceans, and seas. Remind them that the surface of the Earth has much more water than land. Ask:
 - How is sea water different from river water? (It is salty.)
 - Where does sea water come from? (rivers)
 - How do you think it gets salty?
2. Tell the students that the pages they are going to read will help them to find out how this happens. Ask if they know the name of the world's longest river, write the answers on the board and tell them that they will find out if they were correct when they have read page 12 of the Pupil's Book. Read the first section of page 12, including 'It's a Fact', with the students. They can then check their list of rivers. Ask:
 - Where does the River Indus come from? (the mountains of China)
 - Which sea does it flow into? (the Arabian Sea)
 - Where does it flow into the sea? (near Karachi)
3. Ask the class to read pages 12 and 13, and to look carefully at the pictures. Ask:
 - How is the air in mountain areas different from air in lowland areas? (It is colder because it is higher.) Let some volunteers explain how rain forms rivers, with the help of the water cycle diagram from page 13.
4. Ask the class to think about how the sea becomes salty. Tell them that rivers carry dissolved salts from the ground, so they are slightly salty too. As many rivers flow into the sea they carry these salts into the sea too. Ask the students to look at the water cycle diagram again and explain how the sea gets salty (As sea water evaporates—droplets are carried in the air—the salts are left behind. As more and more rivers join the sea the water becomes saltier. But the sea stays at about the same level of saltiness because some of the salts form other materials on the sea bed, some are used up by plants and animals, rainwater, and melting ice dilute the sea. Some seas are saltier than others.) To explain or investigate evaporation and condensation see **Further activities**.

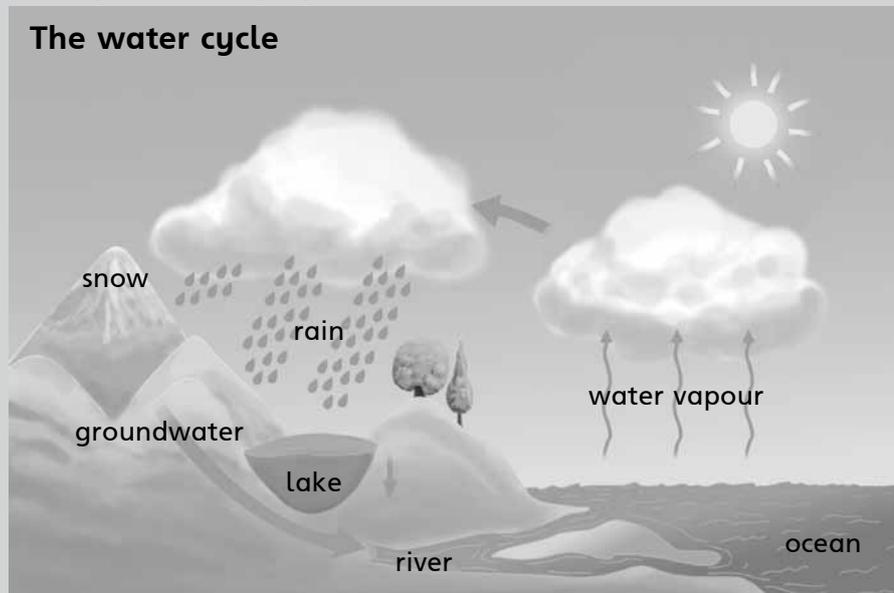
Skills Book steps (Page 7 Rivers)

1. Tell the class that they are going to read more about the water cycle and will label a diagram of it to explain how a river forms and flows to the sea.
2. Remind the students to use what they have learned from pages 12 and 13 of the Pupil's Book to help them.
3. If they find the exercise easy they could also write a sentence to say how the sea gets salty.

Skills Book steps (Page 11 Rivers in Pakistan)

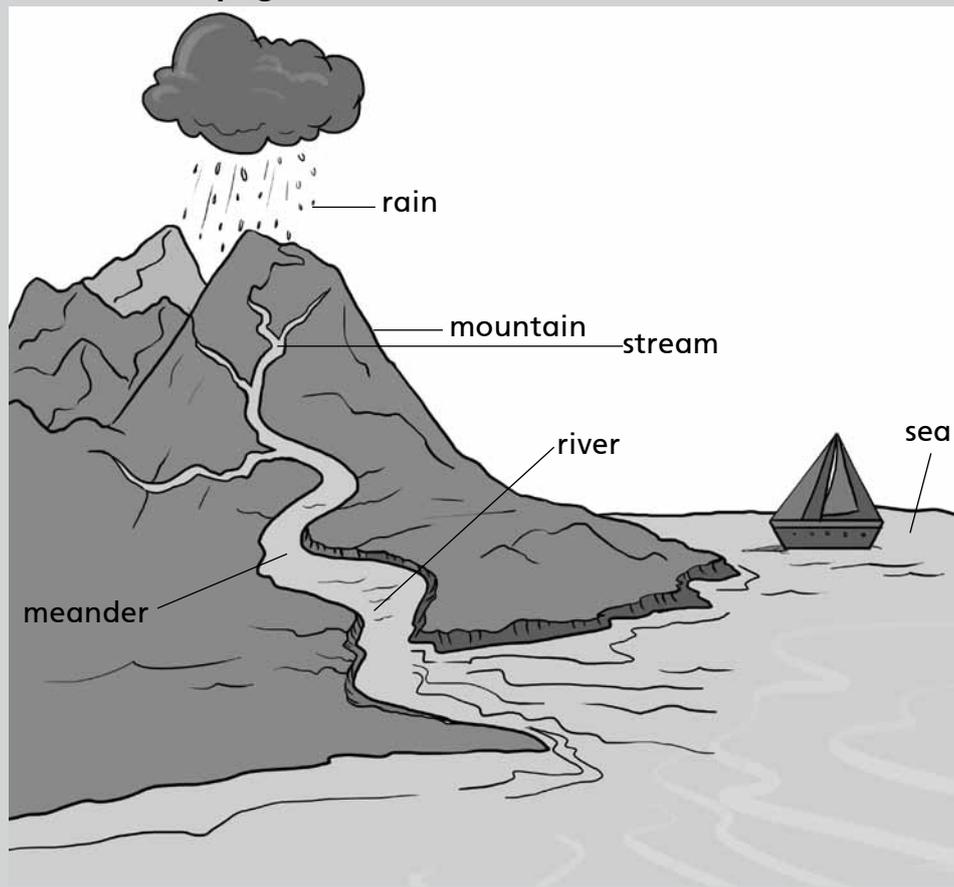
1. Ask the class to look at the map on page 3 of the Pupil's Book to locate the main rivers of Pakistan. Ask volunteers to name a river they find and to say which provinces it flows through. They should find all the rivers named on page 12 of the Pupil's Book.
2. Ask the students where each river rises (begins) and where it flows into the sea (it might join another river that is flowing into the sea—if so they should say which river it joins.)
3. The students can then complete question 1. They could compare their answers with a partner and check any that are different, before going on to question 2.

Answers to Pupil's Book page 13



The students write their own sentences about the water cycle: e.g. Rain falls on the Earth. Trickle of water from mountains join to form streams. The streams get bigger and form rivers. They flow downhill, towards the sea.

Answers to Skills Book page 7



Answers to Skills Book page 11

1.



2. a and b. The students write their ideas giving reasons.

Further activities

1. Investigate evaporation

Evaporation occurs when water becomes a vapour at temperatures below boiling point. It takes place on the surface of the water. Water is constantly changing between the three states: solid, liquid, and gas. If more molecules (tiny particles too small to see) are leaving the surface than are entering it, there is a net evaporation; if more are entering than leaving there is a net condensation (forming water). These flows of molecules determine whether water in the air evaporates, forms a cloud, falls as rain, or freezes.

The rate at which gas molecules enter the surface of liquid (such as a cloud droplet) depends upon the air pressure. The rate at which gas molecules leave the surface depends upon several factors:

- molecules escape from the surface of water more easily than from ice;
- molecules escape more easily from curved droplets;
- water molecules escape less easily from the surface of a liquid if it contains a lot of dissolved material;
- molecules escape more easily from the surface at higher temperatures.

2. Investigation

- i) Put a measured amount of water in a shallow dish (e.g. 50 ml or, if you don't have a measuring cylinder, 10 teaspoonfuls). Ask the students what will happen to the water if it is left in a warm, sunny place. After a few hours check how much water is left by measuring it using a measuring cylinder or by teaspoonfuls. There should be less water than at the start. Ask the students what they think has happened to the water. If they say it has evaporated, ask what this means and where the water has gone.
 - ii) Repeat the investigation using water to which the students have added salt stirred in until dissolved. When the water has evaporated ask them to observe what is left in the dish (salt). This helps to explain what makes the sea salty—salt remains when water evaporates.
 - iii) Some students might not realize that the water has gone into the air. If so, demonstrate that there is water in the air. Put some ice in a jar with a lid on it. Let the students feel the outside of the jar. Ask them what they can feel. (Water—the outside of the jar gets wet.) Ask them where this water comes from. Some students might think it comes from inside the jar. If so, ask how it could get out. The students may think that the water somehow gets through the glass.
 - iv) If you have time to investigate this in a science lesson, put the ice cubes in a plastic bag before putting them in the jar to stop any water getting out. There should still be condensation, unless you use a big bag that wraps the ice so thickly that it insulates it: water from the air will only condense on a cold surface.
3. If you don't have time to investigate, explain that the water on the outside of the jar comes from the air. It collects in droplets on the cold jar and trickles down.
- When it rains water droplets in clouds grow and join up to become so large that their fall speed is greater than the updraft speed in the cloud. They then fall from the cloud. If these water drops do not evaporate as they fall they land as rain.

Lesson 3: Storing and using water

Learning outcomes

Students should be able to:

- describe how water is collected, stored, and transported
- describe some irrigation methods

Resources

- Pupil's Book pages 14–15
- Skills Book pages 8 and 9 Uses of water

Pupil's Book steps

1. Ask the students to name the things we cannot live without: air, water, food. Then ask how they get water at home. (If they live in a city this is probably easy—they turn on a tap. If they live in a village they might have to collect water from a well or pump, as shown in the picture at the top of page 14.) Ask the students what water is used for and list their answers on the board.
2. Read the top section of page 14 and ask the students to check their list of the uses of water. Ask:
 - Did you miss any?
 - What can we do to make sure we have water during very dry weather? (store it)
 - Where can we store it? (in tanks or reservoirs)

- Where do people who live in very dry places get their water from? (from underground supplies such as wells)
 - What does irrigation mean? (bringing water to fields for crops)
 - How is water carried from rivers to drier parts of the country? (in canals)
 - Which is the longest canal in Pakistan? (Nara Canal in Sindh)
 - What ancient, irrigation system is still used in Pakistan? (karez)
 - What kind of well can you see in the picture on page 14, that is used for irrigation? (tube well)
3. The students can then complete the exercise from page 15.

Skills Book steps

1. Tell the students that they will find out how we change the environment when we take large amounts of water for use at home, for leisure, transport, and for farming and other industries.
2. Read the introduction from page 8, with the class. They could work in pairs for this activity so that they can discuss the questions.
3. Ask them to look at each picture on these pages and decide whether this use of water causes any harm to the environment.
4. If there is time at the end of the lesson invite volunteers to share their answers with the class and to explain them.

Answers to Pupil's Book page 15

1. The students give their own answers, which should include: drinking, cooking, washing, cleaning, leisure (e.g. swimming), transport (by sea or river boat); also industries use water for different purposes.
2. The students give their own answers.
3. The students discuss this with a friend.

Answers to Skills Book pages 8 and 9

1. It depends on the factory and what is in the water.
2. no harm
3. harm
4. No harm usually, but animals such as the Indus River dolphin can get trapped in the canals and die.
5. harm
6. harm (2, 3, 5, and 6 will vary according to the students' awareness and experience.)

Further activities

The students could make leaflets about:

1. How we can all try to keep our water supplies safe.
2. How we can avoid wasting water.
3. Access a website for details.

Lesson 4: Dams

Learning outcomes

Students should be able to:

- explain why dams are built and how they are used
- relate how dams can cause harm

Resources

- Pupil's Book pages 15–16
- Skills Book page 10 Water puzzles

Pupil's Book steps

1. Tell the students that they are going to find out about some of the dams in Pakistan and their uses.
2. Read the section on dams from page 15, with the class then ask:
 - What is a dam? (a thick wall built across a river or lake to hold the water back)
 - What is the name of the largest dam in Pakistan? (Tarbela Dam)
 - Which river is it on? (Indus)
 - Which dam provides drinking water for the people of Karachi and water for irrigation for farmers in Balochistan? (Hub Dam)
 - What are dams built for? (to hold back water so that it can be let out when needed for homes, irrigation, to produce electricity, and control flooding)
3. Ask the class to read the points about the problems of building dams on page 16 and ask:
 - What problems can the building of dams cause? (soil erosion when fast-flowing water is released; dams can burst and flood farms, factories, and homes; sometimes entire villages have to be moved to make way for the dam and lake)
4. Ask the students to give examples of dams that have caused problems: the Shakidor dam in Balochistan burst after heavy rainfall that caused flooding; 135 villages were moved when the Tarbela Dam was built, and 96,000 people had to find new homes.
5. The students can then complete the exercise on page 16 about the advantages and disadvantages of dams.

Skills Book steps

1. Remind the class how to complete a crossword puzzle: point out the clues for the words that go across the puzzle and down the puzzle. Remind the students that they should write one letter in each box.
2. Explain that the clues don't always follow 1, 2, 3, and so on. Point to 2 across on the puzzle and tell them that there isn't a word going down from 2, so there is no number 2 in the clues under the heading 'Down'.
3. Ask the students to read the clues and write the answers in the crossword puzzle.
4. They can then read question 2 and fit the words into the grid for a friend to find.

Answers to Pupil's Book page 16

Good things about dams	Bad things about dams
Give us drinking water	Can cause soil erosion
Water for hydroelectric power	Stop fish laying eggs
Water for irrigation	Danger of flooding if dam bursts
Lakes for boating and fishing	Villages might have to be moved to build dam
Control flooding	

Answers to Skills Book page 10

1. Crossword:

Across

- 2 karez
- 4 Tarbela
- 6 well
- 9 groundwater
- 11 flood
- 12 Indus

Down

- 1 Arabian
- 3 Nile
- 5 reservoir
- 7 monsoon
- 8 Pacific
- 10 dam

2. Answers will vary.

Further activities

1. Find out about other dams in Pakistan. Different groups of students could research and write about different dams, finding out which river or lake they are on, which province they are in, the nearest city, when the dam was built, and for what.
2. They could also find out whether any villages were moved when the dam was built and what happened to the people.

Lesson 5: Water pollution

Learning outcomes

Students should be able to:

- describe how water can become polluted
- explain how water pollution can be prevented
- describe how the building of dams can endanger wildlife

Resources

- Pupil's Book pages 16–17
- Skills Book page 12 The Indus River dolphin

Pupil's Book steps

1. Tell the students that they are going to find out how pollution harms our water supply and what can be done to prevent this.
2. Read the section on water pollution from page 16 with the class. Ask:
 - What does water pollution mean? (The water contains harmful things that can make it unsafe to use.)
 - What kinds of things get into the water? (chemicals, waste from factories, rubbish that people throw away, untreated sewage)
3. Let the class read page 17 then ask the following questions:
 - What are the main effects of polluted water? (people become ill if they drink it or bathe in it; it kills plants and animals; it looks and smells bad)
 - What is the main cause of pollution in the rivers in Pakistan? (sewage)
 - Which animal is being harmed by pollution in the Indus River and is now in danger of extinction. (the Indus River dolphin)
 - What else is harming this dolphin? (It gets trapped in irrigation canals.)
 - Which organization is trying to find ways to save the dolphin? (World Wildlife Fund)

Skills Book steps

1. Ask the class to read the Fact File about the Indus River dolphin, then let them close the Skills Book and ask what they have learned about the dolphin. Ask:
 - Do you think the Indus River dolphin should be saved? Let them explain their answers.
 - What could be done to save the dolphin?
2. They can then complete the exercise in the Skills Book.

Answers to Skills Book page 12

Answers will vary.

Further activities

1. Hold a class debate about whether it is right to put animals in danger by building a dam.
2. The students should consider points such as:
 - the need for water for communities
 - producing electricity for villages, towns, and cities
 - irrigating farms
 - the loss of an entire species of animal
 - how many people will benefit.

Lessons 6 and 7 Water and weather

Learning outcomes

Students should be able to:

- comprehend the meaning of weather and recognize the main types of clouds
- determine how floods are caused and the damage they create
- explain how people can prevent some floods and how to stay safe in a flood

Resources

- Pupil's Book pages 18–21

Pupil's Book steps

1. Inform the students that they are going to learn about the different types of clouds and how we can forecast the weather by observing them.
2. Ask the class to read the first two paragraphs of page 18 and to look at the picture and read about the different types of clouds. They should then read the two paragraphs below the picture. Help them with the names of the clouds by covering most of the word and revealing a section at a time: e.g. cir – ro – strat – us ; cum – u – lo – nim – bus.
Ask:
 - Which clouds bring rain? (cumulonimbus and nimbostratus)
 - Which cloud is the lowest in the sky—so low that it touches the ground? (fog)
 - Which clouds are very high in the sky? (cirrocumulus, cirrostratus, and cirrus, also contrails from aircraft)
3. Read the section on page 18 on floods and ask:
 - What harm can floods cause? (destroy crops, buildings, vehicles, and bridges; kill animals and people; pollute drinking water, which makes people ill)

4. Ask the class to look at the pictures on page 19 and to say what they think about them. They could say what they think has happened, what damage the flood caused, and how it affected the people.
5. Read the news report on page 20 with the class, or invite volunteers to read parts aloud. Ask:
 - When was the flood? (July 2010)
 - How many people were affected? (more than 20 million)
 - How many people died? (about 2000)
 - How many homes were destroyed? (more than 500,000)
 - How did the Pakistan government say it would help? (by building new bridges, roads, and homes)
6. Ask the students for four things they should do to stay safe during a flood. (Don't go near fast-flowing water; don't drink floodwater; boil drinking water; move to higher ground.)

Answers to Pupil's Book page 19

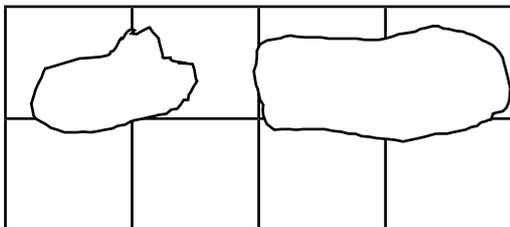
1. Day-to-day changes in temperature, rainfall, cloud, and wind in a place
2. Cumulonimbus and nimbostratus
3. Heavy rain for a long time
4. Destroy crops, buildings, vehicles, and bridges; kill animals and people; pollute drinking water which makes people ill

Answers to Pupil's Book page 21

1. 2010
2. One fifth
3. Heavy monsoon rain
4. About 2000
5. 500,000
6. They drank unsafe water because there was no clean water.
7. Thousands of crops were ruined.

Further activities

1. Look at the sky each day and try to identify the clouds.
2. Measure the amount of cloud cover:
Divide a piece of paper into eight sections to represent sections of the sky in any direction:
See the sketch that follows.
Cloud cover is recorded in eighths (called oktas). Zero means a cloudless sky, one means almost clear, and so on.
3. Look at the sky and sketch the area of cloud in each section. This will be approximate for example, This sky has 3 oktas of cloud:



4. Make a chart to record cloud cover and cloud type each day—and to record the students' weather forecasts. Here is one that has been completed for a week:

Day	Cloud cover in oktas	Main cloud types	Weather forecast for the day	Were we right?
Monday	0	none	sunny	Yes
Tuesday	1	cirrus	sunny	Yes
Wednesday	3	cirrus	sunny at times	Yes
Thursday	7	cumulonimbus	rain	No, just dull
Friday	8	cumulonimbus	dull	No—it rained

5. Students should attempt the CD activity.
 6. Ask the students to collect information about the threat to the Indus dolphin due to pollution.

Answers to Pupil's Book page 22

- A. Arctic, Atlantic, Indian, Pacific, Southern
- B. reservoir—a lake used to store water
 groundwater—water found under the ground
 dam—a thick wall built across a river to hold water back
 polluted water—dirty water
- D. Answers will vary.
- C. Answers will vary.

Unit 3 Life in another country

Background knowledge for the unit

This unit develops the students' knowledge about life in other parts of the world. They compare life in Sialkot, Pakistan with that in Sydney, Australia.

Expected learning outcomes for the unit

When they have completed this unit in the Pupil's Book and Skills Book most students should be able to:

- locate Pakistan and Australia on a globe or world map
- name the main industries of Sialkot and Sydney
- describe the cities of Sialkot and Sydney: buildings, parks, activities, etc.

They will learn how to:

- use a key on a map
- use intermediate compass directions
- use grid squares for map references

They will begin to understand:

- the main similarities and differences between Sialkot and Sydney
- how the physical geography and the history of a city affect its appearance, the people, and their work and culture

Lesson 1: What is it like in another country?

Learning outcomes

Students should be able to:

- identify the locations of Sydney, Australia and Sialkot, Pakistan
- name and locate the intermediate compass directions

Resources

- Pupil's Book page 23
- Skills Book page 13 Compass directions; page 14 Countries in Asia
- A globe
- A map of the world

Pupil's Book steps

1. Show the class a map of the world and a globe, and ask volunteers to come and point to the locations of Pakistan and Australia. Tell them that they will read about two children's home cities: one in Sialkot, Pakistan; the other in Sydney, Australia. Ask them to use the Oxford Atlas to locate these cities in the two countries.
2. Let them read page 23. Then ask:
 - What differences do you expect to find between a city in Australia and a city in Pakistan? (List the students' ideas on the board and ask them to copy the list so that they can look at it later when they have learned more about the two cities, then they can check if they were right or wrong.)
 - What do you know about Sydney? (It is the largest city in Australia, but it is not the capital—that is Canberra.)
 - What language do people in Australia speak? (English)

Answers to Skills Book page 14

- | | | | | |
|---|----------------|-------------|-------------|-----------|
| 1. Iran | 2. Afghanistan | 3. Pakistan | 4. India | 5. Nepal |
| 6. China | 7. Myanmar | 8. Thailand | 9. Mongolia | 10. Japan |
| 2 a) Answers could include: India, China, Nepal | b) south | | | |

Further activities

1. Use a compass to find the direction 'north', in the classroom.
2. Fix a card marked 'N' in this direction.
3. Mark the other compass directions. If you don't have a compass you could figure out the directions by observing the direction in which the Sun can be seen in the morning (west) and which way it seems to move across the sky during the day (towards the west) or you might be able to figure them out by using the direction faced for prayer.
4. The students could then give one another compass directions to get to different objects from the classroom or outside.

Lesson 2: Nazia's family; Lisa's family; Sialkot and Sydney—location

Learning outcomes

Students should be able to:

- identify and define the locations of Sialkot and Sydney
- compare photographs of the two cities

Resources

- Pupil's Book pages 24–25
- Skills Book page 15 Treasure map

Pupil's Book steps

1. Ask the class to read the first two paragraphs of page 24. Ask:
 - What similarities and differences can you see between Nazia's and Lisa's houses? (Discuss the different styles of the houses: height, size, features such as windows and balconies, walls, and fences.)
2. Let them continue reading the rest of the page. Ensure that they know the location of Sialkot, which province it is in, how far it is from Lahore and about other cities nearby. Ask:
 - In which direction is Lahore from Sialkot? (south)
The students could also ask one another similar questions about the positions of other cities in relation to Sialkot.
3. They can then complete the exercise on page 25.
4. Read the information from page 25. Ask:
 - In which direction is Canberra from Sydney? (south-west)
The students could ask one another similar questions about the positions of other cities in relation to Sydney. Ask:
 - What can you say about Sydney by looking at the pictures? (It has an opera house. It looks like a modern city. It is on the coast. It has a harbour.)
 - How is Sydney like Sialkot?

- How is it different? (The pictures on page 27 will help: Sialkot is an old city, although it has plenty of new buildings. Sydney is much newer, although it is Australia's oldest city.)
- How are the people and their work similar in the two cities? (The people of Sydney have come to live there from many countries but those of Sialkot are mainly from Punjab. Both cities have a mixture of religions, Sydney is mainly Christian while Sialkot is mainly Muslim. In both cities the industries include furniture making. Sydney is important for banking while Sialkot is known for its leather goods, musical instruments, surgical instruments, and sporting equipment.)

Skills Book steps

1. Ask the class to look at the map and to find the following places: Pirate Cove, Skull Bay, North Town. Ensure that they know what: a cove is (a sheltered bay); a lighthouse is (a building on a coast or just off the coast on rocks at sea, that has a bright light to warn ships of dangers such as rocks). Ask:
 - Is North Town north, south, east, or west of Hope Mountains? (west)
 - What building is in Skull Bay? (lighthouse)
 - What is the land like in the south-east of the island? (swampy)
2. Check that they understand the key and scale (the distance marked means 5 km on the ground).
3. The students can now answer the questions.

Answers to Pupil's Book page 25

1. D4/D5 2. south 3. south-west

Answers to Skills Book page 15

- | | | |
|--------------------------|---------------|--------------------------|
| a) 25 km (approximately) | b) golf | c) railway |
| d) 20 km | e) North Town | f) 25 km (approximately) |
| g) Hope Mountains | h) south-east | i) 40 km (approximately) |

Further activities

1. Divide the class into groups and ask them to collect some interesting facts about Private Cove, Skull Bay, North Town, and Hope Mountains.
2. Each group should be given one of these places to find out about. They can then read their informations to the class.

Lesson 3: Climate; People and work

Learning outcomes

Students should be able to:

- compare the climates of Sialkot and Sydney and discover what they are like
- compare people and work in the two cities
- interpret temperature and rainfall charts

Resources

- Pupil's Book pages 26–27
- Skills Book page 16 Postcard from Sydney

Pupil's Book steps

1. Tell the class that they are going to compare the climates of Sydney and Sialkot. Read 'Climate' at the top of page 26 with the class and ask them to read the temperature and rainfall charts for the two cities. Ask:
 - What can you find out about the climates of these two cities? (Sialkot is hotter in the summer but cooler in the winter. Sydney is wetter all year except for August, September, and October.)
 - Which season are these months in Sialkot? (monsoon)
2. The students can then read about People and work in Sialkot and Sydney (pages 26 to 27) and look at the pictures. Ask:
 - What do you recall about Sialkot and Sydney?
 - Which city is larger—Sialkot or Sydney? (Sydney)
 - Which city is older? (Sialkot)
3. The students can then complete the exercise on page 27.

Skills Book steps

1. Ask the class to recall what they know about Sydney. They can look at the pictures and read pages 26–27 of the Pupil's Book again to help them recollect this information.
2. They can then draw a picture of Sydney in the box on this page.
3. Let the students think about what they might see and do in Sydney, what the weather might be like and how this would affect what they would do. They can then complete the postcard.
4. Remind them to make up an address for Nazia. Ask:
 - Which county and which city will be part of her address? (Pakistan and Sialkot) They can make up the rest of her address, using what they know about Sialkot: for example, the street might be named after a famous place or building in Sialkot.

Answers to Pupil's Book page 27

1. 3.5 million
- 2 & 3. any three from footballs, other sporting equipment, leather goods, musical instruments, surgical instruments, bicycles, furniture
4. Christianity, Islam

Answers to Skills Book page 16

Answers will vary but should include information from the Pupil's Book text, maps and pictures.

Further activities

1. Find out how Lisa and Nazia could visit one another.
2. Identify the routes they might follow (use a globe or map of the world to find out which countries and seas they might cross in a plane).
3. Find out the cost and how long it would take (use airline timetables).

Lesson 4: Things to see and do

Learning outcomes

Students should be able to:

- compare the buildings of Sialkot and Sydney and find out about activities there
- explain how the two cities developed
- compare and explain transport around the cities

Resources

- Pupil's Book pages 28–29
- A map of Pakistan and one of Australia (See Pupil's Book pages 24 and 25)

Pupil's Book steps

1. Tell the class that they are going to look at some pictures of the buildings and places to visit in Sialkot and Sydney and find out more about these cities.
2. Ask the students to look at the pictures of the two cities on pages 28 and 29. Ask:
 - What do you notice about Sialkot? (The buildings do not look modern. Some are very old. Tell them that it is a very old city but, like most old cities, it also has new, modern buildings.) Ancient Greek texts mention it from about the 3rd century BCE and the remains of ancient Zoroastrian temples and many Buddhist stupas (stone structures that are said to contain relics of the Buddha) have been found there. It has been under Hindu, Buddhist, Persian, Greek, Afghan, Turk, Sikh, Mughal, and the British before becoming part of Pakistan, when the subcontinent was partitioned in 1947.
3. Ask the class what religion the temple in the picture belongs to (Hinduism). Tell them that Murray College was set up in 1889. It is now a centre for science and research but its missionaries from the Church of Scotland (part of Britain) set it up when Britain ruled the subcontinent. Ask:
 - What does the big picture tell you about Sialkot? (It has farmland, mountains, and forests around it.)
 - What do the pictures of Sydney make you think about the city? (It looks very modern but it also has buildings from the 19th century.)
4. Look at these pages to find out what there is to see and do in each city and how one could travel around each.
5. The students can then complete the exercise on page 29.

Answers to Pupil's Book page 29

Sydney	Sialkot
Built from early 1900s	Very old buildings in Old City
Modern buildings, including skyscrapers and the Opera House	New buildings but no skyscrapers
Many shopping centres	Bazaars
Cricket stadium (Jinnah Stadium)	Cricket stadium (Sydney Cricket Ground)
Other sports, such as hockey, wrestling, volleyball, golf	Other sports, such as rugby, athletics, football, water sports
No harbour as it is not on the coast	Has a harbour, not on the coast
Travel around in taxis, water taxis, buses, ferries, trains	Travel in auto rickshaws, buses, taxis

Further activities

1. Use street maps of the two cities, along with information from the internet, to plan a day in each city.
2. The class could be divided into two groups so that one half plans a day in Sydney and the other a day in Sialkot.
3. The students should attempt the CD activity.

Answers to Pupil's Book pages 30 and 31

- A. Answers will vary.
- B. Answers will vary.
- C.
1. Sydney is the largest city in Australia. True
 2. Sialkot is in Balochistan, Pakistan. False. It is in Punjab, Pakistan.
 3. Sydney is the capital city of Australia. False. Canberra is the capital.
 4. In both cities it rains mostly in June, July, August and September. False. In Sialkot it rains in July and August; in Sydney from January to June.

Unit 4 Where I Live

Background knowledge for the unit

This unit helps the students to develop an understanding of their neighbourhood, their school, the street they live in, and their village, town, or city. They compare life in different neighbourhoods.

A local study based on Karachi is used in this unit as an example of how you could carry out a local study with your class in the neighbourhood of the school and/or where the students live.

It begins with the street in Karachi where a boy named Hamza lives and includes some information about his house. This is contrasted with lower income areas of Karachi, including a school.

Also included is Hamza's school and his ideas for improving the grounds; this provides an opportunity for developing mapping skills, through drawing a plan of part of the school grounds. From the home and school the study moves outwards to other parts of the city and focuses on parks. You could help the students to carry out a similar survey about a park near the school and to draw a plan of the park.

Traffic is an important consideration for any city: the problems it causes and how to manage the flow of traffic. There is a sample traffic survey by Hamza's class—this is a useful example for your own class traffic survey, which need not be carried out near a main road, as this could be dangerous. It might be possible to watch the traffic from a window or from inside the school grounds.

The final part of the unit is about leisure facilities. The students read about the leisure facilities where Hamza lives and are encouraged to write and draw those in their neighbourhood. It includes Hamza's map of a town that he designed, which can be used as an example to start the students off with their own town designs, and help them to think about all the facilities a town needs.

Expected learning outcomes for the unit

When they have completed this unit in the Pupil's Book and Skills Book most students should be able to:

- describe the streets and buildings near their homes and school
- discuss transport and leisure facilities in their town, city, or village

They will learn how to:

- draw a plan of a place they know, using a scale, key, and symbols to represent what is on the ground
- represent their ideas for improving their school grounds or a local park
- design a town and draw a map of it with a key

They will begin to understand:

- how to draw maps
- how people can change their neighbourhoods

Lesson 1: My street

Learning outcomes

Students should be able to:

- explain how to carry out a neighbourhood study through an example based in Karachi
- express ideas about the neighbourhood: what is good and what could be improved, and how

Resources

- Pupil's Book page 32
- Skills Book page 17 Pollution I–spy
- Some photographs of the streets where the students live and contrasting parts of their town, city, or village

Pupil's Book steps

1. Tell the class that they are going to learn how to study their own neighbourhood and describe it for others who don't live there. Explain that they will read an example about another student's home and neighbourhood and that this will help them to describe their own.
2. Ask the class to read page 32 and look at the pictures. Ask:
 - Where does Hamza live? (Karachi, Pakistan)
 - What does he tell you about his home and street? (His home has no garden but his mother grows plants in pots. The street is long, wide, and has trees. It is a clean street but has cars parked in it.)
3. Ask if Hamza's home is in a poor part of Karachi or not and how they can tell.
4. Invite volunteers to talk about their own homes and streets in the same way that Hamza has done. If they have photographs of their home or street they could show these as they talk about them. Ask if they like living there, what they like and what they don't like about the place. These areas could be compared with a contrasting part of the town or city.
5. The students can then complete the exercise.

Skills Book steps

1. Read the introduction to this page with the class and ask them to look at the pictures. Help the students to read the captions. They should then think about these types of pollution and tick the pictures of the pollution they find in their neighbourhood.
2. Ask the students to decide, from the tick marks they put on the page, how polluted their neighbourhood is: very polluted, a little polluted, not polluted at all. They should justify what they say with evidence.
3. The students can then talk to a classmate about what could be done to eliminate the pollution in their neighbourhood: for example, having a rule that cars must have at least four people in them—to reduce the number of journeys by encouraging car-sharing; persuading manufacturers to reduce pollution from their factories; showing farmers ways of farming using smaller amounts of pesticides and fertilizers; writing to local government officials to ask them to refurbish a park; having 'clean up' days to collect litter; persuading bus companies to use 'green' vehicles.

Answers to Pupil's Book page 32

Answers will vary.

Answers to Skills Book page 17

Answers will vary.

Further activities

1. The students could discuss ways of reducing traffic pollution.
2. Topics they could discuss include: high taxes on car fuel; free parking for cars that use 'green energy' (e.g. electric cars that can be recharged); a rule that cars must have at

least three passengers; tolls on roads in cities so that people pay to drive in city centres; a rule that you can only use your car on certain days—different day for different people or perhaps alternate days; 'park and ride' systems—where people can leave their cars in a safe place not too far from the city centre, where there is a very frequent bus service so that they don't have to wait long).

3. Ask them to make a list of the advantages and disadvantages of each idea they discuss.

Lesson 2: My school

Learning outcomes

Students should be able to:

- carry out and write a local study about their school, based on an example in Karachi
- interpret maps with a key and symbols

Resources

- Pupil's Book page 33
- Skills Book page 18 My school

Pupil's Book steps

1. Review what the students read about Hamza's home in Karachi. Tell them that they will now read what he wrote about his school and how its grounds could be improved.
2. Ask them to read the top section of page 33, study the plans, and read the captions. Ask:
 - How does Hamza get to school? (in his father's car)
 - How long does it take for him to get there? (10 minutes)
 - Is your journey to school similar or different? Explain.
 - What does Hamza like about school? (He has many friends and the teachers are good. He enjoys sports and the nature club.)
 - What sports does Hamza like best at school? (cricket and running races)
 - What do they do at the nature club? (learn about plants and animals and look after them, make their own special garden area, grow plants, observe insects)
 - What does the teacher want them to do with the school garden? (make it bigger and to draw plans of their ideas)
3. Ask the students to look at Hamza's plans. Ask:
 - How does Hamza want to change the garden?
4. Discuss the picture of the Garage School in Karachi. Ask:
 - What is unusual about this school?
 - Why did this woman start a school in her garage?
 - How is it different from our school?

Skills Book steps

1. Take the class on a walk around the school building/s and grounds and ask them to observe things around them, and take special note of anything they think is good, and why. Ask them to do the same for anything they think is bad. To help them remember they should make notes in a notebook or paper clipped onto a clipboard. They could work in pairs for this activity.
2. Back in the classroom, discuss their ideas. Ask a pair of students to present their report to the class; the others could say whether or not they agree and add anything else they

- noticed. It will be useful to write any unfamiliar words on the board as this will help the students to complete the exercise in the Skills Book.
3. Ask the students to think of different parts of the school that they observed as they complete the chart in the Skills Book.
 4. At the end of the lesson ask the class for their ideas on ways to improve the school. List these on the board and ask the students to vote for the one they think is the best.

Answers to Pupil's Book page 33

Answers will vary.

Answers to Skills Book page 18

Answers will vary.

Further activities

1. If possible, help the students to plan what they can do to improve their school.
It could be as simple as tidying an area, picking up litter, making signs to remind others to put litter in a bin or put things away tidily. They might be inspired by Hamza's school's Nature Club and the Nature Garden.
2. They could design a Nature Garden for their school with permission from the head.
3. They could grow plants at home in gardens or pots.

Lesson 3: My neighbourhood—parks

Learning outcomes

Students should be able to:

- define the importance of parks in cities
- determine ways in which people can look after parks
- interpret a map with a key and symbols

Resources

- Pupil's Book pages 34–35
- Photographs or calendar/magazine pictures of parks and gardens

Pupil's Book steps

1. Review what the students learned about Lahore in Unit 1. They could look at the photographs on page 4 again. Ask:
 - What did you notice about Lahore when you looked at the photographs? (It looks very green because of all the gardens.)
 - How do you think these gardens help the people there? (They are places where people can relax, feel peaceful and enjoy nature, and forget about traffic, noise, and pollution.)
2. Discuss gardens and parks they have visited or read about. Display photographs of the parks and gardens and allow the students time to look at them and talk about what they can see there. Ask:
 - How does it feel to move from the street into the park or garden and how does it change the way you feel?

3. Read page 34 with the class and ask how Hamza and his uncle feel about the parks in Karachi and Lahore, and how they can tell: for example Hamza's uncle says that parks are important because they help people to relax and learn about nature; he shows this by saying he will visit Hamza when the new park is completed.
4. When the students look at the plan for the new park, invite volunteers to name something that will be in the park: trees, paths, grass, seats, flowers, a playground, a pond or lake, and a car park. Ask:
 - Are all these things good to have in a park? Why?
 - Can you think of anything else that would be good to have in a park? (for example, a place to buy snacks and drinks, litter bins, a fountain, places that are shaded from the sun, places for picnics)
 - Why are parks called the 'lungs' of cities and towns? Let the students know that they can find the answer on page 35.
5. They should complete the exercise on page 35.

Answers to Pupil's Book page 35

1. flowers or shrubs
2. 18
3. flowers or shrubs on each side of the path, with grass beyond them, trees, a pond to the right
4. Grass, 2 seats, flowers or shrubs, and a tree
5. Answers will vary.

Further activities

1. Divide the class into groups of four to plan a park.
2. The students could draw the features for the park on separate pieces of paper and place these on a large sheet of paper. They could move them around until they have the best layout for their park.
3. They then draw a plan for the park, using symbols for the features they have chosen.

Lesson 4: My neighbourhood—traffic

Learning outcomes

Students should be able to:

- conduct a traffic survey
- use a tally chart to record results for the survey
- interpret a tally chart

Resources

- Pupil's Book pages 35–36

Pupil's Book steps

1. Inform the class that they are going to learn about the traffic in Hamza's neighbourhood from a survey he did at school, and also learn how to conduct a traffic survey. Ask the students to give some examples of the types of vehicles that they see in their neighbourhood.
2. Let them look at the picture on page 35. Ask:
 - What does it tell you about Karachi? How would this affect people's journeys to work or school?

3. Read the section on page 35 about Hamza's traffic survey in Karachi. Ask:
 - How would you count all the vehicles?
 - How would you record what you counted so that you do not forget?
 - For how long would you count the traffic? (one hour)
4. Explain the tally chart. Different students could record different types of vehicles. Each time they see the vehicle (for example, a truck) they put a tally mark under the heading 'truck'. Explain that the fifth tally mark is a line drawn through the first four. Demonstrate this on the board:

| = 1 || = 2 ||| = 3 |||| = 4 +|| = 5

Ask:

 - How does this make it easier to count the numbers of vehicles you have recorded? (Count in fives and then count the single vehicles.)
5. Ask the students to study the tally chart and find out how many cars went past in one hour (4 sets of 5 = 20).
6. They can then answer the questions about the tally chart.
7. Ask the students to name the different types of vehicles they see in the picture of Karachi, on page 36. Ask:
 - Is this like our neighbourhood?
 - How is it similar?
 - How is it different?
 - How does this affect the air in Karachi? (polluted with fumes)
8. The students can then answer the questions about the school's neighbourhood.

Further activities

1. Make a chart like the one on page 35 to record vehicles that pass the school. You might need to change the headings.
2. Ask the students if there are any other kinds of vehicles they think they will see that are not listed in the chart: for example, buses, vans, etc.
3. Find a safe place to carry out a traffic survey. A busy road is interesting but could be dangerous unless you can find a place that is not too near the traffic.
4. You should follow your school's safety guidelines. If necessary watch the traffic through a window: pairs or small groups of students could take turns to count the vehicles for, say 10 minutes each.

Lesson 5: My neighbourhood—leisure

Learning outcomes

Students should be able to:

- identify and define the importance of leisure facilities in towns and cities
- interpret a map with symbols and a key

Resources

- Pupil's Book pages 36–37
- Skills Book page 19 Things to do in my neighbourhood; page 20 Plan your own town
- A map of the school's neighbourhood

Pupil's Book steps

1. Inform the class that they are going to find out about what there is to do in Hamza's neighbourhood. Ask:
 - What does 'leisure' mean? (things done for enjoyment, such as sports, going to the cinema, or visiting a park)
 - What kinds of leisure activities are there in your neighbourhood?
2. Let the students look at the pictures and read the text at the bottom of page 36. Ask:
 - What do Hamza's parents do for leisure? (go to the gym, go shopping)
 - What does the family do together? (go to the beach, visit eating places)
 - What sport does Hamza enjoy? (cricket)
 - What sport do his sisters like to participate in? (ice-skating)
3. Read the first paragraph of page 37. Ask:
 - How is Arif's village different from Karachi? (It doesn't have a park, playground, or cinema.)
 - Does it need a park or playground?
 - What can Arif do instead?
4. Read about Hamza's school work on town plans, with the class. Ask the students to look at Hamza's plan and read the key. Ask:
 - Do you think this town has enough shops?
 - Do you think it needs any other places for people to get everything they need and enough places for leisure? (You could discuss how the town provides for traffic, parking, buying fuel, and other forms of transport, such as a railway.)
5. The students can then complete the exercise.

Skills Book steps (Page 19 Things to do in my neighbourhood)

1. Explain that this page provides a chart on which the students can record the places they can go to in their neighbourhood. Ask them to think about the things they like to do for leisure and what they can do in their neighbourhood.
2. Let the students work in pairs on question 1. They can read it together and check one another's answers.
3. Ask them to list anything else they can do in their neighbourhood that is not listed on the chart. Ask:
 - Is there anything else you would like to see in your neighbourhood?
 - What would the advantages of this be?
 - What about any disadvantages? (Consider noise, traffic, crowds, litter, and so on.)
4. The students can then think about anything in their neighbourhood which could be improved. Ask them to consider what would improve it.

Skills Book steps (Page 20 Plan your own town)

1. Remind the class of the main points they have learned about the important buildings and other places a town needs. Inform them that they will have the opportunity of planning their own ideal town—a town they would like to live in.
2. Ask the students to list the things their town must have and then to consider other things they would like it to have.
3. They should now look at page 20. Ask them what the area already has: roads, a railway, and in the north-east, a river and forest.
4. Discuss the key and ask the students to decide where in the town, the houses and buildings will be so that everyone can get to them without confronting traffic jams. They should notice that some roads have 'dead ends' (traffic cannot go through them but has

to stop and turn around at the end—these could become congested at busy times) They should also think about how to look after the environment in the town: for example, by including parks and open spaces and taking care about anything that might pollute the river.

Answers to Pupil's Book page 37

Answers will vary.

Answers to Skills Book page 19

Answers will vary.

Answers to Skills Book page 20

Answers will vary.

Further activities

1. Copy the town plan from the Skills Book onto a large sheet of paper or card on which the students can add the features of the town.
2. They could first discuss the ideas they drew in the Skills Book and vote for the buildings and other features that should be included.
3. They could hold 'planning meetings' to decide where to put them.
4. Different students could put forward different points of view: for example, businesses, developers who want to make money, people who live there or local governors who want their town to be good for the people who live there, to provide work for them, and perhaps to attract other people to come and settle there.

Answers to Pupil's Book page 38

- A. Answers will vary. The students should describe the problem clearly and think carefully about what should be done about it before writing their letters.
- B. Answers will vary. The students might promise to put all their litter in bins, pick up litter where it is safe to do so and treat the town's buildings and parks with care.
- C. Answers will vary but should include ideas that have been covered in this unit.

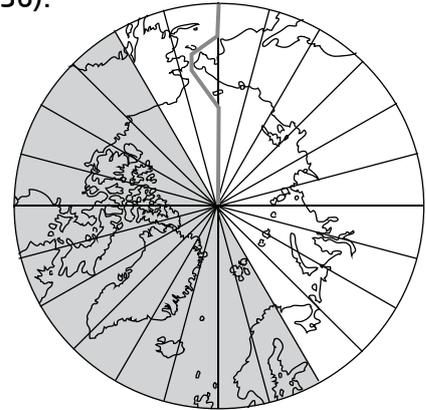
Unit 5 Our neighbours

Background knowledge for the unit

This unit helps the students to learn about the countries that border Pakistan: India, Afghanistan, China, and Iran: geographical features (such as rivers, deserts, mountains, and coasts), wildlife, people, culture, cities, trade, and industry.

There are many opportunities to practise compass directions and to use latitude and longitude references to locate places and to identify their locations. This can be linked with work on Unit 8 on the Solar calendar, (see Skills Book page 36).

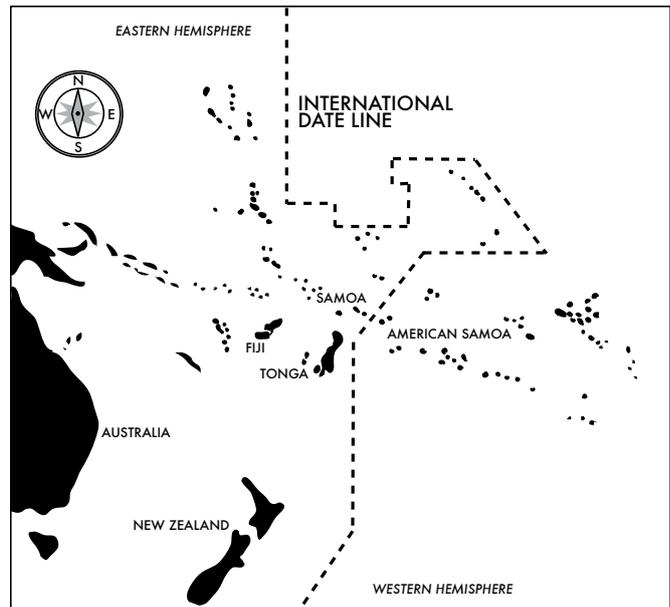
Lines of longitude, which run around the Earth through the Poles, are marked in degrees east or west. To measure time, the day has been divided into 24 segments (hours). In a complete rotation, the Earth spins through 360° , therefore in an hour it spins through $360 \div 24 = 15$ degrees (approximately). Each 15 degrees marks a time zone. Lines of longitude are marked in degrees, beginning with 0° at Greenwich, London—chosen because of the observatory there, at an international meeting of scientists held in 1884 in Washington DC.



The Earth viewed from the North Pole, showing the time zones

Longitude 180°E and 180°W are the same line because this is halfway round the Earth, so the line is just Longitude 180° . This is the International Date Line: the date changes. Longitude 180° passes through some islands but the International Date Line has been drawn so that it goes around any islands.

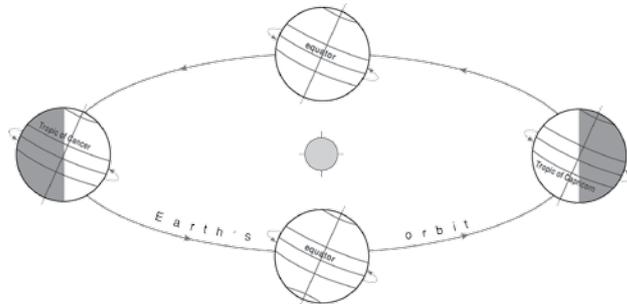
For simplicity most countries use the same time throughout the country but large countries such as the USA have different time zones. Lines of latitude run around the Earth horizontally, the Equator being at the widest point. Because of the Earth's tilt the Equator is always nearer to the Sun than are other parts of the Earth, whatever the time of day and whatever the season (see Skills Book page 36). The nearer a place is to the Equator the less its seasons change. Places farther from the Equator have greater differences between summer and winter and have spring and autumn seasons between summer and winter.



The Earth's orbit round the Sun

This is the basis for the solar year, which is split into 365 days. Since the orbit takes about 365.25 days an extra day is added to every fourth year (leap year) except when this falls on a century year such as 2000. Winter in the northern hemisphere occurs when that part

of the Earth is tilted away from the Sun. At the same time the southern hemisphere is tilted towards the Sun and has summer.



Expected learning outcomes for the unit

When they have completed this unit in the Pupil's Book and Skills Book most students should be able to:

- locate and identify the sizes and shapes of the countries neighbouring Pakistan
- describe the different cultures of Pakistan's neighbouring countries and compare similarities and differences

They will learn how to:

- use a compass
- use latitude and longitude references to locate places and to describe the positions of places on a map

They will begin to understand:

- intermediate compass directions
- latitude and longitude
- how a country's physical geography affects the crops that can be grown, and the lives of the people

Lesson 1: Which countries have a border with Pakistan?

Learning outcomes

Students should be able to:

- name and locate Pakistan's neighbouring countries
- interpret a political map
- use intermediate compass directions

Resources

- Pupil's Book page 39
- Skills Book page 21 Latitude and Longitude
- A large, wall map of the world, Asia, or the Middle East
- A globe
- A compass

Pupil's Book steps

1. Ask the class if they can name any countries that share a border with Pakistan. Check that they know what a border is (where one country ends and another begins). Ask if any of them have visited these countries and invite these students to tell the class which parts of the country they visited and their experiences.

2. Ask the class to look at the map on page 39 and read the text beside it. They should also read 'It's a Fact'. Ask them to name the largest of Pakistan's neighbouring countries (China). Write this on the board and then ask them to help you to complete the list in order of size, ending with the smallest: China, India, Iran, Afghanistan. Ask:
 - Where does Pakistan belong in this list? (between Iran and Afghanistan)
 - What interesting fact can you find on this page about China? (The Gobi Desert is larger than Pakistan and getting larger. To stop this, the Chinese have planted trees around the edges of it.)
 - What can you see on the map that helps you to describe directions from one place to another? (the compass rose)
 - Which directions are marked on the compass rose? (north, south, east, and west)
 - What other directions could you use on a compass? (north-east, north-west, south-east, south-west) Invite volunteers to come out and point to these directions on the wall map of the world, Asia, or the Middle East. If you have a compass or have marked the directions north, south, east and west in the classroom, the students could also point to the actual directions of these.
3. The students can now complete the exercise.

Skills Book steps

1. Show the class a globe and point out the lines of latitude. Let some of them trace the Equator round the globe with their finger as the others watch. Ask another to trace a line of latitude close to the North Pole yet another to trace one close to the South Pole. Ensure that the students know where the North and South Poles are. Ask:
 - Are all lines of latitude of the same length? (No—the closer to the Equator the longer they are.)
 - Why is this? (Lines close to the North or South Pole are short because they do not circle the whole distance around the globe. Make sure that the students know that lines of latitude go round the globe horizontally—across a map).
2. Point out the Equator and the number 0 (degrees) and explain the degrees symbol (°). Explain that the Equator is the longest line of latitude because it circles the globe. They could then locate Pakistan on the globe or on a map of the world and find a line of latitude that goes through it—30°N. They can also see this on the map on page 21 of the Skills Book. Point out that lines of latitude are numbered from the Equator to each pole.
3. Ask a volunteer to trace a line of longitude around the globe. Point out that these go through both poles. Let others trace lines of longitude while the rest of the class watch. Ask:
 - Are lines of longitude all the same length? (Yes—they all go round the globe through the poles.)
4. Ask a student to locate the line of longitude marked 0°. Tell them that a British scientist first chose the observatory at Greenwich in London as a place along this line and international scientists at a meeting in 1884, decided to keep it. Explain that lines of longitude are numbered from this line towards the east and towards the west—up to 180°, which is in the Pacific Ocean. Ask students to locate a line of latitude that goes through Pakistan (e.g. 70°E).
5. Read the instructions on page 21 with the class and ask them to look at the map on this page. They should be able to find where the lines 30°N and 70°E cross, in Pakistan.
6. Ask them to follow 80°E and name the countries it passes through: India, China, Kazakhstan. Repeat this for 20°N (Sudan, Saudi Arabia, Oman, India)
7. The students can then answer question 2.

Answers to Pupil's Book page 39

1. India, China
2. Afghanistan, Kazakhstan
3. Any two from Sri Lanka, Malaysia, Indonesia
4. Afghanistan
5. Mongolia, Nepal
6. South China Sea, East China Sea
7. Arabian Sea

Answers to Skills Book page 21

2. a) India b) China c) Iran d) Turkmenistan

Further activities

1. The students could play a game in which they give a partner a latitude/longitude reference and he/she tries to find this on a map of the world, and says which country or sea it is near. Remind them that the first number is always the latitude.
2. Some of them might be able to describe a journey around the world by giving latitude and longitude references to the places they visit; their partner should then make a note of the places and describe the journey.

Lesson 2: Country fact file; India

Learning outcomes

Students should be able to:

- list some facts about Pakistan's neighbouring countries
- identify and describe the physical geography of India

Resources

- Pupil's Book pages 40–41
- Skills Book page 23 Country puzzle
- Photographs of geographical features in India, such as the Himalayas, Karakoram, and other mountain ranges, the plains near the north, the Thar Desert, the coasts, the River Ganges

Pupil's Book steps

1. Inform the students that they will be learning some facts about Pakistan's neighbouring countries. Then they will learn about India first. Tell them that you will begin with a chart about all of Pakistan's neighbours. Ask the students to look at the chart on page 40 and to use it to answer some questions:
 - Which is the main river in Afghanistan? (Helmand)
 - Which is the highest mountain in China? (Mount Everest)
 - What is the capital city of Iran? (Tehran)
 - What two colours are on the flag of China? (red and yellow)
2. Ask the class if any of them have been to India. If possible, show them pictures of places in India and tell them a little about these places.
3. Let the students read the section on India on pages 40 and 41. Ask them to read 'It's a Fact' also. Ask:
 - How much bigger than Pakistan is India? (four times as big)
 - Name the sea/s and ocean/s around the coast of India. (Arabian Sea, Indian Ocean, Bay of Bengal).

- Does India have jungles? (Yes—it has jungles in the north-east, one of which is the world's largest, mangrove forest.)
4. Ask the students to look at the map of India and to read the information again to help them complete the exercise on page 41.

Skills Book steps

1. Explain that this page will help them to recognize the shapes of Pakistan and its neighbouring countries on a map; to learn the names of their capital cities; what their flags look like. Tell the students that Pupil's Book pages 39 and 40 will help. Tell them to use these pages to help spell the names of the countries and cities.
2. Allow the students to compare the outline maps to their country's with the help of the Pupil's Book (pages 39 and 40). Ask:
 - Which is the easiest country to identify?
 - What made it easy? The students should then write the name of this country on its outline and continue writing the names of the other countries too.
3. Ask them to write the name of the capital city of each country next to the appropriate dot.
 - Which flags do you recognize without checking in the Pupil's Book? They could write the names of those they know and then look up the others.

Answers to Pupil's Book page 41

Answers will vary.

Answers to Skills Book page 23

1. A. China B. Pakistan C. India D. Afghanistan E. Iran
2. A. Beijing B. Islamabad C. New Delhi D. Kabul E. Tehran
3. Pakistan, Afghanistan, India, China, Iran

Further activities

1. Help the students to find out more about the physical geography of India.
2. Make a wall display showing photographs and information about some of the mountains, deserts, rivers, and plains of India.
3. Include a map so that the students can link the places in the pictures to their locations on the map.

Lesson 3: India

Learning outcomes

Students should be able to:

- identify some physical features of India
- use latitude and longitude references to locate and describe their locations

Resources

- Pupil's Book pages 41–42
- A globe

Pupil's Book steps

1. Ask the class to read page 41, beginning with the paragraph about the people of India. Ask:
 - What have you found out about the people of India? (There are people who follow many different religions and speak several different languages.)
 - What have you learned about wildlife in India? (It is the only country in the world that has both lions and tigers. Its national bird is the peacock.)
 - What does 'endangered animal' mean? (animal in danger of becoming extinct)
 - Which animals in India are endangered? (lion and tiger)
2. Review the information about the lines of latitude and longitude. Ask:
 - What are the main crops of India? (rice, wheat, cotton, tea, jute, potatoes, sugar cane)
 - What are the main industries? (developing computer software, steel, chemicals, cement, machinery, and textiles) The students could compare these with the industries of Pakistan—they are similar.
 - What have you read about the climate of India? (The coldest months are January and February, summer is from April to June, and the monsoon season is between June and September.)
3. Tell the students that they will learn more about India, beginning with a map that has lines of latitude and longitude on it. Ask them to look at the map on page 42 and to name two lines of latitude that pass through India (10°N and 20°N). Ask them to name a line of longitude that passes through India (80°E). Ask:
 - Which city does this line of longitude pass through? (Chennai)
4. Read page 42 with the class and ask them to identify Chennai on the map. They should see the line of longitude 80°E passing through it. Ask them to follow this line north until they come to another city. Ask:
 - Which city is this? (Kanpur, in India)
5. Let the students follow the line of latitude 10°N from west to east and stop when they come to a city. Ask:
 - Which city is this? (Madirai)
6. Ask them to find which line of latitude is closer to New Delhi— 20°N or 30°N . (It is 30°N .)
7. The students can then complete the exercise.

Answers to Pupil's Book page 42

1. Chennai 2. Madirai 3. 30°N

Further activities

1. Set a 'treasure trail' around the map on page 42 of the Pupil's Book, using latitude and longitude references.
2. The students find and name the cities and then name something interesting in or near each city.
3. They will need to use reference books or the internet for this. An atlas, such as the Oxford School Atlas for Pakistan, will be useful.

Lesson 4: China

Learning outcomes

Students should be able to:

- describe the physical geography of China
- list some facts about the people, wildlife, main crops, industries, and culture of China
- identify and describe an endangered animal in China
- use latitude and longitude references to locate places and to identify their locations

Resources

- Pupil's Book pages 43–45
- Skills Book page 22 The giant panda; page 26 Values

Pupil's Book steps

1. Let the students know that they will now learn about the largest of Pakistan's neighbouring countries. Ask:
 - Which country do you think it is? (China)
2. Let the students look at the map on page 43 and read about China. Ask:
 - What have you found out about the land in China? (One third of it is mountains. Many of these are very high. They include Mount Everest, the tallest mountain in the world, which is on the border between China and Nepal. It has many rivers, including the Yangtze and Yellow River.)
 - What city is the capital of China? (Beijing)
 - Which line of latitude is Beijing closer to 40°N or 20°N? (40°N)
 - Is this farther north or farther south than Islamabad? (They can check in Skills Book page 21—it is farther north.)
 - How many people live in China? (about 1.3 billion—more than any other country on Earth)
 - What have you found out about the wildlife in China? (Giant pandas only live in China and are endangered, but the Chinese are working hard to save them.)
3. The students can now complete the exercise on page 43.
4. Ask the students the following questions:
 - Which language do people in China speak? (There are many Chinese languages but the official one is Mandarin.)
 - What religions do you think they follow? (many, including Buddhism, Christianity, Islam, and Taoism)
5. Ask if they have checked to find out where any goods they and their families buy come from. They could check when they go home—it is likely that there will be something from China because so many different goods are made there. Ask the students to read page 44, look at the pictures, and read the captions to find out more about the people of China, its crops, and industries. Ask:
 - Do you think China is a modern country? (Explain that it is modern in some ways—the cities are modern and there is modern industry and transport but life in the country is more traditional. Traditional farming methods are used for growing crops such as rice.)
 - What problems are industry and farming causing in China? (Logging and clearing the land for farming are destroying plant and animal habitats and factories are polluting the air, water, and land.)
 - What is being done about this? (The Chinese government has created nature reserves.)
6. The students can now complete the exercise on page 45.

Skills Book steps (Page 22 The giant panda)

1. Ask the students if any of them has seen a giant panda in a zoo. If so, what did they learn about it? If not, ask whether they know anything about giant pandas. Make a note of their answers on the board. Also ask what they would like to find out about these animals. They could copy them onto a chart like the one shown, leaving space to write what they learn:

What we know about giant pandas	What we would like to find out about giant pandas	What we learned
They only live in China. They are endangered.		

2. Read Skills Book page 22 with the class and explain the task. They could work in groups with one student acting as the reporter and the others giving verbal answers. Then they can write their answers.
3. Ask the class to complete the chart about the giant pandas by filling in the third column. See **Further activities**.

Skills Book steps (Page 26 Values)

1. Inform the class that this exercise requires them to think about endangered animals. Divide them into small groups.
2. Tell them that they will read some statements about endangered animals which they will discuss with their groups and decide whether or not they agree with these statements.
3. In their notebooks they should write the headings at the top of the two columns, as shown on this page and then read and discuss each statement in turn. They will then decide whether or not they agree and write each answer in the appropriate column.
4. Invite feedback from different groups.

Answers to Pupil's Book page 45

1. a place where things are made
2. fabrics and cloth
3. making a place dirty and unsafe
4. our natural surroundings
5. a place where plants and animals live
6. the number of people in a place
7. cutting down trees to use the wood to make things
8. an area with little or no rain and few plants
9. land that is set aside to protect plants and animals

Answers to Skills Book page 22

1. no 2. bamboo 3. about 1600
4. The forests where they live are being cut down.
5. Zoos are breeding pandas to make sure they do not die out.
6. The Chinese government has created special nature reserves where the pandas can live safely.

Answers to Skills Book page 26

Answers will vary.

Further activities

1. Tell the students about zoos that keep giant pandas: for example, Beijing Zoo, China; Taipei Zoo, Thailand; Oji Zoo, Kobe, Japan; Adelaide Zoo, Australia; Edinburgh Zoo, Scotland UK; Chapultepec Zoo, Mexico City, Mexico; Memphis Zoo, USA.
2. You could also try growing some bamboo shoot—the only food giant pandas eat.
3. Hold a class debate about the question 'Should we save endangered animals?' and vote on it.

Lesson 5: Afghanistan

Learning outcomes

Students should be able to:

- identify and describe the physical geography of Afghanistan
- establish facts about the people, wildlife, main crops, industries, and culture of Afghanistan

Resources

- Pupil's Book pages 45–46
- Skills Book page 24 Deserts

Pupil's Book steps

1. Tell the class they are going to learn about another of Pakistan's neighbouring countries and that this one's highest mountain is Mount Noshaq, its longest river is the Helmand River. Ask:
 - Can you guess which country it is?
2. Ask the students to look at the map on page 45 and read the text. Ask:
 - What have you learned about the land in Afghanistan? (There are tall mountains and many deserts but there are also many rivers. It has no coast.)
 - What is the climate like? (It has hot, dry summers and cold winters.)
 - What are the main crops? (pomegranates, grapes, apricots, melons, wheat, cotton, and nuts)
 - Which countries have borders with Afghanistan? (Turkmenistan, Uzbekistan, Tajikistan, China, Pakistan, Iran)
 - Which countries are to the north of Afghanistan? (Turkmenistan, Uzbekistan, Tajikistan)
 - Is Afghanistan bigger or smaller than Pakistan? (a little smaller)
3. Read page 46 with the class, let them look at the pictures and read the captions. Ask:
 - What can you find out about Afghanistan from the pictures? (It has mountains with wide valleys and rivers.)
 - Which dam was built on the Helmand River to provide electricity and water for crops? (the Kajakai Dam)
4. The students can then complete the exercise on page 46.

Skills Book steps

1. Elicit the definition of 'desert' from the students. (area with very little rainfall and few plants and animals). Ask:
 - Can you name any deserts in Pakistan? (Thal, Cholistan, Kharan, Thar) Write these on the board and then discuss the deserts in our neighbouring countries: Afghanistan (Registan), China (Gobi), India (Thar), and Iran (Dasht-e-Kavir, Dasht-e-Lut).
2. Read the introduction to page 24 with the students and ask them to look at the map. Ask:
 - Which country has the deserts numbered 5 and 6 in it? (Iran)
 - Which country has desert number 4 in it? (Afghanistan)
 - Which country has deserts numbered 1, 2, and 3 in it? (Pakistan)
 - Which country has desert number 7 in it? (India)
 - Which country has desert number 8 in it? (China).
3. The students should be asked to complete section 1. Ask:
 - Which desert animal is shown on this page? (camel)
 - How does it survive in a desert? (It stores fat in its hump which it can convert into water when it needs to.)
4. Tell them that the camel has interesting ways of surviving sandstorms, hot sand that can burn the skin, and also walking on soft ground. Ask the students to discuss these and to see if they can find the answers.
5. They can then complete section 2.

Answers to Pupil's Book page 46

Answers will vary.

Answers to Skills Book page 24

1. a) Thal, Cholistan, Kharan, Thar b) Afghanistan c) Gobi
d) Thar e) Dasht-e-Kavir, Dasht-e-Lut
2. It stores fat in its hump and can convert this to water when needed.
It can close its nostrils to keep out sand.
It has long eyelashes that help to protect its eyes from sand and dust storms.
Leathery patches on its feet, knees, and on other parts of the body protect it from hot, desert sand when standing or sitting.
It can drink even salty or brackish water.
It eats almost any desert plants, including salty ones that other grazing animals won't eat, and also eats meat and fish when hungry.
Its broad feet and strong, splayed legs help it to walk on sand.

Further activities

1. Find out about the cities of Afghanistan.
2. Divide the class into groups so that each group can research a different city.
3. Different members of the group could write about different topics: e.g., transport, industry, crops grown nearby.
4. They could then make a presentation to the rest of the class, telling them about the city, showing pictures and answering questions.

Lesson 6: Iran

Learning outcomes

Students should be able to:

- identify and describe the physical geography of Iran
- establish facts about the people, wildlife, main crops, industries, and culture of Iran
- use latitude and longitude references to locate places and to describe their locations

Resources

- Pupil's Book pages 47–48
- Skills Book page 25 Geography words (This page supports most of the lessons in this unit.)

Pupil's Book steps

1. Tell the class they are going to learn about another of Pakistan's neighbouring countries and that this one has coastlines on the Persian Gulf, the Gulf of Oman, and the Caspian Sea. It was once called Persia. Ask:
 - Which country is it? (Iran)
2. Let the students study the map on page 47 and read the text. Ask:
 - What have you learned about the land in Iran? (It is very mountainous, with thick rainforests in the north, and deserts in the east and central areas. It also has coasts.)
 - Is Iran bigger or smaller than Pakistan? (bigger—twice as big)
3. Ask the students to look at the picture of Tehran, the capital city of Iran. Ask:
 - What can you find out about Tehran from the picture? (It has a lot of trees and the buildings are mainly white. The trees might have been planted for shade from the Sun and white buildings are good for reflecting sunlight, helping to keep them cool.)
4. Ask the students to look at the map and to find the cities and towns along the line of latitude 30°N (Shiraz, Zahedan). Ask:
 - Which countries are to the east of Iran? (Afghanistan, Pakistan)
 - Which countries are to the north of Iran? (Azerbaijan, Turkmenistan)
 - Which sea is to the north of Iran? (Caspian Sea)
5. The students can then complete the exercise on page 47.
6. Ask them to read page 48 when they have finished the exercise and to make notes about the climate and wildlife of Iran. They should not write complete sentences when they make notes. Ask them to write only the important words: e.g. climate—hot, dry—deserts; highest rainfall in north; most crops grown in north. Crops: wheat, tobacco, rice, fruit, sugar beet, tea. They should continue in this way. See **Further activities**.

Skills Book steps

1. Explain that this page will help them to learn important words for physical features (features of the land).
2. Ask the students to read the text in each box with a partner and match it to the appropriate, captioned picture.
3. They should then use what they have learned on this page and in the topics about Pakistan's neighbours to help them write the missing words in section 2.

Answers to Pupil's Book page 47

Answers will vary.

Answers to Skills Book page 25

- mangroves—trees growing in tropical coasts with roots that grow above water
 - plain—a very flat area of land
 - mountain range—a group of mountains close together
 - valley—an area of low land between hills or mountains; often a river flows through it
 - desert—an area with little or no rainfall and few plants
 - coast—the place where the land meets the sea
- Pakistan has a sea coast in Balochistan and Sindh where the land meets the sea. Here you will find mangrove forests growing. Pakistan has four deserts. They are the Cholistan Desert, the Thal Desert, the Thar Desert, and the Kharan Desert. The Indus River begins its journey in the tall mountain ranges of the north. From there it flows through valleys and plains until it reaches the sea.

Further activities

- Ask the students to use the notes they made about Iran to help them to write about its climate, crops, industries, wildlife, and people in their note books. This helps them to write in their own words rather than copying from the book. They could do this for homework.

Answers to Pupil's Book page 49

Answers will vary.

Unit 6 Our government

Background knowledge for the unit

This unit helps the students to learn about the way Pakistan is governed and also to understand the concept of democracy.

Pakistan came into being when the British rule ended and the subcontinent was partitioned on 14th August 1947—now celebrated as Independence Day. India was declared a separate nation the next day. Although the British rule ended and Pakistan apparently governed itself but it was a dominion, with a British monarch and a Governor-General in charge who represented the British government. The first Governor-General of Pakistan was Mohammad Ali Jinnah. In 1955 Iskander Mirza was the Governor-General of Pakistan but the following year Pakistan became a republic—the Islamic Republic of Pakistan. It no longer had a British monarch with a Governor-General as representative. So Iskander Mirza's title changed to President of Pakistan—on 23rd March 1956. Pakistan was the world's first Islamic Republic. This is why we have a national holiday on 23rd March each year—for Pakistan Day.

Expected learning outcomes for the unit

When they have completed this unit in the Pupil's Book and Skills Book most students should be able to:

- describe the structure of the government of Pakistan
- explain the role of the executive and legislature of Pakistan

They will learn how to:

- organize and take part in a school elections
- make decisions

They will begin to understand:

- the roles of the police, judiciary, lawyers, witnesses, judges, and magistrates in keeping law and order
- provincial government
- how elections are conducted

Lesson 1: How government is formed

Learning outcomes

Students should be able to:

- determine and define the role of political parties
- identify and describe democracy and elections

Resources

- Pupil's Book page 50

Pupil's Book steps

1. To gauge previous knowledge of the students in relation to the government of Pakistan ask the following questions:

- What is the name of the President of Pakistan?
- What is the name of the Prime Minister?
- What do they do?

- Can you name a political party?
 - What do political parties do?
2. Read page 50 of the Pupil's Book with the class. Ask:
 - Why do we celebrate Independence Day on 14th August? (Pakistan gained its freedom from the British rule and became a separate country from India on 14th August 1947.) Explain that the British had ruled most of the subcontinent for nearly 200 years and that Pakistan did not exist then—the entire subcontinent was known as India. Read the sentence 'Pakistan is a democracy' again. Ask:
 - What does this mean? (People can vote for the government. They can decide who will rule the country for them.) Review what they have learned about the world's oldest democracy—Ancient Greece. See *World Watch* Book 3.
 - How do people choose the government? (They vote during elections.)
 - What does this mean? (They stamp a paper to show who they want as a representative of their area. These people usually belong to a political party. The party with the most people winning the local elections runs the government.)
 - Who can vote? (anyone aged 18 or over)
 - Why do you think you have to be eighteen before you can vote?
 3. Let the students look at the photographs and read the captions. Ask:
 - What can you find out from these photographs about elections? (Party leaders and other politicians campaign before an election. This means that they hold meetings that anyone can go to. They tell the people how they plan to run the country if they win the election. They hand out leaflets and discuss their plans on radio and television. When people vote they mark a paper called a ballot paper, fold it in a particular manner, and put it into a sealed box. Later these votes are counted.)
 4. The students can now complete the exercise on this page.

Answers to Pupil's Book page 50

- | | |
|--|--|
| 1. 14 th August 1947 | 2. People can vote for the government. |
| 3. b | 4. 18 |
| 5. People vote by marking a ballot paper to choose the person they want to be in the government. | |

Further activities

1. Look up and write definitions of important words connected with elections: ballot, ballot paper, campaign, candidate, democracy, election, political party, vote.
2. You could compile a class dictionary of important words and names in government and governing.

Lesson 2: Executive

Learning outcomes

Students should be able to:

- explain how the executive, legislature, and judiciary combine to form a government
- describe the role of the Executive

Resources

- Pupil's Book pages 51–52
- Skills Book page 27 Our government

Pupil's Book steps

1. Explain the diagram at the top of page 51. Ask:
 - Who are the people who make up the Executive? (President, Prime Minister, Cabinet Ministers)
 - What is the Legislature? (Parliament)
 - Who are the people who make up the Parliament? (All the members of the government—the people who won the local elections to represent the people in the government. Some of these will be members of the ruling party; others will be members of other political parties.)
 - What does judiciary mean? (law courts)
 - What role do law courts play? (They decide whether people have broken the law.)
2. Read the rest of page 51 with the class. Ask:
 - How is the Prime Minister chosen? (He or she is the leader of the political party having the most members in parliament. Parties choose their leaders before the elections.)
 - Who chooses the other ministers? (the Prime Minister)
3. Ask the students why there are so many ministers. (Each one has something different to look after: education, health, defence, the environment, transport, housing, etc.)
4. Now let them read the introduction to the task on page 52. Divide the class into groups of four to six. Each group could discuss a different aspect of government; they could be 'a minister' and report back to the class. After they have listened to each group, and put forward any questions, the students can complete the task.

Skills Book steps

1. Review the process of completing a crossword puzzle: point out the clues for the words that are to be written across and down the puzzle; writing one letter of the word in each box.
2. Emphasize the fact that the clues don't always follow the sequence of 1, 2, 3... Refer to the first clue, 1 across on the puzzle, and show them that there the numbers 3, 4, or 5 across are not written because the clues of those numbers are found in the 'down' list of the puzzle.
3. Ask the students to read the clues and write the answers in the boxes of the crossword puzzle. Encourage them to use the Pupil's Book to help find the answers and to spell the words. The glossary of the Pupil's Book will also help.

Answers to Pupil's Book page 52

Answers will vary.

Answers to Skills Book page 27

Across

- 1 judge
- 6 police
- 9 eighteen
- 10 President
- 13 supreme
- 14 law
- 15 Prime Minister

Down

- 2 election
- 3 leader
- 4 Parliament House
- 5 vote
- 7 constitution
- 8 court
- 11 Islamabad
- 12 democracy

Further activities

1. Hold an election campaign speech in class, in which a volunteer talks about his/her ideas of one action he/she would take as Prime Minister.
2. The others could ask questions and make comments.
3. They can then vote on the issue.

Lesson 3: The Legislature; The police

Learning outcomes

Students should be able to:

- establish and describe how laws are made
- determine the purpose of laws and rules
- determine facts about the work of the police

Resources

- Pupil's Book pages 52–53
- Skills Book page 28 Road rules
- A copy or download of the Highway Code

Pupil's Book steps

1. Give the class some time to think about their school rules. Ask:
 - Why do we need rules?
 - What are some rules that help to keep people and property safe?
 - Which rules would help to make the school a better place for learning?
 - Why do we need rules when we all know how we should behave? (Unfortunately not everyone behaves as he/she should, all the time.)
 - What does 'behaving well' mean? (Give the students the opportunity to define this but focus on the fact that it means behaving with consideration and respect for others, animals, the environment, and property—our own, communal, and other people's.)
2. Read the section on page 52 about the Legislature. Ask:
 - What do you think laws are? (Laws are rules.)
 - How is parliament organized? (It is split into two 'houses'—the National Assembly [Lower House] and the Senate [Upper House]).
 - What is the procedure of making a new law and changing one? (Members of the Lower House discuss the law and reason in detail, then vote on it. If they agree they inform the Upper House and then the members of the Upper House discuss it. If they also agree they inform the President. It becomes a law, or a law is changed if the President agrees.)
 - Is this a good way of making laws? Why?
3. Read the section about the police, with the class. Ask:
 - What is the word for an action that breaks the law? (crime)
 - What is the main duty of the police? (They catch and arrest anyone suspected of breaking the law so that the courts can decide whether or not they did.)
 - What kinds of actions do you think are crimes? (List the students' answers on the board.)
4. Divide the class into groups of four and give each group a short list of crimes to discuss and decide what the punishment for each crime should be. Invite feedback from each group and ask the others if they agree. They should explain their answers and listen to questions and comments from the others.
5. The students can then complete the exercise on page 53.

Skills Book steps

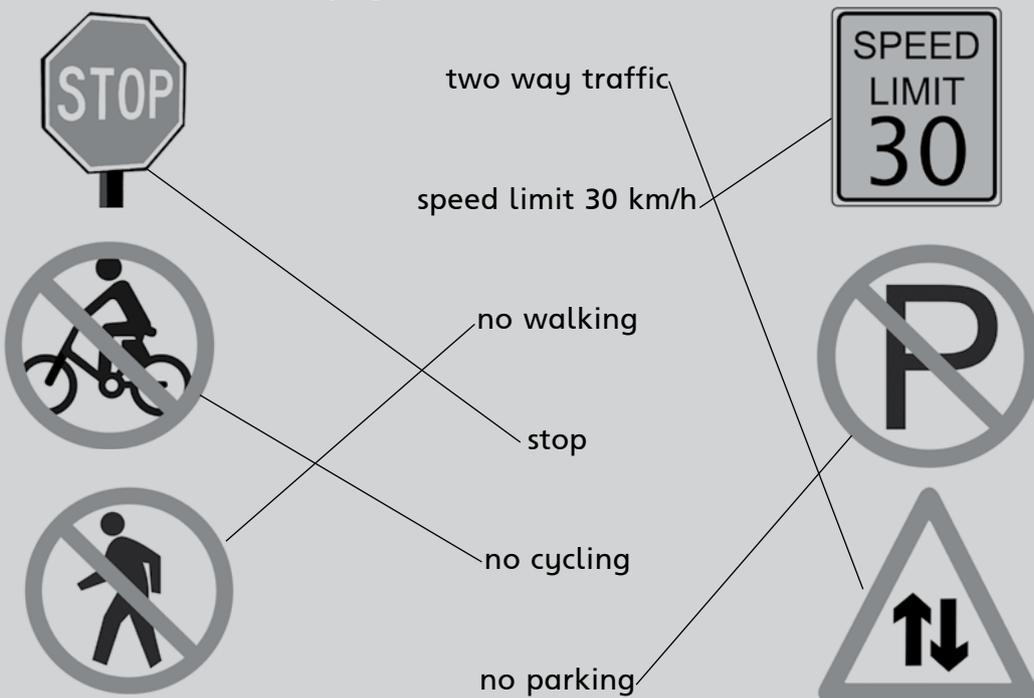
1. Tell the class that they will now learn about the laws for travelling on roads. Ask:
 - What rules do you know for using roads? (driving or cycling on the correct side of the road; compliance of speed limits; obeying road signs; driving, cycling, walking, or parking only where allowed)
 - Do you think all road users like these rules?
 - Which rules do you think they do not like?
 - Why do we have these rules?
2. Explain that road signs have three main purposes: to give information (e.g. speed limit), to give instructions (e.g. no cycling, stop, etc.), or to give a warning (e.g. watch out for two-way traffic, work in progress). Ask the students to study the road signs given on page 28 and match them to their meanings. They could also classify the signs on this page according to their purpose: information, instruction, or warning. Ask:
 - Was it easy to match these to their meanings?
 - What made it easy? (Point out that when road signs are designed there is a lot of discussion and the designers make them as simple and clear as possible.)
3. Divide the class into groups of about four and ask the groups to decide on signs that would be useful at school; to give information, instructions, or warnings. They should consider the best colours for the signs. Point out that the colours used for road signs have been studied and tested carefully to make sure people see them easily. They should also consider the size of the sign and any text—also how much text is to be used. If a sign is to be read from a distance the letters should be large. If there is too much text people will not be able to read the main message as vehicles pass by quite quickly.

Answers to Pupil's Book page 53

Answers will vary.

Answers to Skills Book page 28

1.



Further activities

1. Make a chart to classify road signs.
2. Begin with the ones shown in the Skills Book.
3. Find out about other road signs.
4. A local survey of road signs could be conducted with the students providing examples of signs they see while travelling to and from school.
5. Look up these signs in the Highway Code (see <http://nha.gov.pk>).

Lesson 4: Judiciary; Lawyers; Witnesses; Judges and Magistrates

Learning outcomes

Students should be able to:

- determine and define how laws are enforced
- describe the roles of different people in the judiciary

Resources

- Pupil's Book pages 53–54
- Skills Book page 29 You be the judge
- If possible (for **Further activities**), a television set and DVD player

Pupil's Book steps

1. Inform the students that they will learn about the work of the people whose job it is to keep law and order—make sure people obey the law and that they are punished if they do not obey the laws.
2. Read the paragraph about the judiciary with the class. Ask them to name the three different kinds of law courts and to say what each one is for. Ask:
 - Which is the highest court in the country, that deals with the most serious matters? (the Supreme Court) Let the students look at the picture of the Supreme Court, Islamabad given on page 54.
3. Read the three paragraphs on lawyers, witnesses, judges, and magistrates with the class. Ask:
 - Who are the people that try to find out what has happened and which laws have been broken? (lawyers)
 - How can you become a lawyer? (by studying at a university and passing exams to get a law degree)
 - Define the term 'witness'. (a person or persons who were present when a crime took place; they tell the court what they saw or heard)
 - Who decides what punishment to give anyone found guilty of breaking the law? (judges and magistrates)
4. Discuss the exercise on page 54. Ask the students to think about the rules they would like to have for the school playground. They should explain why each rule would be beneficial. Ask them also to think about what punishments should be given to anyone who disobeys these rules.

Skills Book steps

1. Tell the students that they will be acting as law court judges and will decide what punishments to give people for committing different crimes.
2. Ask them what punishment they think would be suitable for someone who has damaged another's property: for example, by deliberately breaking a window. List their ideas on the board and ask the class to vote for the one they think is the best. Discuss why this would be a suitable punishment.

3. Read the instructions at the top of the page with the class. Initially they could work individually to make notes initially. Let them share these with their groups and listen to one another's comments. They might then make changes to their answers before writing them on this page.

Answers to Pupil's Book page 54

Answers will vary.

Answers to Skills Book page 29

Answers will vary.

Further activities

1. At home, the students could choose a newspaper report about a crime and make notes on what punishment they think the person should be given and why.
2. At school they could report these, and choose one for a class 'court'. Volunteers could act as judge or magistrate, lawyer, witness/es, and the accused.
3. Investigate eye-witness accounts of an incident.
4. Show the students a short film of about 5 minutes of any incident. It could be a scene from a television programme. (You will need to watch it carefully first and prepare some questions about who did what, what the people said, what was going on in the background and the setting: outdoors/indoors, where, what large and small objects were in the scene, etc.)
5. Give the students the questions and ask them to write their answers.
6. Invite feedback. (It is usually surprising how the accounts vary.) You can then discuss how the courts can check the reliability of the witness'/es' statements.

Lesson 5: Government in our provinces; The school election—a story

Learning outcomes

Students should be able to:

- establish and describe how our provinces are governed
- relate how an election is conducted

Resources

- Pupil's Book pages 54–55
- Skills Book page 30 Values

Pupil's Book steps

1. Tell the class they will now be studying about the governments of our provinces and how an election works. Read the section on 'Government in our provinces' with the class. Ask:
 - Can you name all the provinces of Pakistan? (List the students' answers on the board and check them.)
 - What do we call the head of government in each province? (Chief Minister)
 - Who helps him or her to run the province? (the other ministers he or she has chosen)
2. Inform the students that they are going to read about an election in a school which was held to choose the president of the school council. Ask:
 - What is the purpose of having a school council? (Elicit that a school council gives the pupils a say in the running of the school.)

- How does a school council work? (Students vote for others who will represent them on the school council; whom they can talk to about any worries or concerns they have about school, and anything they think can be improved. The council members can then talk to the teachers about the problem.)
3. Invite volunteers to read the story of the school election aloud. Ask:
 - What do we know about what Ashley and Ayesha want to do to improve their school? (Ayesha wants to improve the playground. Ashley is more interested in personal improvement by making more friends.)
 - How does Ashley try to get others to vote for him? (distributes sweets to anyone who will agree to vote for him)
 - How does Ayesha try to get others to vote for her? (makes posters about her plans)
 - What does Ayesha tell the others in her speech? (how she would improve the playground to make the school a nicer place)
 - What does Ashley tell them? (how good he is at sports and that they shouldn't vote for a girl)
 - Who would you vote for? Why?
 4. The students can then complete the exercise.

Skills Book steps

1. Ask the students to visualize an election for a class president. Ask
 - What is the job of a class president?
 - What should he or she do?
 - What should the class president be like? Why? (Tell the students that the ideas on the page will help them.)
2. Read the instructions at the top of the page with the class and then ask them to read the list of personal qualities.
3. To help the students choose the best qualities for a class president they could cross out the least useful quality and then go over the list again crossing out the next least useful quality until they are left with the five qualities they think are the most important for a class president.
4. The next step is to explain why each quality would be important. They should then write a sentence to say why and how it would help him or her to do the job.

Answers to Pupil's Book page 55

Answers will vary.

Answers to Skills Book page 30

Answers will vary.

Further activities

1. Ask the class to prepare a short speech on what they would do as class president.
2. They should choose something that is important to them, explain why they have chosen it and say briefly what they would do about it.
3. They could complete this for homework. Remind the students to think about the questions that others in the class might ask regarding their idea.
4. They should prepare answers to these 'probable' questions.
5. Invite any who are willing to present their speech to the class. The others should listen attentively.
6. After the speaker has finished they could ask questions and make polite comments.

Answers to Pupil's Book page 56

Answers to Question 1a, b and Question 2 will vary.

Unit 7 Babur—the first Mughal Emperor

Background knowledge for the unit

The Mughals were a group of Muslims from India, Pakistan, Afghanistan, and Bangladesh, linked by their culture. They settled all over South Asia. In Pakistan there are many people of Mughal ancestry.

Babur's family lived in Farghana in Turkestan. His mother was descended from Ghengis Khan and his father from Timur, who conquered and ruled Samarkand.

Babur became the first Mughal Emperor when he defeated Ibrahim Lodhi, the leader of the Delhi Sultanate (rulers of northern India) in the First Battle of Panipat in 1526. Babur had already captured large areas of land from other kingdoms. Once he had the Delhi Sultanate he became ruler of most of the subcontinent.

Babur tolerated Hinduism and allowed new Hindu temples to be built and also made peace with the Hindu kingdoms of Southern India. He encouraged trade with the rest of the Islamic world, especially Persia and through Persia, Europe.

This unit focuses on Baburnama, the diary of Babur, from which a great deal can be found out about his family, daily life, his thoughts and ideas, and also about events during his reign.

Expected learning outcomes for the unit

When they have completed this unit in the Pupil's Book and Skills Book most students should be able to:

- identify the main events in the lives of the first Mughal emperor Babur, and know about his character
- describe how the Mughal Empire began

They will learn how to:

- use sources such as maps, diaries, and photographs to find out about people and events in the past
- ask questions and draw conclusions about people and events in the past
- interpret a family tree and use a timeline

They will begin to understand:

- the meaning of 'heroism'
- why rulers go to war to gain power by capturing other lands and people to rule
- how rulers can use wealth constructively

Lesson 1: Who was Babur?

Learning outcomes

Students should be able to:

- describe the early life and personal characteristics of Babur, the first Mughal emperor
- interpret a family tree
- relate how ruling positions were inherited

Resources

- Pupil's Book pages 57–58
- Skills Book page 31 Babur
- A map of Pakistan and its neighbouring countries as on page 57 of Pupil's Book

Pupil's Book steps

1. Ask the students to tell you what they know about the Mughals. Perhaps they have seen Mughal art in museums or Mughal buildings and gardens such as the Shalimar Gardens, Badshahi Mosque and the fort in Lahore; the tomb of Shah Rukn-i-Alam in Multan or Shah Jahan Mosque in Thatta. Put the following questions to the class to get this information:
 - Have you seen a picture of a Mughal emperor?
 - What was his name?
 - What do you know about him?
 - Have you seen a building that is from the Mughal era?
 - Where?
 - What was it called?
 - Describe it.
 - What do you know about it?
 - Have you visited a museum that has objects from the Mughal Empire?
 - Which museum?
 - What did you see?
 - Did you learn anything about the Mughals from what you saw there?
2. Tell the students that they will now learn about the first Mughal emperor, Babur. Explain that we know a lot about him because of his diary, called Baburnama and also from pictures. Read the first paragraph and the extract from Baburnama on page 57. Explain that 'in the twelfth year' means the year Babur was going to reach the age of twelve, so he was eleven years old. Ask:
 - What have you found out about Babur?
 - How did he become the ruler of Farghana?
3. Ask the class to locate Farghana on the map and to read the information about it.
4. Read the top section on page 58 with the class. Ask:
 - Did Babur have an easy or difficult time when he became the ruler of Farghana?
5. The students can then complete the exercise at the top of page 58 in their notebooks

Skills Book steps

1. Draw a simple family tree on the board based on the family of a volunteer from the class. Explain what a family tree is and that it can go back for many generations. A group of people of whom some were born at about the same time, in a family in different eras: for example, the children's parents, grandparents, or great-grandparents.
2. Tell the students that the family tree on page 31 of the Skills Book shows six generations of Babur's family. Identify the people who came before Babur and explain that they were his ancestors.

Answers to Pupil's Book page 58

1. Eleven ('in the twelfth year of my age').
2. His father, Omar Sheikh Mirza, died and he was the eldest son.
3. Sultan Ahmad Mirza and others in his family also wanted to rule Farghana.
4. The student's pictures should show Babur, Sultan Ahmad Mirza, the nobles, and their horses and camels; also Mirza's army falling off the bridge.

Answers to Skills Book page 31

1. 1483
2. Umar Shaikh Mirza
3. Sultan Abu Said Mirza
4. Qutluq Nigar Khanum
5. Yunus Khan
6. Sultan Muhammad Mirza
7. Mirza

Any two sentences that are accurately based on the family tree: for example, Babur's grandfathers were Sultan Abu Said Mirza and Yunus Khan. The Emperor Timur was Babur's ancestor.

Further activities

1. The students could draw their own family trees, going as far back as they can.
2. They could then pose questions for a partner to answer about it.

Lesson 2: Babur the warrior

Learning outcomes

Students should be able to:

- describe Babur's struggle to keep control of Farghana
- explain why Samarkand was important to Babur
- interpret symbols on a map and use a key to get information

Resources

- Pupil's Book pages 58–59
- Skills Book page 31 Babur's family tree for reference
- Maps of Pakistan and its neighbouring countries and a map of the sites of important events in Babur's life (pages 57 and 59 of the Pupil's Book)

Pupil's Book steps

1. Help the students find Samarkand on a map of Pakistan and our neighbouring countries. Point out that it is in Uzbekistan. Show the class the photograph of Samarkand on page 58 of the Pupil's Book and tell them that they will find out why it was important to Babur. Read the second half of page 58 with them. Ask:
 - What do you know about Samarkand? (It is in the land now known as Uzbekistan. This is to the north of Pakistan.)
 - Why did Babur want to rule it? (It was his ancestor Timur's capital city.)
 - Why did Babur lose Farghana and then Samarkand? (Many of his men decided to stay in Samarkand.)
 - What made his army weak? (It decreased in size because many of the soldiers had remained in Samarkand.)
2. Read page 59 with the class and ask:
 - Which city did Babur conquer? (Kabul)
 - Which country is it in? (Afghanistan) Help the students locate Afghanistan and Kabul on the map.
3. Guide them on how to use the key to understand the map on page 59 of the Pupil's Book. Explain that it shows the sites of some important events in Babur's life. Ask:
 - Where did Babur win battles? (Farghana, Samarkand, Panipat, Agra)
 - Where did he lose battles? (Farghana, Samarkand)

Note: He won and lost some battles in the same places: Farghana and Samarkand. Tell the students that they will find out about Panipat and Delhi in the next lesson.
4. Ask the class what they have learned about Babur from these pages. (He must have been very strong and he liked to exercise—see 'It's a Fact'.)
5. The students can then complete the exercise at the bottom of page 59 in their notebooks.

Skills Book reference

The family tree can be used to help explain why Samarkand was important to Babur by showing that Timur was Babur's ancestor and explaining that Babur wanted to recapture Samarkand because it was once Timur's capital city.

Answers to Pupil's Book page 59

1. It was his ancestor Timur's capital city.
2. Many of his men stayed on in Samarkand so his army became weak.
3. He felt lost because he didn't have a homeland.

Further activities

Find out more about the places on the map: Samarkand, Farghana, Kabul, Agra, and Panipat.

Lesson 3: The Battle of Panipat

Learning outcomes

Students should be able to:

- describe the Battle of Panipat and why Babur wanted to capture and rule the Delhi Sultanate
- explain how Babur planned the battle so that he could win in spite of being outnumbered
- explain how the Mughal Empire began

Resources

- Pupil's Book page 60
- Skills Book Page 33 The Battle of Panipat
- A map showing the sites of important events in Babur's life. See page 59 of Pupil's Book.

Pupil's Book steps

1. Let the students study the map on page 59 again. Ask:
 - Where is Panipat?
 - What do you now know about Panipat?
2. Tell the students that the Battle of Panipat was very important to the Mughals and that they will learn the reasons for this. Then read the first two paragraphs of page 60. Ask:
 - Who was Babur going to fight against at Panipat? (Sultan Ibrahim Lodhi)
 - Which land did he want? (the Sultanate of Delhi)
 - Why did he want to conquer the Sultanate of Delhi? (it had good farmland and riches such as jewels, cloth, and carpets)
 - Whose army was stronger? (Ibrahim Lodhi's)
3. Ask the class to look at the picture of the Battle of Panipat and help them to read the captions. You could then divide them into groups and ask them to work together to tell the story of the battle. Some of them could then retell the story to the class after which questions could be asked and mistakes corrected. Ask:
 - How were the cannons used to help the army? (They moved in front of the army as protection.)
 - What else helped to keep Babur's army safe? (bullock carts)
 - How were they useful? (The noise they made frightened off the enemy's elephants.)
4. Read 'It's a Fact' with the class and ask:
 - What new weapons were used at the Battle of Panipat? (guns and cannons)
 - Why was the battle very important? (It started the Mughal Empire.)
5. The students can then complete the exercise from page 60 in their notebooks.

Skills Book steps

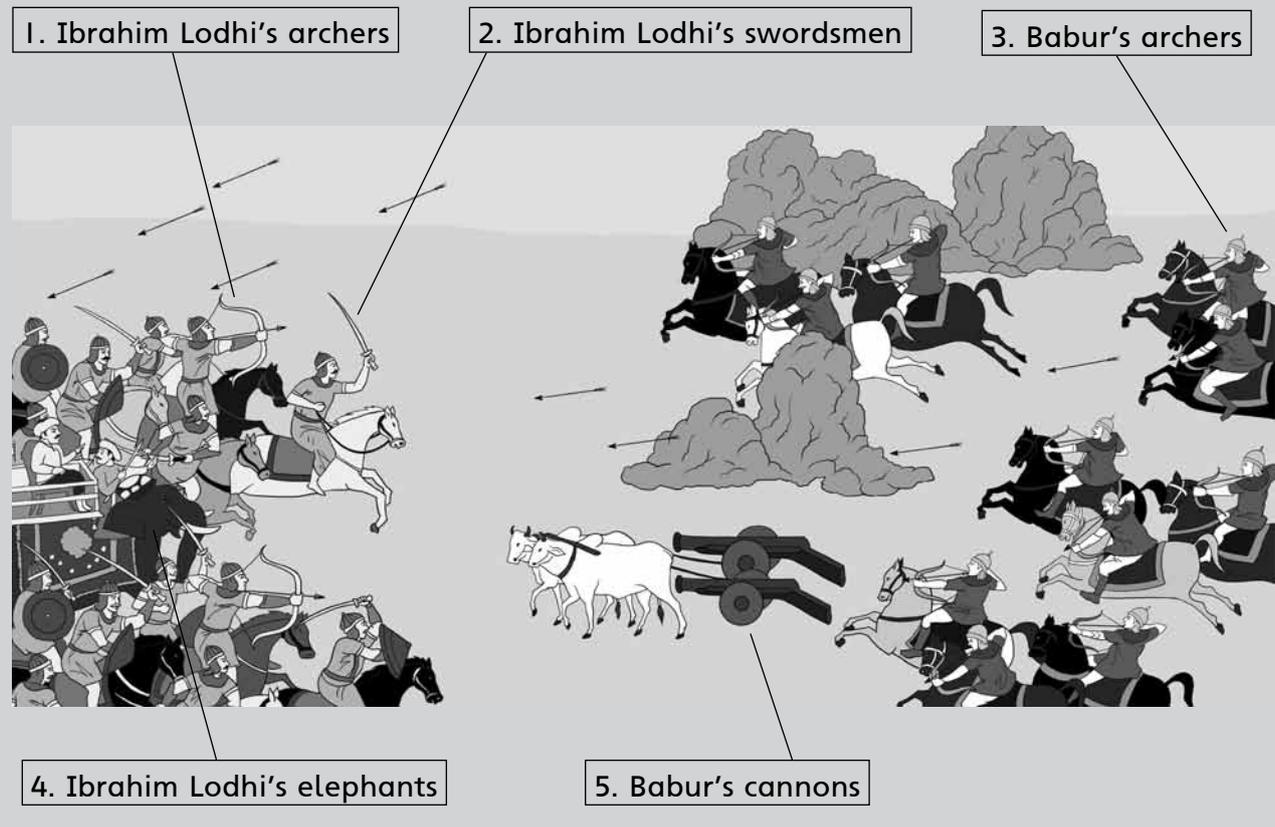
1. Tell the class that they are going to learn more about the Battle of Panipat from another picture of the battle, and from what Babur wrote in Baburnama.

2. Read the extract from Baburnama with the class. Ask:
 - What happened when Ibrahim Lodhi saw Babur's men all around him and his army? (He and his men stopped.)
 - What did Babur do then? (He ordered that arrows be shot at the enemy.)
 - Why couldn't Ibrahim Lodhi's army get away when they were unable to fight off Babur's army? (They were too tightly packed.)
 - What weapons did the armies use in the battle? (They used bows and arrows, swords, spears, cannons, and guns.)
3. Ask the students to look at the illustration and help them read the text in the big box. They should write these in the small, empty boxes (1–5) and join each to the relevant illustration using arrows to show what is happening.

Answers to Pupil's Book page 60

1. It had good land for farming and a lot of riches: jewels, cloth, and carpets. Its people were skilled in crafts.
2. Any three from:
 He had cannons on wheels that could move easily.
 The cannons moved in front of his army to keep the soldiers safe.
 They used bullock carts to frighten away the enemy's elephants.
 Babur's men charged in from the sides with swords and shields.
 In the centre Babur had men with guns who rushed out between the bullock carts.
 Others rushed between the carts with spears.

Answers to Skills Book page 33



Further activities

1. Help the students to draw and write the story of the Battle of Panipat comic-strip style.
2. Have speech and thought bubbles to show what Babur, Ibrahim Lodhi, and their men are saying and thinking.

Lesson 4: Babur and his army in India

Learning outcomes

Students should be able to:

- describe Babur's struggle and strategies to keep his army together
- explain how Babur used a speech to persuade his army to remain with him
- use a diary to find out about events and people in the past

Resources

- Pupil's Book page 61
- Skills Book page 32 Babur's timeline; page 34 A newspaper report. (This also supports page 63 'What have I learned about Babur?' Questions B1 and 2.)
- A map showing the sites of important events in Babur's life. See page 59 of Pupil's Book.

Pupil's Book steps

1. Let the students know that Babur stayed on in India after the Battle of Panipat but he had difficulty in keeping his army together. Read the first two paragraphs of page 61. Ask:
 - Why didn't Babur's soldiers want to stay on in India? (They did not like the place because it was hot and dusty.)
 - Where did they want to go? (Kabul)
 - Why Kabul? (It was their home.)
 - What do you think Babur can do to keep them together?
2. Read the extract from Baburnama. Ask:
 - What did Babur do to persuade his army to stay in India? (He said they had worked hard and fought well and asked why they wanted to give up the lands they had won. He asked why they wanted to give up riches and go back to Kabul and be poor.)
 - What did he say was very good about the part of India they were in? (It had masses of gold and silver.)
 - What did he say they had managed to do? (beat large armies and win land)
 - How do you think the soldiers felt?
3. The students could enact the scene in small groups, first with some acting as soldiers and complaining about being in India. They could say "We want to go back to Kabul". "It is too hot and dusty here". "We miss our homes and families." Others could agree, saying, "Yes. We want to leave this place." Another could then act as Babur making a speech. Ask them to think about how they would behave if they were there.
4. The students can then complete the exercise on page 61 in their notebooks.

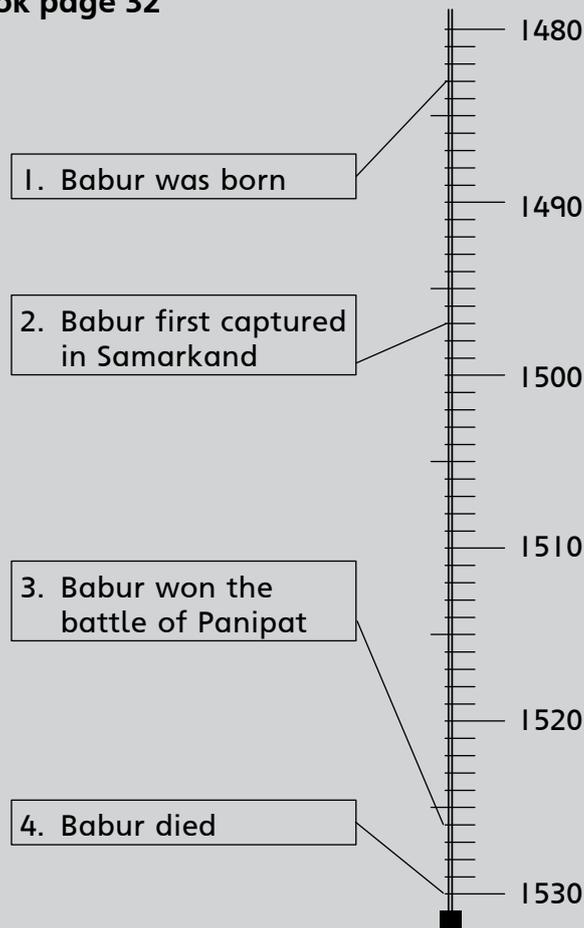
Skills Book steps (Page 32 Babur's timeline)

1. Explain how to put information on a timeline: in order of date, beginning with when Babur was born. Ask the students which year that was (1483). They can refer to the information that is provided on this page.
2. Ask them which event comes next in order of date, (Babur first captured Samarkand). They should write the heading 'Babur first captured Samarkand' in box 2 and draw a line to link it to the correct year on the timeline.
3. Ask them to continue in this way until they have completed the timeline.

Answers to Pupil's Book page 61

- A.
1. Babur's army wanted to leave India as they did not like it there because it was hot and dusty.
 2. Babur wanted to stay so that he could rule Delhi and Agra.
 3. He talked to his men about three things they had done. These were:
 - i) long travel,
 - ii) facing great danger,
 - iii) beating huge enemy armies to capture their lands.
 4. He asked his men two questions:
 - i) Why do you want to give up the lands we won after all this?
 - ii) Why do you want to waste all we have achieved at the risk of losing our lives?
- B. The students' views, with reasons.

Answers to Skills Book page 32



Answers to Skills Book page 34

? – ? – 1530; Agra; 47; 1483; Farghana; Panipat; bigger; guns-cannons; go home; called them together and spoke to them—(or: spoke to them); garden—Kabul

Further activities

1. Discuss homesickness. Ask the students if they have been away from home and really longed to go back. Ask what and whom they missed when they were away.
2. They could talk about how their parents or other people in their family tried to make them feel better about being away from home so that they would want to stay on.
3. Talk about how Babur's soldiers might have felt when they were away fighting battles.

Lesson 5: Babur—the Mughal Emperor

Learning outcomes

Students should be able to:

- describe the last part of Babur's life, in Kabul
- use Babur's diary to find out about his character
- define and discuss what heroism means and to decide whether Babur was a hero

Resources

- Pupil's Book page 62
- Skills Book page 35 What is a hero?
- A map and pictures of Kabul

Pupil's Book steps

1. Ask the students to look at the pictures of Babur's garden in Kabul. Point out that it is still there and cared for. They could locate Babur's garden and tomb on the map of Kabul and Shah Jahan Mosque on a map of the city of Thatta.
2. Read page 62 with the students. Ask:
 - How did Babur change Agra and Kabul? (He built beautiful gardens and buildings.)
 - Do you think he made the cities more beautiful?
 - What did he enjoy the most? (being in his garden)
 - What did he plant in his garden in Kabul? (citrons, plantains, sugar cane, pomegranates, and oranges)
 - What did he like about it?
3. Ask the class to look at the pictures and read the captions. Ask:
 - Where can we still see some of Babur's gardens?
4. Then read what Babur did after capturing Kabul. Ask:
 - What did Babur do after he conquered Kabul?
 - What does this tell you about his character?
 - In which year did Babur die?
 - How old was he? (Inform the students that they can find out when he was born from Lesson 1 and calculate how old he was when he died.)
 - Where did he ask to be buried?
 - Why did he choose this place?
5. Read 'It's a Fact' to find out what Babur did after capturing Agra. Ask:
 - Why did he have a feast?
 - Why did his guests pour gold and silver coins onto a carpet for him?
 - Why did he give them presents?
6. The students can then complete the exercise at the bottom of page 62 in their notebooks.

Skills Book steps

1. Ask the class how they would define a hero.
 - What do heroes do? (Ask them to think about whether Babur could be called a hero.)

2. They can then read what Babur wrote after the Battle of Panipat. Ask:
 - What does this tell you about Babur?
3. Let the students read this unit again to recall as much as they can about what Babur did in order to fill in the chart about him.
4. Ask them to write on the chart, in the appropriate column, what was good and bad about Babur.

Answers to Pupil's Book page 62

1. The students look at the pictures and read about Babur's garden in Kabul. They imagine being in it and write what they think they would see, hear, and smell. The students should include information from this page, for example; the four gardens on a hill, the trees, oranges, citrons, pomegranates, plantains, sugar cane, the mild winter climate, the stream, the lake with orange and pomegranate trees around it, the meadow.
2. The students should write their views about Babur and explain why they have come to these conclusions

Answers to Skills Book page 35

The students write their own views.

Further activities

1. Discuss the differences between heroism and strength. You could ask Are all people who win battles or wars heroes? What makes them heroes?
2. They could consider how a hero treats people he or she has defeated.

Answers to Pupil's Book page 63

- A. The students copy the Fact-File in their notebooks and read Unit 7 again to get the information to complete it:
 - Birthplace: Farghana
 - Month and year of birth: Ramadan, 1483.
 - Three fruits in his garden in Kabul: orange, citron, pomegranate
 - A place he captured twice but finally lost: Samarkand
 - An important battle Babur won near Delhi: the Battle of Panipat
 - The name of his empire: The Mughal Empire
 - Two main cities in the Empire: any two from Agra, Kabul, Delhi
 - Two new weapons he used: guns, cannon
 - Two older weapons he used: swords, spears
 - The year he died: 1530
 - Where he was buried: in his garden in Kabul
 - An important animal the enemy used at Panipat: elephants
- B. The students write a newspaper report about Babur. Page 34 of the Skills Book (A newspaper report about Babur) will help:
 - Date **1530**
 - The Mughal emperor Babur has died in **Agra** at the age of 47. Babur was born in the year **1483** and became ruler of **Farghana** when his father died. Babur's most important battle was the Battle of **Panipat**. He used clever planning to beat an army that was much larger than his army. It was the first battle where an army used **guns** and **cannons**. After the battle his men wanted to **leave India** but Babur **made a speech to get them to stay**. Babur was buried in his **garden** at **Kabul**.

Unit 8 The Mughal Dynasty

Background knowledge for the unit

After Babur died his son Humayun took over as Mughal Emperor. He was very interested in astrology and built an observatory to study the stars and planets. He believed that the planets rule our lives and used astrology to guide him in all important decisions.

Humayun was followed by his son Akbar, known as 'Akbar the Great'. He was thirteen years old. Like Babur he also won a battle at Panipat—in fact he won every battle he fought. When he died in 1605 his empire covered most of north, central, and western India. Akbar tried to work peacefully with the Hindu leaders and gave them positions of responsibility. He believed that people should be treated equally whatever their religion. He set up provincial governors who were responsible to the emperor for the government of their area. Akbar also ended a tax on non-Muslims. He built a new capital city—Fatehpur Sikri—which had a mixture of Hindu and Islamic architecture.

After Akbar, his son Jahangir took over. He had a zoo and studied the animals in it. Akbar travelled around his empire in luxurious style, setting up a camp that was like a town, wherever he stayed. Jahangir made Islam the official religion and Urdu the official language of the Mughal Empire. Like his father, he tolerated other religions. Jahangir built many of the famous monuments and gardens for which the Mughals are remembered. But because he spent too much money, he had to charge higher taxes.

Jahangir's son Shah Jahan was the next Mughal Emperor. He moved to Delhi and made it his capital city. He built the Taj Mahal at Agra to hold the tomb of his wife Mumtaz Mahal. He wanted to build another monument like it as his own tomb, but this never happened, and when he died he was buried beside his wife.

During Shah Jahan's lifetime his sons began to fight over who would rule the empire next. Aurangzeb defeated the others, but he kept his father prisoner for the remaining eight years of his life, in the fort at Agra.

Aurangzeb was the last great Mughal Emperor who ruled for nearly 50 years. He was a very observant and religious Muslim but did not tolerate other religions in his empire. He inherited the wealth of Shah Jahan and spent it on things that would help his people, such as colleges and roads.

Aurangzeb enlarged the Mughal Empire but there were battles among some groups of people within it. The Mughal Emperors who came after Aurangzeb became officials in charge of territories ruled by others, including the British and French. As traders from these countries came to live in the subcontinent the British began colonizing it.

Expected learning outcomes for the unit

When they have completed this unit in the Pupil's Book and Skills Book most students should be able to:

- describe the main events in the lives of the six, main, Mughal emperors and understand their characters
- define the changes brought about by the emperors to the Mughal Empire
- identify the legacy left by the Mughal Empire, such as art, buildings, and cities

They will learn how to:

- use sources such as maps, charts, paintings, and photographs to find out about people and events in the past
- ask questions and draw conclusions about people and events of the past
- make judgements about emperors' characters based on evidence

They will begin to understand:

- some of the reasons for wars
- how an emperor can affect the lives of the people in his empire
- how wealth can be used constructively

Lesson 1: Babur's son Humayun

Learning outcomes

Students should be able to:

- identify some of the personal characteristics of Humayun, the second Mughal emperor
- explain how Humayun tried to extend his empire
- define and describe the solar calendar

Resources

- Pupil's Book pages 64–65
- Skills Book page 36 Solar calendar (Follow Skills Book steps from Lesson 2; Akbar, the third emperor); page 37 Hamida Begum's rubies

Pupil's Book steps

1. Ask the students if they remember who Babur was. Let them try to figure out who the next Mughal emperor would be, (his son—usually the eldest, but sometimes emperors named another son as the next emperor, if they thought he would be a better warrior or ruler). Remind the students how Babur inherited the kingdom from his father and tell them that the same thing happened when Babur died—his son became emperor. Let them know that they will now read about the next Mughal emperor—Babur's son, Humayun.
2. Read page 64 of the Pupil's Book with the class. Ask:
 - How did Humayun become Emperor? (His father, the Mughal Emperor Babur, died.)
 - What do you know about Humayun? (The students give any facts from the page.)
 - How did he try to extend the Mughal Empire? (He captured Delhi.)
 - What problems did he have? (He was tricked by Sher Shah Suri. His men did not want to stay and fight in Delhi.)
3. Ask the students to look at the picture of Humayun on this page and ask volunteers to describe him. They could give a sentence each. Write these on the board and ask some of the other students to read them out.
4. Let them look at the other picture on page 64 and read its caption. Explain that an observatory is a building that has a roof which opens for a telescope used for studying the stars and planets. Ask:
 - What does the caption of the second picture tell you about Humayun?
 - What interested him?
 - Why do you think he built an observatory?
 - How did it help him?
 - How did it harm him?
5. Read 'It's a Fact' on page 65 and explain that often, when rulers won battles they took home 'prizes' such as jewels. Ask:
 - What did Humayun get as a prize after the battle of Panipat? (a big diamond)
6. The students can then complete the exercise at the top of page 65 in their notebooks.

Skills Book steps (Page 36 Solar calendar)

See Lesson 2: Akbar, the third emperor.

Skills Book steps (Page 37 Hamida Begum's rubies)

1. Read the picture story with the class. Then ask volunteers to retell parts of it. You could ask:
 - How did the story begin?
 - What happened next?
 - What did he do after that?
 - Why did he do that?
2. Ask what they have learned about Humayun from this story. (he was rich—he and his wife had rubies; their riches seem to have been important to them)
3. Divide the class into groups of four so that they can enact the story. Then ask one group to enact it for the class. They could also do so for another class. It would be useful to give the audience the background about who Humayun was and where he lived.

Answers to Pupil's Book page 65

- A. Humayun's father was the first Mughal emperor **Babur**. Humayun became the second **Mughal** emperor when his father died. An Afghan leader named **Sher Shah Suri** captured Delhi from him. Humayun got it back with the help of **the Persian emperor**.
- B. Humayun always planned battles on Tuesdays because **Tuesday was the day of Mars, the planet that ruled wars**.

Answers to Skills Book page 36

See Lesson 2: Akbar, the third emperor.

Skills Book page 37

The students enact the story.

Further activities

1. The students could draw a picture story of the time when Humayun was ill and Babur was worried about him.
2. Ask them to draw speech bubbles and write in them what was said.

Lesson 2: Akbar, the third Mughal emperor

Learning outcomes

Students should be able to:

- list some of the personal characteristics of Akbar, the third Mughal emperor
- explain how Humayun extended his empire
- find information about the buildings Akbar built that still exist

Resources

- Pupil's Book pages 65–66
- Skills Book page 36 Solar calendar (This can be used with Lesson 1: Babur's son Humayun.)
- A calendar (Universal Calendar, in English)
- If possible, a globe and a lantern with a light that shines in all directions, or a lamp with a bare light-bulb. If you don't have a globe, you could use a large ball. Draw the outlines of the continents on the ball.

Pupil's Book steps

1. Begin with the following questions:
 - Who was the second Mughal emperor?
 - Who do you think would become the next Mughal emperor after Humayun? (his son)
Tell the students that the son who became Emperor was Humayun.
2. Discuss the first picture on page 65. Ask:
 - What is the Emperor Akbar doing in this picture? (talking to holy men)
 - What does this tell you about him? (He thought religion was important.)
 - How did he treat people of different religions in his empire? (equally)
3. Ask the students to study the second picture—the Lahore Fort. Ask if any of them have been to the fort. They could describe it to the others. They can find out more about Lahore from the first unit.
4. Read the first two paragraphs about Akbar on page 65 with the class. Ask:
 - What have you found out about Akbar? (They give any facts from the page.)
 - How did he become the Emperor? (his father the Mughal Emperor Humayun, died)
 - How did he try to extend the empire? (He fought a battle at Panipat.)
 - Was he a good warrior, and how do we know this? (Yes—he won every battle he fought.)
 - Was he a good ruler?
 - Why do you think so?
 - Name something he built that still stands. (Lahore Fort)
5. Read the first half of page 66, including 'It's a Fact', with the class. Ask:
 - How do we know so much about Akbar? (He asked some people to write about everything that happened while he was Emperor.)
 - What is your opinion of Akbar?
 - Explain your views.
 - Was the Mughal Empire larger or smaller at the end of his reign? (larger)
 - What interested him and were important to Akbar? (sports and making things)
6. The students can then complete the exercise on page 66 in their notebooks.

Skills Book steps

1. Ask the class if they know what a calendar is. Tell them that two main calendars are used: the Islamic calendar and the Universal Calendar. We use the Islamic calendar for the correct days for fasting during Ramadan, Hajj, and to celebrate other Islamic holidays and festivals. The Universal Calendar is the official calendar used around the world by businesses and for anything official, such as railways and airlines. We use it for most everyday matters.
2. Discuss a Universal Calendar. Ask:
 - How many days are there in a year?
 - Why did people choose to have 365 days in a year?
 - i) Explain that this is because the Earth takes 365 days to revolve round the Sun.
 - ii) The students could look at the calendar and write down the number of days each month has and then add them up. If it is a leap year there will be 366 days. Ask if they know why. If not they will find out from the Skills Book exercise. Ask:
 - How many hours are there in one day (including the night)?
 - Why are there 24 hours in a day?
3. Explain that this is because the Earth spins (rotates) once every 24 hours so that some parts of it face the Sun and have day while the other parts have night.

4. Use the lantern or lamp and the globe or ball to show how the Earth goes round the Sun. A child could walk round the lamp carrying the globe and turn it as they move.
5. The students can then read the information on page 36 and look at the diagram. Point out that the Earth tilts so that sometimes the northern half points towards the Sun and sometimes the southern half points towards the Sun. Explain that this is why we have seasons, which are more noticeable nearer the Poles than near the Equator (the middle part of the surface of the Earth—halfway between the Poles). Places on the Equator are always hot because this part of the Earth always points towards the Sun.

Answers to Pupil's Book page 66

The students talk to a friend about their own views. They should use evidence from the text to support their answers.

Answers to Skills Book page 36

1. The students' own answer. The present year.
2. 1556 3. 1605 4. 1627 5. 1666 6. 1605 7. 1707

Further activities

1. Discuss the qualities of a good emperor.
2. You could write key words and phrases on the board for the students to think about: fairness to all people in the empire; religion; wars; wealth; what they spend money on; education.

Lesson 3: Jahangir, the fourth Mughal emperor

Learning outcomes

Students should be able to:

- list about the personal characteristics of Jahangir, the fourth Mughal emperor
- describe the life style of a rich Mughal emperor
- use maps to find out about how the Mughal Empire changed during the reigns of the six main, Mughal emperors

Resources

- Pupil's Book pages 66–67
- Skills Book page 38 Map of the Mughal Empire
- A map of India, Pakistan, and Afghanistan and neighbouring countries

Pupil's Book steps

1. Begin the lesson by asking,
 - Who was the third Mughal emperor?
 - Who do you think will become the next Mughal emperor after Akbar? (his son). Tell them that his son Jahangir became the next Emperor.
2. Read the caption and discuss the picture on page 66. Ask:
 - Who is Jahangir talking to? (a holy man)
 - Who are the others waiting to talk to Jahangir? (a sultan and the King of England)
 - What is he giving the holy man? (a book)

- What does this tell you? (The holy man was more important to Jahangir than any sultan or king—he was a religious man.)
- Can you see anyone else in the picture? (There is another man just below the king. Tell them that he is Bichitr, the artist who painted this picture. He put himself in the picture too.)

You could explain that Jahangir went to see the holy man to ask him to pray with him for a son who could take over as Emperor after he died.

3. Read the first two paragraphs about Jahangir from page 66 with the class. Ask:
 - Did Jahangir make the Mughal Empire larger?
 - Which part did he lose?
 - Who captured it?
 - What problems did he have? (His sons tried to take over the Empire.)
 - What did Jahangir do that helps us to learn about what happened while he was Emperor? (He asked his artists to paint pictures of people, places, events, and his animals.)
4. Let the students study the picture on page 67 and read its caption. Ask:
 - What does this tell us about Jahangir? (He was probably rich—his clothing is very fine. He was fond of animals and perhaps liked hunting, as there is a falcon perched on his hand.)

Point out the leather glove he is wearing and the strap attached to the bird's leg, and explain that people still use these today when they handle hunting birds. The glove protects the person's arm from the bird's claws and the strap prevents it from flying away.
5. Now read the first two paragraphs from page 67, with the class. Ask:
 - What do you come to know about Jahangir after reading these two paragraphs? (He was rich and had a luxurious life style. He travelled around his empire.)
6. After the class reads 'It's a Fact', ask:
 - What was Jahangir's gold chain for?
 - What does this tell you about him? (He wanted to hear the views of people in his empire.)
7. The students can then complete the exercise on page 67 in their notebooks.

Skills Book steps

1. Ask the students to look at the map. They should also study the key. Let them use it to get information from the map. Ask:
 - What do you learn about the Mughal Empire from this map? (They should notice that Babur had conquered a large part of the north of the subcontinent, and that Akbar added to this in all directions, while Aurangzeb added a large area to the south.)
2. They will need a map of Pakistan, India, Afghanistan, and neighbouring countries to find information for section B. For B2 ask the students to name countries that had even small parts in the Mughal Empire.

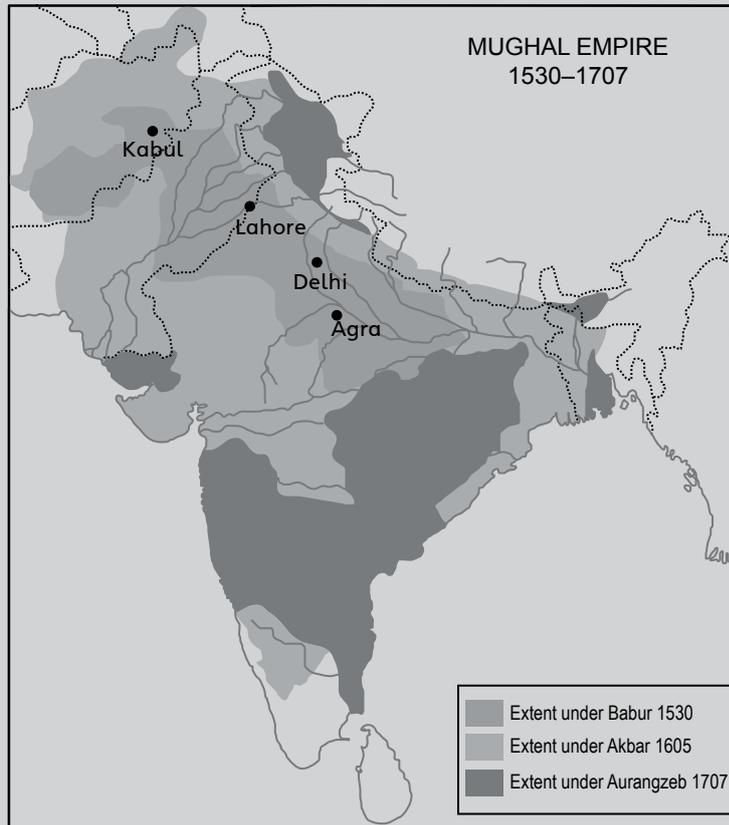
Answers to Pupil's Book page 67

1. Jahangir's time was a time of peace.
2. Jahangir was very rich.
3. Jahangir liked to talk to holy men.

Answers to Skills Book page 38

1. a) Aurangzeb b) Aurangzeb's c) Akbar's and Aurangzeb's

2.



Further activities

1. Use the internet to find more pictures of Jahangir.
2. The students could make notes about what they discover about him from each picture.
3. Also look at pictures that Jahangir's court artist Mansur painted of his animals.
4. The students could use the pictures to help them make a list of the animals that lived in the Mughal Empire at that time.

Lesson 4: Shah Jahan, the fifth Mughal emperor

Learning outcomes

Students should be able to:

- list some of the personal characteristics of Shah Jahan, the fifth Mughal emperor
- explain how Shah Jahan tried to extend his empire
- give an opinion of how an emperor should use his wealth

Resources

- Pupil's Book pages 67–68
- Skills Book page 39 Riches of the rulers (This also supports Lesson 5.)

Pupil's Book steps

1. Begin the lesson with the following questions:
 - Who was the fourth Mughal emperor?
 - Who do you think will succeed Jahangir? (his son). Tell the students that Muhammad Khurram who took the name Shah Jahan succeeded Jahangir.
2. Read the information about Shah Jahan on page 67 with the class. Ask:
 - Which city did he try to capture from the Persians? (Kandahar)
 - What changes did the people of Shah Jahan's empire witness? (New palaces, mosques, gardens, and the road from Lahore to Delhi and Agra were built. They had to pay higher taxes for these developments.)
 - Can you name a mosque in Pakistan that Shah Jahan built? (Shah Jahan Mosque in Thatta)

Discuss what Shah Jahan did that allowed his sons to become powerful while he was still Emperor. (After his wife died he let his sons lead the army.)

3. Ask the students if they think Shah Jahan acted fairly as an emperor and why. They might think it was unfair to charge people higher taxes because he spent a lot of money or they might think this was fair because he spent some of the money on things that made life better for people: a good road, mosques, and gardens (if they were not just for himself). They might think it unfair that people should pay for the emperor's palaces or, the opposite—this was fair because an emperor needs to appear strong, rich, and powerful to the rulers of other lands. They might think he acted fairly in treating people of all religions equally. You could point out that many nations today agree that people of all religions should be treated equally.
4. Let the students read 'It's a Fact' on page 68. Ask:
 - Was this a good way for Shah Jahan to spend his money?
 - What makes you think so?
5. Ask the class to look at the pictures of the building and gardens on page 68 and to read the notes below them. Ask if any of them have been to the Shalimar Gardens in Lahore. They could describe the gardens and buildings. Ask:
 - What is inside the Taj Mahal?Explain that Shah Jahan built the Taj Mahal at Agra as a tomb for his wife Mumtaz Mahal and that his family buried him beside her. Tell them that the building and gardens are a *World Heritage Site*. Ask if they remember what that means. They might remember, from Book 3, that it is a place which has been given special protection and must be looked after because of its importance in history and culture. The students might be able to see some of the decoration on the walls of the Taj Mahal. Ask if they know what it is made of. Tell them that the walls are of white marble with precious stones used to make patterns of flowers and passages from the Qur'an.
6. Look at Shah Jahan's picture on page 68 and discuss it with the class, read the caption too. Ask:
 - What did Shah Jahan think of this picture?
 - What does it make you think about him?
7. The students can then draw a picture of the Taj Mahal in their notebooks.

Skills Book steps

1. In pairs, the students will read the first question. They should think about whether emperors should have riches or not and have reasons to support their opinions.
2. Give them time to discuss and write their answers, then invite feedback. Ask:

- Why should a ruler have a palace?
- Could they rule just as well if they had a small house? (Point out that a palace is not just a home for the ruler, but an office and a place to meet other rulers, and for other rulers and their officials to spend time.)
- Why should a ruler have jewels and rich clothes?
- Does a ruler really need jewels?
- What about people who can't afford clothes?
- How might they feel?

Some might think it wrong for rulers to have jewels and rich clothes because the money to pay for them might come from taxes. You could explain that the Mughals, and others, sometimes got their riches from other rulers they had defeated in battles. Also they might use riches as gifts to other rulers in exchange for peace between their lands.

3. The students could answer this question after completing Lesson 5: Aurangzeb, the sixth Mughal emperor. Ask them to, read Unit 8 again and make notes about what they think was good and bad about how each emperor spent money. They could write their ideas on a chart like this:

Emperor	How he spent his money	Was this good or bad?	Why?
Babur			
Humayun			

Answers to Pupil's Book page 67

The students' illustrations should look like the Taj Mahal (page 68).

Answers to Skills Book page 39

1. The students write their own views.
2. As above.

Further activities

1. Find out more about the Taj Mahal or the Shalimar Gardens from travel brochures or the internet.
2. The students could make a booklet about one of these buildings, it could include photographs, drawings, and writing.

Lesson 5: Aurangzeb, the sixth Mughal emperor

Learning outcomes

Students should be able to:

- list the personal characteristics of Aurangzeb, the sixth Mughal emperor
- explain how Aurangzeb expanded the Mughal Empire
- express an opinion on how an emperor should use his wealth
- establish how members of a family should behave towards one another

Resources

- Pupil's Book pages 69–70
- Skills Book page 39 Riches of the rulers (for reference)

Pupil's Book steps

1. Begin with these questions:
 - Who was the fifth Mughal emperor?
 - Who do you think would become the next Mughal emperor after Shah Jahan? (his son)
 - Inform the students that they will now learn about Aurangzeb and that they will read about some of the things he did that will define his character.
2. Read the first paragraph on page 69. Ask:
 - Which member of the family do you admire more: Aurangzeb or his sister Jahanara?
 - Why?
 - What does this make you think about Aurangzeb?
 - Why do you think he treated his father this way?
3. Let the students read the rest of page 69 then ask:
 - What do you think was important to Aurangzeb, his family or the Mughal Empire?
 - Why do you think so?
4. Read 'It's a Fact' with the students and ask:
 - Does this change the way you feel about Aurangzeb? (The students might think this shows him to be a fair and just emperor. Some might think he should have treated his family the same way he did the other people in his empire.)
5. Ask the class to look at the two pictures on page 69 and to read the captions. Ask:
 - What do these tell you about Aurangzeb? (Religion was important to him: he prayed and built a mosque.)
 - Why do you think he had a painting made of himself praying? (Perhaps he wanted people to know that religion was important to him. He might have wanted to set an example for his people. These might have been reasons for building the mosque, too.)
6. Read the first paragraph on page 70 with the class and ask:
 - What do you think about Aurangzeb now?
 - What do you think was good about him?
 - What do you think was bad?
7. The students can then complete the exercise 'What do you think' from page 70.

Skills Book reference

Review the work done in Lesson 4 under the heading 'Riches of the rulers'

Answers to Pupil's Book page 70

The students give their own views, with reasons.

Further activities

1. Help the students write questions that will allow them to find out whether some of their views about Aurangzeb are correct: for example "Why did Aurangzeb make his father a prisoner?", "Did he have a good reason for this?", "Did he have good reasons for fighting his brothers?", "What did he do that shows he was a devout Muslim?"

2. Use books and the internet to get information that will help them answer their questions.
3. The students should attempt the CD activity.

Answers to Pupil's Book page 71

A.

Emperor	Father's name	What I remember about him
1. Babur	Omar Sheykh Mirza	Various facts from Unit 7 and Lesson 1 including: he won the Battle of Panipat, when he defeated Sultan Ibrahim Lodhi and took over the Delhi Sultanate. This gave him an empire. He founded the Mughal empire.
2. Humayun	Babur	Various facts from Lesson 1, including: he built an observatory; he had to leave Delhi because most of his army deserted him.
3. Akbar	Humayun	Humayun; Various facts from Lesson 2 including: like Babur he fought a battle at Panipat and won Delhi; he won all his battles and enlarged the Mughal Empire; he built Lahore Fort and many beautiful gardens and buildings and spent money on artists and writers.
4. Jahangir	Akbar	Various facts from Lesson 3, including: he travelled around his Empire with a luxurious camp; he spent money on a zoo and on the arts
5. Shah Jahan	Jahangir	Various facts from Lesson 4 including: he built the Taj Mahal, roads, mosques and gardens, including the Shalimar Gardens at Lahore.
6. Aurangzeb	Shah Jahan	Various facts from Lesson 5, including: he fought battles and enlarged the Mughal Empire; he built colleges and mosques.

- B. 1. Humayun 2. Jahangir 3. Aurangzeb
 4. Shah Jahan 5. Akbar

C. The students choose their favourite Mughal emperor and give reasons for their choice.

Unit 9 Science and exploration

Background knowledge for the unit

The focus of this unit is on scientific developments in 16th century Europe and the European exploration by sea.

New scientific discoveries were possible because of new machinery. The manufacture of better and sophisticated instruments, such as clocks, lenses, telescopes, microscopes, and improved astrolabes.

These new instruments meant that scientists could now observe and acquire more accurate measurements and also find evidence to support ideas and theories of long ago.

At about the same time, printing presses were made which meant that information could be recorded and spread more easily, (see Unit 11). Also sea travel improved therefore new ideas and places were discovered—and scholars travelled widely, met one another and shared information and ideas.

European scientists began to rediscover and analyze the work of scientists of the past, both in their own continent and farther away—that is why this age is known as the 'Renaissance' (rebirth). So began a time known as 'the Islamic Golden Age', when Baghdad was an important centre of learning from about the 9th century. It was influenced greatly by the Abbasid caliph Al-Ma'mun, who developed the House of Wisdom, which his father had founded as a society for scholars. Al-Ma'mun set up observatories and encouraged scholars of all subjects to go to Baghdad to learn and to share their learning. Also, very importantly, he paid scholars to translate important books on science, mathematics, and other subjects into Arabic from which he put together a huge library. He brought the world's learning to Baghdad!

Many people in ancient times thought that the Sun and other stars as well as the planets, moved around the Earth, because this is what appears to happen. The Christian church taught this and punished scientists who challenged this idea. However, many scientists in ancient times had made observations and measurements that didn't quite fit with this explanation. In the 16th century the Polish scientist Nicolaus Copernicus published his work on the solar system, with evidence to show that the Sun is at the centre of our universe, with the Earth and other planets orbiting it, while the stars are very far away and fixed (not moving).

Astronomy

The students will have read about the Mughal emperor Humayun's interest in astrology (studying the stars and planets in the belief that they influence our lives and that they can be used for predicting the future). It is useful to distinguish between astrology and astronomy. Astronomy is the scientific study of the stars and planets in order to find out more about them.

At the beginning of the 17th century Hans Lippershey and Galileo built telescopes which enabled them to make observations that proved that Copernicus was correct in surmizing that the Earth and planets orbit the Sun. Their measurements, using better and improved measuring equipment, suggested that there were other planets (Uranus and Pluto—Pluto is not considered to be a planet anymore), but these were not seen until more powerful telescopes were made.

The German scientist Johannes Kepler also studied astronomy and physics. He wrote that the Sun makes the planets move. He also wrote that the Earth had a soul and that the other planets can change the weather on Earth. Kepler was the first scientist to explain the shape of snowflakes (hexagons).

As ships improved, explorers began to travel farther and European sailors discovered lands that they did not know existed. This led to improved maps and to trading with the people in these lands. The main reason for exploration was to find a sea route to the Indian subcontinent for spices, so that they did not have to travel by land, which was more difficult, and because rulers such as the Ottomans would not allow them through.

New sea routes were discovered as sailors sailed around the world and found it was much bigger than they thought. European rulers began to compete for land for colonies, (see Unit 10). The explorers also discovered animals and plants they had never seen before. They brought home foods such as chocolate, pineapples, potatoes, and bananas as well as spices. There were battles between European explorers from different countries, as well as between the explorers and natives of the new lands they discovered.

Expected learning outcomes for the unit

When they have completed this unit in the Pupil's Book and Skills Book most students should be able to:

- identify the 15th to 17th centuries as a period of invention and discovery in Europe
- know that the European scientists, mathematicians, astronomers, and other scholars learned from the scholars of the 'Islamic Golden Age'
- identify some of the European explorers who discovered new sea routes around the world

They will learn how to:

- use sources such as maps, charts, paintings, and photographs to find out about people and events of the past
- ask questions and draw conclusions about people and events of the past

They will begin to understand:

- how scholars learnt from others in the past and how new technology influences learning
- why rulers paid explorers to sail to find new lands
- how religion can affect the work of scientists and other scholars

Lesson 1: The Islamic Golden Age; Muslim scholars

Learning outcomes

Students should be able to:

- describe the work of the scholars of the Islamic Golden Age
- explain how the Caliph Al-Ma'mun developed the House of Wisdom in Baghdad and collected Arabic translations of scholarly books
- explain the importance of the astrolabe and about the scientific discoveries in Arabic translations

Resources

- Pupil's Book pages 72–74
- Skills Book page 40 The Islamic Golden Age
- A map of the Middle East that has the names of the modern countries and the location of Baghdad marked on it

Pupil's Book steps

1. Tell the students that they will learn about science and exploration in Europe in the 16th century. In this lesson they will read about scientists that lived at least 700 years earlier in the Muslim Empire. Explain that all scholars learn from those who came before them and also explore, investigate, and experiment in order to learn more. Ask:
 - Which years were at the beginning and end of the 16th century? (1500 and 1599)
2. Tell the class that they will find out about scientists from the 9th to 11th centuries in Baghdad. Ask:
 - Do you know which country Baghdad is in? (Iraq)
3. Help them to find Iraq and Baghdad on a map of the Middle East. Ask the students to study the map on page 72 and point out the brown-shaded area that was the Islamic Empire in 750 CE. Tell them that the rulers were called Caliphs and that one of them, Al-Ma'mun, did some very important work with scholars.
4. Read page 72 with the class and ask:
 - What did Al-Ma'mun do that was important for science, mathematics, and all kinds of learning? (He collected books from all over the world and had them translated into Arabic. He encouraged scholars to go to the *House of Wisdom* to meet other scholars and learn.)
 - What shows that he valued learning? (He paid translators the weight of a book in gold when they translated it into Arabic.)
 - How did they copy the books? (They wrote them by hand.)
 - What did they write on? (a kind of paper)
 - Who were the first people to make paper? (the Chinese)
5. Discuss the photograph at the bottom of page 72 and ask the students to read the caption. They should then read 'It's a Fact' from page 73. Ask:
 - What does this picture show? (the mosque and university at Fes, Morocco)
 - Where is Morocco? (North Africa—ask the class to locate it on the map.)
 - Who paid for the mosque and madrasa that developed into a university? (Fatima al-Fihri—a rich woman)
 - Why did she do this? (She wanted to help people to learn.)
6. The students can now complete the exercise at the top of page 73 in their notebooks.
7. Ask them to read the rest of page 73 to find out:
 - i) the name of an important mathematician at the *House of Wisdom*, when he lived, and what he did that was important (Al-Khwarizmi invented algebra and the decimal point in the 9th century)
 - ii) about an instrument that helped scientists and mathematicians (the astrolabe)
 - iii) about an important scientist who wrote about medicine (Ibn Sina); then ask:
 - What was the astrolabe used for? (measuring the Earth and the heights of stars in the sky; finding the way across deserts; working out prayer times in different places)
8. Read 'It's a Fact' from page 73 with the class and ask:
 - Why do many words in science and mathematics come from Arabic? (The scientists of the 'Islamic Golden Age' in Baghdad invented them and the language used there was Arabic.)Mathematical and scientific words from Arabic include algebra, alchemy (trying to find a way to turn base metals into gold—an alchemist is the person who does it), alcohol, algorithm (a computer process), alembic (a still for distilling alcohol or perfume), alkali (a type of chemical).
9. The students can now complete the exercise at the top of page 74 of the Pupil's Book

Lessons 2 and 3 Science in Europe; Astronomy

Learning outcomes

Students should be able to:

- describe the work of some important European scientists
- explain how the work of scientists was viewed by the Christian church
- describe some inventions that helped scientists

Resources

- Pupil's Book pages 74–76
- Skills Book page 41 The universe to the 16th century scientists
- A map of Europe
- If possible, two lenses (e.g. spectacle lenses)

Pupil's Book steps

1. Show the students a map of Europe and ask them to name some countries in Europe. Let them find Poland and tell them that they will learn about an important, Polish scientist.
2. Ask them to locate Belgium on the map. Tell them that the name for the land that is now Belgium was Flanders and that the people from Flanders were known as Flemish. Tell the students that they will also find out about an important Flemish scientist.
3. Read the three paragraphs on page 74, about Science in Europe and the first paragraph of page 75. If necessary, explain the words that might be new (experiments, discovery, and invention—see the glossary on page 110). Explain that the 'solar system' consists of all the planets and their moons that orbit (go round) the Sun. Ask:
 - What was the name of the Polish scientist we have read about? (Copernicus)
 - What is he holding in the picture? (a model of the solar system with the Sun and planets)
 - What did he study? (astronomy)
 - What made it difficult for people to read about his work? (The Christian church banned his book.)
 - Why did the Christian church try to stop people from reading Copernicus's book? (The church taught that the Sun, moon, and planets moved round the Earth and that the Earth was the centre of the universe.)
4. Ask the class to look at Copernicus's diagram of the solar system then put these questions to them:
 - How is this different from modern diagrams of the solar system? (Two planets are missing—Neptune and Pluto; Pluto is no more classified as a planet.)
 - Why do you think these planets were missing? (They are the farthest from the Earth and so scientists could not see them.)
5. Ask the students to name the Flemish scientist they have read about, (Vesalius) Ask:
 - What did he study? (the human body/biology/medicine)
 - How did he learn about the body? (He cut open bodies.)
6. The students can then complete the exercise from page 75 in their notebooks.
7. Read the paragraph about astronomy on page 75. Ask the students to locate the Netherlands on a map of Europe. Tell them that this country is also known as Holland and the people of this country are called 'Dutch'. Ask:
 - What have you found out about a Dutch spectacle-maker? (His name was Lippershey and he invented the telescope.)

- How would this change astronomy? (Scientists could see planets that were farther away.)
 - How would it help explorers at sea? (They could see distant land.)
- If possible let the students hold two lenses one in front of the other, as shown in the picture on page 75, and look through them. Discuss what they notice. (The lenses should enlarge objects and make far off things seem closer. Thick, convex lenses work best.)
 - Ask the class to locate Italy on a map of Europe and tell the students that they will now read about an Italian scientist who also made a telescope. Read the text about Galileo on page 76 and ask:
 - How was the telescope useful to Galileo? (It helped him to prove that Copernicus was right about the Earth and other planets orbiting—going round the Sun.)
 - What problems did Galileo face? (The Christian church leaders imprisoned him because what he said and wrote did not agree with their teachings.)
 - The students could discuss the characters of Copernicus and Galileo, who continued with work that they thought important and tried to find the truth about the solar system, despite the church’s attitude. The students could also consider why the church would not accept the evidence the scientists found. (Perhaps church leaders were afraid that people would question other Christian beliefs or even leave the church.)
 - The students could then complete the exercise on page 76 in their notebooks.

Skills Book steps

- Read section 1 and ask the class to look for the information on page 74 of the Pupil’s Book.
- Remind them that astronomers in the 16th century did not know about Neptune or Pluto. Point out that the diagram is not drawn to scale; if it were it would not fit on the page!
Ask:
 - Where will you draw the stars? (around the edges of the diagram, beyond the planets)
- Tell the students that they need only draw a few stars and write the label ‘stars’.
- Review the meaning of ‘to orbit’ (to travel around something). They can then complete section 2, using pages 74–75 of the Pupil’s Book for reference.

Answers to Pupil’s Book page 75

He studied the human body.

Our planet

Copernicus knew of six of these.

On his map Copernicus put this planet nearest to the Sun.

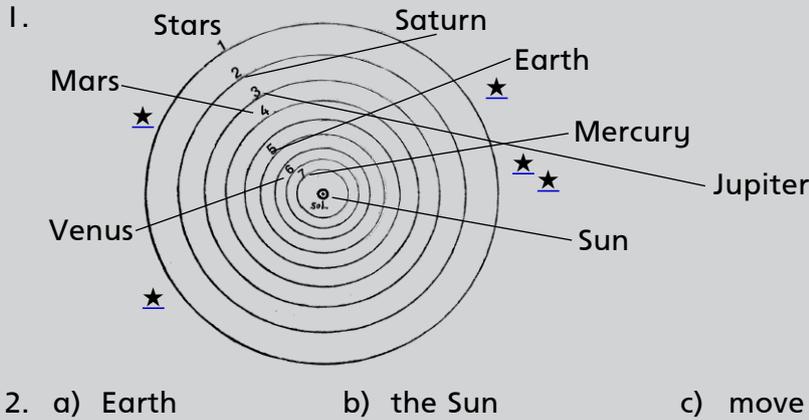
Copernicus said that the planets move round this.

				V	E	S	A	L	I	U	S
				E	A	R	T	H			
		P	L	A	N	E	T	S			
M	E	R	C	U	R	Y					
				S	U	N					

Answers to Pupil’s Book page 76

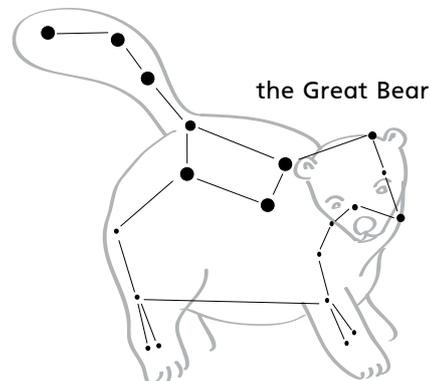
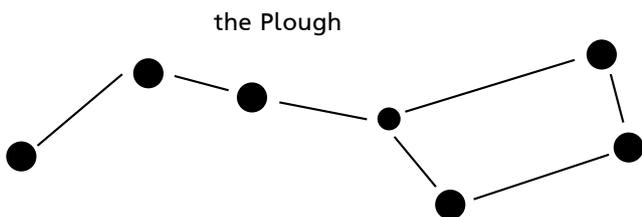
- The Earth and other planets **orbit** (go round) the Sun.
 - The **moon** orbits the Earth.
 - A spectacle maker in the Netherlands made the first **telescope**.
 - Galileo’s telescope helped him to see **craters** on the Moon.
 - He saw **four moons** going round Jupiter.
- B. The Sun (because it can harm your eyes)

Answers to Skills Book page 41



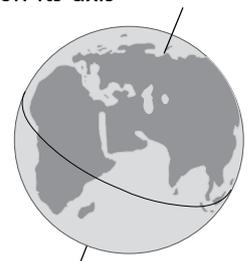
Further activity

1. Use the Internet or newspapers to find out when any planets will be visible and in which direction to look.
2. For homework, ask the students to look for the planets when the sky is dark enough. This will be easier in winter, when the Sun sets earlier. They should only do this with their parents' permission and in a safe place.
3. They could make a note of the planets they spotted and in which compass direction they looked. They will be able to do this even if they don't have a compass, as their parents will probably know which way is north, south, and so on. If they watch for five to ten minutes they should notice that the planet moves across the sky as it orbits the Sun.
4. The students could also look at the stars at different times during the evening.
5. Ask them to make a sketch showing the position of an easy constellation (group of stars) such as Ursa Major (the Great Bear, also known as the Plough)



The students should notice that stars stay in the same position. This is because they are very far away—much farther away than any planets and they do not orbit the Sun. Their position appears to change during the course of a night and day as the Earth spins. They reappear in roughly the same place the next night. They also shift very slowly over the course of the year as the Earth orbits the Sun. But Polaris is above the North Pole so it stays in the same place while the other stars seem to rotate around it as the Earth spins on its axis.

Earth spinning
on its axis



Lesson 4: Galileo

Learning outcomes

Students should be able to:

- describe Galileo's work on light, thermometers, and pendulums
- explain how 16th century scientists experimented and investigated
- use artefacts and pictures to learn about 16th century science

Resources

- Pupil's Book pages 77–78
- Skills Book page 42 Galileo's pendulum
- A map of Italy or one of Europe that shows the main towns of every country
- If possible, an old clock with a pendulum—or a picture of one
- A length of smooth wood such as a brush or wooden spoon, string, a smooth ring (metal, plastic, or wood), a heavy weight and a light weight (these could be stones of different sizes and weights), a watch with a seconds' timer, or a stopwatch

Pupil's Book steps

1. Ask the students what they know about Galileo. (He was a scientist who lived and worked in Italy. He used a telescope he made, to study the stars and planets.)
2. Let the class look at the picture on page 77. Ask:
 - What does this picture show? (the Leaning Tower of Pisa)
 - What is unusual about the tower? (It leans to one side.) Explain that the tower is famous because of the way it leans. This happened because it was built on soft ground and so began to sink.
3. Show the class a map of Italy and help them to find Pisa. Tell them that Galileo lived there and taught at the University of Pisa. He thought the Leaning Tower would be a good place to investigate how things fell through the air when he dropped them.
4. Show the class two identical, small, sealed, containers (e.g. small, plastic yoghurt pots or any other very small containers), one empty and one containing sand or other heavy material. Let them handle the containers. Ask:
 - If we dropped these do you think they would hit the ground at the same time?
 - Would one fall more quickly?
 - Which one?

Explain that if the containers don't have far to fall it will be very difficult to tell if there is any difference and that Galileo did not believe that weight made a difference. He said objects of the same size should land at the same time whatever their weights! He experimented to test his idea.

5. Ask the students to read the first paragraph of page 77. Point out that no one knows whether Galileo really did this but that he was right. Let the students try the investigations suggested in **Further activities**.
6. Inform them that Galileo also investigated light. He watched and listened to thunderstorms and noticed that the lightning was visible before the sound of thunder was heard. He thought that light travelled more slowly than sound from one place to another. Let the students read about Galileo's experiment on light. Ask what equipment we have today that would make this easier. (stopwatches, computers, microphones)
7. Read 'It's a Fact'. Tell the students that scientists now know that sound travels 1 kilometre in three seconds—this is much slower than light.

8. Ask them to read the rest of the page to find out about the other instruments that 16th century scientists had, to help them in their work. Ask:
 - How did Galileo's thermometer work? (Small balls of different weights moved up or down in a liquid as they got warmer or colder.)
9. Read the instruction for the exercise on page 78 with the students and ask them to imagine they are Galileo and have just conducted the experiment on light. Tell them that Galileo's full name was Galileo Galilei. Write this on the board. Let the students read pages 75 and 76 again to confirm when Galileo lived and what he did in his experiment. They can then choose any suitable date for the letter accordingly. The students can then complete the exercise in their notebooks.

Skills Book steps

1. Tell the class that they are going to learn about another experiment Galileo conducted—on pendulums. Ask if they know what a pendulum is. Show them a clock (or picture of one) with a pendulum and explain that it was used to make the clock work.
2. Let the students read the story of Galileo's pendulum. Ask:
 - What did Galileo want to know? (how long each swing of the lamp took)
 - What did he find out when he timed the swinging lamp? (Each swing took the same length of time.)
 - What did he find out from his later experiments? (The weight of a pendulum made no difference to the swing time. The length of the chain made a difference.)
3. Tell the class that they are going to investigate pendulums for themselves. Help them to follow the instructions.

Note: It is very important to change only one thing at a time: the length of the string or the weight.

- i) Begin with a long string (about 1.5 metres) and the heavy weight. Use a watch or stopwatch to time how long one swing (forwards and back) takes.
- ii) Write this in the first box on the top line of the chart.
- iii) Repeat this twice to check for accuracy, writing the times in the next two boxes on the top line of the chart.
- iv) Now repeat using the same weight but a shorter string (about half a metre). Write the times along the same row of the chart on the right hand side.
- v) Tie the light weight onto the long string. Use a watch to time how long one swing (forwards and back) takes. Write the time taken for each swing in the first box of the second row. Repeat this twice to check for accuracy, writing the times in the next two boxes of the chart.
- vi) Now repeat this using the same weight but a shorter string (about half a metre). Write the times along the same row of the chart on the right hand side.
- vii) Ask the students what they discover about the time; in general, the times for each string are about the same—with a heavy or light weight.

Answers to Pupil's Book page 78

The students write their own ideas in the letter. The address they write for Galileo should be 'University of Pisa, Italy', the date could be any year around 1609. The signature should say 'Galileo Galilei'.

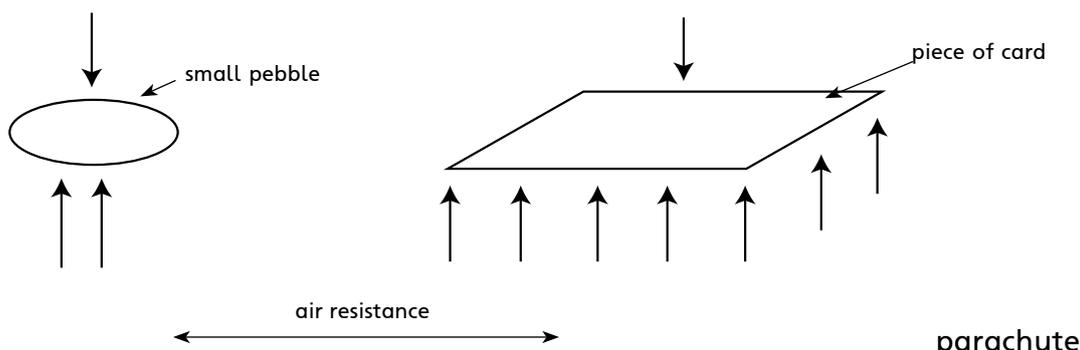
Answers to Skills Book page 42

The chart will show the results of the students' investigation.

Further activities

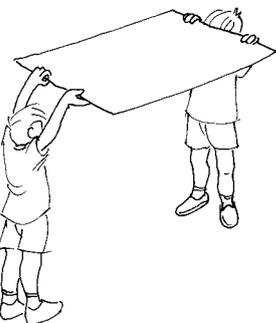
Try these investigations on air resistance:

1. When Galileo experimented on falling objects he found that it is not weight but air resistance that affects how quickly they fall. For example, a small pebble falls more quickly than a piece of card of the same weight, but this is because the card has a much larger surface area and when it falls much more air is trapped beneath it than beneath a pebble. Although we can't see or feel it, the air pushes upwards:

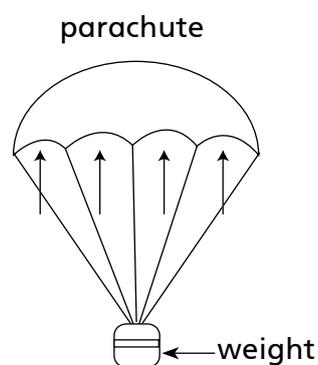
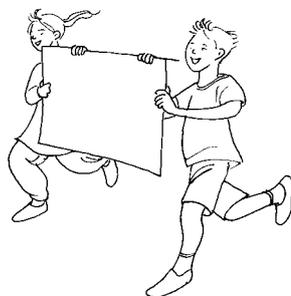


2. An object or person adds to the weight of the parachute, and so makes it heavier. It falls more slowly with the parachute, even though the parachute becomes heavier. A parachute slows a falling object because it traps a lot of air beneath it.
3. The students can experience air resistance for themselves by running across the school yard holding a large sheet of card, such as a large, flattened cardboard box:

(i)



(ii)



They first run holding the cardboard flat. Then they run holding it upright. Ask:

- What difference do you notice? (It is more difficult to run holding the card upright.)
- What causes the difference? (The card has more air to push out of the way when it is upright.)

Note: Scientists became more and more interested in making close observations and carrying out experiments. They dissected animals and even the bodies of dead people to find out how they worked. Galileo conducted experiments on many scientific ideas such as gravity and light.

Lessons 5 and 6: Explorers; Maps

Learning outcomes

Students should be able to:

- describe the achievements of 16th century European traders and explorers who looked for new sea routes around the world
- list the main reasons for this exploration
- use maps to find out about the voyages of the 16th century explorers

Resources

- Pupil's Book pages 78–80
- Skills Book page 43 Drake's voyage; page 44 The Golden Hind; page 45 Values
- A globe

Pupil's Book steps

1. Read the paragraphs about explorers on pages 78 and 79. Ask:
 - Why do you think the traders used to sail along the coasts to get from one place to another, instead of crossing the seas? (They could find their way more easily that way, even though it took longer. They had no maps of the seas or good navigation equipment and so would not know which way to go.)
 - Which explorer sailed across the Atlantic Ocean for the King of Spain? (Magellan)
 - Which continent was he trying to reach? (Asia) Explain that the usual way to get to Asia was to sail east for a short way and then go overland. The King of Spain wanted to find a sea route to Asia so that traders did not have to travel overland.
 - What happened to Magellan? (He was killed and all but one of his ships sank.)
2. Ask the students to look at the map on page 79 and read the caption. Explain that the red line shows Magellan's outward route (going west). The green route is the route of the ship that managed to get back to Spain. It appears on the east because this is a flat map (not a globe) and the ship sailed across the Pacific Ocean to the Far East. It crossed the Indian Ocean to the southern part of Africa. Then it sailed up the west coast of Africa and back to Spain.
3. Read 'It's a Fact' with the class and ask the students to name two new animals the explorers saw (penguin and llama). Ask:
 - Which of Magellan's five ships got back to Spain? (Victoria)
 - What happened to Magellan? (He was killed.)
4. The students can now discuss the questions on page 80 and note their answers. Give them time to do this then ask different groups to read their answers. The others should listen and, when they have finished, suggest corrections if required. You could write these answers on the board which the students copy into their notebooks for reference.

Skills Book steps (Page 43 Drake's voyage)

1. Tell the class that they will now find out about another 16th century European explorer—Francis Drake, from England.
2. Read the story of Drake's voyage with the class. As you do so, ask them to mark his journey on the map, starting from the south of England, going across the Atlantic Ocean to Brazil. Continue the line southwards, down the east coast of South America and then northwards, up the west coast, stopping off the coast of Peru.
3. Continue the line across the Pacific Ocean to the edge of the map and ask,
 - Where did Drake go next?

- Remind the students that this is a flat map and they should imagine that the sides are joined—so the line reappears on the east, near Indonesia. If possible, show them the route on a globe. Continue the line westwards around Indonesia, across the Indian Ocean towards the southern part of Africa, around the south coast of Africa, up the west coast of Africa to Portugal, and then on to the south of England.
- After tracing the route of the voyage, the students should read the text again and use symbols to mark where on the route Drake attacked Spanish ships and where his ships sank: e.g. a cannon to show a battle and a splash to show a sinking ship. They should make a key to say what the line they have drawn shows and what the symbols mean.

Skills Book steps (Page 44 The Golden Hind)

- Inform the students that they will now take a closer look at a 16th century European ship. Ask them what they know about Drake. They could read page 43 again for information.
- Give the class time to read about the Golden Hind and look at the picture reading its captions. Ask:
 - Whose ship was this? (Francis Drake's)
 - Where was he from? (England)
 - What type of ship was the Golden Hind? (a galleon)
 - What was special about a galleon? (It was a new type of ship, made from wood, and could be used for fighting or trading.) Point out the hold where the cargo could be kept. Also point out the cannons that could be used in battle.
- The students can then complete the crossword puzzle about 16th century ships, explorers, and traders.

Skills Book steps (Page 45 Values)

- Tell the class that they are going to contemplate two of the changes that stemmed from the new discoveries in science and exploration—how people thought about the solar system and the languages that people spoke around the world.
- Explain that Christians followed the teachings of the church. Discuss what happened when scientists began to show that this was wrong.
- The students should complete the speech bubbles to show what the church leaders and the astronomers might have said about the solar system. Some of them could read these out to the class and compare their answers.
- Ask the students to read the speech bubbles at the bottom of the page and to say which countries these languages are of; (Dutch—the Netherlands/Holland, Portuguese—Portugal, French—France, Spanish—Spain, English—England, and the rest of Britain).
- The students can then discuss why these European languages have spread around the world and are still spoken in many other countries.
- They can now answer question 2.

Answers to Pupil's Book page 80

- silk and spices
- No one in their own countries could make silk. They did not have spices in their countries.
- west
- They had no maps and could not easily tell where they were. Their ships were slow as they used wind power. (It took three years for one of Magellan's ships to sail round the world.) So they had to make sure they had plenty of food and water in case could not get more for a long time.
- It was much slower and they did not know which land they would find.

Answers to Skills Book page 43

The students should draw a line that approximately follows this route, with battles shown where there are crosses and ships sinking where there are stars. (The route shown is approximate. It matches the description in the text. The places where the ships sank are shown approximately.)



Answers to Skills Book age 44

	¹ S			² S	P	I	³ C	E	⁴ S
	E			I			A		P
⁵ M	A	⁶ G	E	L	L	A	N		E
A		A		K			N		E
S		L				⁷ G	O	L	D
⁸ T	A	L	L		⁹ H		N		
S		E		¹⁰ C	O	A	S	T	S
		O			L				
¹¹ H	I	N	D		¹² D	R	A	K	E

Answers to Skills Book page 45

- Christian church leaders: The Moon, Sun and planets orbit the Earth. The Earth is at the centre of the universe. We will not allow scientists to write that the Sun is at the centre of the universe.
Copernicus and Galileo: The Earth and other planets orbit the Sun. The Sun is at the centre of the solar system. (or similar answers)
- Explorers from these countries travelled around the world and traded with people, who learned their languages so that they could trade with them. Europeans might have settled in the places they visited. (or a similar answer)

Further activities

1. The students could compare the routes that Drake and Magellan followed as they sailed west around the world.
2. They should consult the map on page 79 of the Pupil's Book and their own completed one on page 43 of the Skills Book.
3. The students should attempt the CD activity.

Answers to Pupil's Book page 81

- A.
1. He had books on science, mathematics, and other subjects from around the world translated into Arabic and stored them in the library of the House of Wisdom in Baghdad. He also encouraged scholars to meet there to share ideas and learn new things.
 2. paper-making
 3. printing, using a printing press
 4. The planets orbit the Sun.
- B. astrolabe—for measuring the height of stars in the sky; telescope—for making far-off things seem nearer; thermometer—for measuring temperature; microscope—for making small things seem larger
- C. People in the 16th century learnt that ships could **sail west** to get to Asia from Europe. They also learnt about **animals** that they had never seen before.

Unit 10 Colonization

Background knowledge for the unit

This unit explores how European traders settled in, and began to colonize new lands that they discovered far from their homes, during the 16th century. In fact Europeans had tried to colonize North America more than five hundred years before that. Norse sailors (usually known as Vikings) explored and settled along the north-eastern coasts of North America. They were looking for wood because trees took a long time to grow in their own cold lands. However the settlements were small and did not become permanent colonies, partially because the native people fought them off. The 16th century, European explorers did not seem to know about these Norse settlers.

In many places Europeans traded peacefully with the native people and even settled among them. In others there were battles which the Europeans generally won because they had better weapons.

The Europeans mainly bought spices and silk, which they could not produce in the countries where they lived. Spices were so valuable that only rich people could not afford buy them; they kept them locked in cupboards. Traders brought spices such as nutmeg, cloves, and sandalwood from the 'Spice Islands' (mainly the Moluccas, near Indonesia) to India to sell to traders from Europe. The Portuguese developed their colony of Goa, in India, through this trade. Christopher Columbus tried to find a route to China by sailing westwards from Spain, across the Atlantic Ocean in 1492. This was long before Magellan or Drake did so (see Unit 9) but he thought the Earth was much smaller than it really is, and when he reached the Bahamas he thought they were the 'Indies' (islands near Indonesia). The explorers gave many of the new lands names, ignoring any names they already had, or they changed the names to be more like their own languages. When Christopher Columbus landed in the Bahamas he claimed the land for the King and Queen of Spain, even though people already lived there! But the Bahamas never became a Spanish colony. They became a British colony in the 18th century, and gained independence in 1973. In his later voyages across the Atlantic Ocean Columbus claimed other lands for Spain and they became colonies: Hispaniola (now Haiti and the Dominican republic), Puerto Rico, and Jamaica (only until around 1524; it became a British colony in the 17th century).

During the sixteenth century huge numbers of explorers set off across the oceans looking for new land, mainly because this was a way to become rich. European rulers paid them well and gave them land in the colonies.

This unit features Portuguese colonizers in Goa and Brazil, and the Spanish in the Bahamas, Cuba, Puerto Rico, and Mexico.

Goa was a Portuguese colony from the early sixteenth century until 1961 (about 450 years). It is the smallest state of India in size, the fourth smallest by population, and India's richest state. Portuguese cultural influence can still be seen in the old city of Margao.

Slavery developed during colonization but this was not new. The students will have learned about slavery in ancient civilizations such as Ancient Greece and Ancient Egypt.

Expected learning outcomes for the unit

When they have completed this unit in the Pupil's Book and Skills Book most students should be able to:

- define and describe colonization
- realize that the sixteenth century was a time of exploration and colonization by the Europeans

- describe some of the native people the European colonizers met and what happened to them and their cultures

They will learn how to:

- use sources such as maps, journals, charts, paintings, and photographs to find out about people and events of the past
- ask questions and draw conclusions about people and events of the past

They will begin to understand:

- how colonization changed the lives of people in the colonized lands and in other countries
- why rulers wanted to set up colonies

Lesson 1: The Portuguese in India

Learning outcomes

Students should be able to:

- explain what is meant by colonization
- explain how colonies were useful to rulers of European countries
- list facts about the Portuguese colony, Goa

Resources

- Pupil's Book pages 82–83
- A map of the world

Pupil's Book steps

1. Tell the class that they will learn about European explorers who sailed to far-off places to claim land for their kings and queens so people from their countries could settle there. Explain that land ruled by a far-off country is called a colony.
2. Tell the class that they will learn about a European colony in India. Ask them to locate Portugal and India on a map of the world.
3. Read the first two paragraphs from page 82 with the class. Show them the location of Goa on a map. Ask:
 - What did the King of Portugal want sea captains to look for? (riches, such as gold, silk, and spices)
 - Where did the Portuguese start a colony in India? (Goa)
 - Why was this useful for traders? (Traders from the Far East brought spices to India.)
4. Let the students study the pictures of spices and read what is written about them. Ask:
 - What are these spices used for? (cooking, incense, and perfume)
5. Read the rest of page 82 with the class. Ask:
 - Do you think the Europeans had always known where the spices came from? (No, because the traders kept this a secret, but they soon found out.)
 - Apart from trading, what did the Portuguese want to do in their colony? (They wanted the people there to become Christians.)
 - Did they do this? (Not all of them because some people only pretended to be Christians but continued to follow their own religions.)
 - How did the Christian priests treat people who refused to become Christians? (They put them in prison and even killed some of them. Many modern Christians are ashamed of this.)

6. Ask the students to read 'It's a Fact' on page 83. Ask:
 - Does any of this surprise you?
 - Why?
7. They can now complete the exercise on page 83 in their notebooks.

Answers to Pupil's Book page 83

- A.
1. Land that a country captures and rules is called a **colony**.
 2. A small country in Europe that captured land in India was **Portugal**.
 3. The king of Portugal wanted new land that had **gold, silk, or spices**.
 4. The Christian Church wanted to **make the people in Goa, Christians**.
- B. Spices did not grow in Europe and were very expensive. Rich Europeans showed off their wealth by serving spicy meals to guests.

Further activities

1. The students could find out more about Goa: what remains to remind us of Portuguese colonization; for example, language, buildings, people, religion.

Lesson 2: Christopher Columbus's first voyage

Learning outcomes

Students should be able to:

- describe Christopher Columbus's voyage west to discover a route to China and India
- explain why sea routes around the world were important for traders of silk and spices
- explain why European kings and queens wanted overseas colonies

Resources

- Pupil's Book pages 83–84
- Skills Book page 46 Claiming a colony I
- A map of the world
- A map of Europe

Pupil's Book steps

1. Show the students a map of Europe and ask them to locate Spain. Tell them that they will learn about an Italian explorer who searched for colonies for the King and Queen of Spain—Christopher Columbus.
2. Read the first three paragraphs about Christopher Columbus's first voyage from page 83. Ask:
 - Why didn't Columbus just sail east—the known route to India? (Traders had to cross land and follow the Silk Road to get to China; this was always slow and dangerous.)
 - In which year did he set off? (1492)
 - In which century was this? (the 15th, near the end of the century)
3. Ask the class to study the map Columbus used and to compare it with a modern map of the world. Then ask:
 - How is this different from a modern map?
 - Why? (Most of North and South America is missing and the land that is included is of a different shape. This is because the European map-makers did not know what land lay there.)

- Let the students read the last paragraph on page 83. Ask:
 - What mistake did Columbus make?
 - Why? (When he reached the Bahamas (islands near America) he thought he had reached the Indies (islands near Indonesia) because he believed the Earth to be much smaller than it actually is.)
- Discuss the map on page 84 with the students and help them to describe the route, saying where Columbus began his voyage, which seas or oceans he sailed across, which lands he sailed close to, naming any places where he went ashore.
- The students can then complete the exercise on this page in their notebooks.

Skills Book steps

- Read 'What I will learn' with the class and ask:
 - What do you know about why countries captured far away land for colonies? (for trade, to find riches such as gold, silk, and spices, to become rich, and sometimes to convert other people to their religion) Point out that although Columbus claimed this land for Spain, he sailed home and it never became a Spanish colony. However when he next crossed the Atlantic Ocean he claimed other lands for Spain and they became colonies.
- Ask one of the students to read the instruction for section 1 aloud. They should read the text in the bubbles and fill in the gaps.
- Ask the students to work in pairs to discuss section 2 before writing their answers.

Answers to Pupil's Book page 84

- A.
- To find a new route to India and China
 - He did not know that there was land between the west of Europe and Asia. He thought the Earth was much smaller than it really is.
 - any two from: Canary Islands, Hispaniola, Cuba, the Azores, the Bahamas.
- B. Maps would now include America and would show the world much larger than in older maps.

Answers to Skills Book page 46

- Christopher Columbus: I want to find a way to **India** by sailing **west** across the **Atlantic Ocean**.
The King and Queen of Spain: We hope that Columbus will find **colonies** that have gold, silk, or spices.
Spanish explorers and soldiers who went to Hispaniola and Mexico after Columbus: We want to become **rich**.
The leader of the Christian Church: I want to make the people in the new lands **Christians**.
- Any answers from: They didn't want to fight their neighbours. They wanted more trade. They could get things their own countries didn't have such as silk and spices. They wanted to spread their religion. If the students come up with different ideas ask them for facts to support these.

Further activities

- Choose a colony to find out more about.
- The students could first write some questions about it and then decide where they will look for answers.

3. They could record their findings on a chart like this:

The colony we want to find out about:		
Our questions	Where we will look for the answers	Answers

Lesson 3: Christopher Columbus and the native people of the Bahamas

Learning outcomes

Students should be able to:

- use journals and pictures to find out about how explorers brought change to the Bahamas and the lives of its people
- explain how events in history introduced new words into languages

Resources

- Pupil's Book pages 84–85
- Skills Book page 47 Claiming a colony 2
- A map of the world or a map of America that shows the Bahamas

Pupil's Book steps

1. Ask the students what they know about Christopher Columbus. (He was an Italian sea-captain who sailed west across the Atlantic Ocean to find a route to India and China.)
2. Tell them that Columbus made three more voyages across the Atlantic Ocean, landing on different islands off the west coast of Central America. After each voyage, he told people that the islands he found were part of Asia but many began to question this claim.
3. Read the text about Columbus on page 84, including the extract from his journal. Explain that a journal is a diary and that most explorers kept a journal or had someone else make notes and record events for them. Ask:
 - What does this tell you about Columbus's opinion of the native people of the Bahamas? (Listen to their ideas and ask whether Columbus respected the people. He knew that he and his men could conquer them and was ready to take advantage of his power. He was sure that he could treat them any way he saw fit: make them servants, convert them to Christianity, etc.)
4. Let the students read the first two paragraphs of page 85 and look at the pictures on this page. Ask:
 - What did Columbus take back to Spain?
 - What harm did the Europeans cause the people of the Bahamas? (They took so many slaves that very few native people were left.)
5. It will be useful to remind the students that slaves are owned by the people they work for and cannot go anywhere without permission. They are usually not paid for the work they do. Columbus might have meant 'slaves' when he said 'servants'.
6. Discuss the fact that although Columbus said he was claiming the land for Spain, the Bahamas never became a Spanish colony. In his later voyages across the Atlantic Ocean Columbus claimed other lands for Spain and they became colonies. Tell the students that they will learn about those colonies in the next lesson.
7. Ask them to read 'It's a Fact'. Then ask the following questions:
 - What did European explorers learn from the natives of the Bahamas? (how to make a hammock)

- How would this be useful on ships? (It doesn't take up much space and can easily be taken down during the day.)
8. The students can now complete the exercise in their notebooks.

Skills Book steps

1. Let the students know that they will find out from Columbus's journal what he and his men said and did when they landed in the Bahamas and met the native people.
2. Help them to read the introduction on this page and discuss the pictures, information, and the words of Columbus. Ask:
 - What important things did Columbus and his men take on land with them when they got to the Bahamas? (The flag of the King and Queen of Spain, a sword, and a pole with a flag on it and a Christian cross at the top)
 - Why were these things important? (the flags showed that they represented the King and Queen of Spain, the sword showed power, the cross showed that they were Christians and wanted to bring Christianity to the area.)
3. The students can now complete Exercise 1, and discuss Exercise 2 with a friend before acting it out and answering the questions.

Answers to Pupil's Book page 85

Columbus wanted to make the people of the Bahamas change to this religion.

Land a country captures to rule

The people in the Bahamas slept in this type of bed.

----- people are people who belong to a place.

A type of corn that Columbus took back to Spain

C	H	R	I	S	T	I	A	N		
			C	O	L	O	N	Y		
				H	A	M	M	O	C	K
N	A	T	I	V	E					
M	A	I	Z	E						

Answers to Skills Book page 47

1. Cross. It showed that they were Christians and wanted to bring Christianity to the area
2. Sword. It showed power.
3. Flag. It showed that they represented the King and Queen of Spain.

Further activities

1. Find out what happened to the people of the Bahamas after Columbus claimed the islands for Spain.
2. Find out what happened after they became a British colony in the eighteenth century,
3. Find out which people live there now.

Lesson 4: Spanish colonies in South America

Learning outcomes

Students should be able to:

- describe the first Spanish colonies in South America
- explain how colonization changed places and people
- use maps, pictures, and journals from that time to find out about the past

Resources

- Pupil's Book page 86
- A globe or map of the world, or a map of America

Pupil's Book steps

1. Inform the class that they will find out about other lands that Spain claimed as colonies and kept as colonies for a long time: Hispaniola (now Haiti and the Dominican Republic) and Cuba. Help the students to locate these places on a map of the world or one of America.
2. Write the questions given below on the board and ask the students to find the answers on page 86. The class could be divided into four groups. Delegate a question to each group, that they will find the answer to.
 - i) Why did many Spanish explorers go to Hispaniola?
 - ii) Do you think these explorers went peacefully? How can you tell?
 - iii) What happened to the native people of Hispaniola?
 - iv) What happened to stop the native people fighting the Spaniards?
3. Read 'It's a Fact' with the class and ask:
 - What have you found out about the character of the chief of Hispaniola? (He was brave and wanted to protect his land and people by getting help from a neighbouring leader.)
 - Why were the Spaniards always successful in defeating the native people? (They had more powerful weapons than the natives. You could also mention that they might have had help from some native people who might have been paid to act as spies; otherwise they would not have known what the native chieftain did. Colonizers often got local people to help them by giving them money, land, or gifts, and by protecting them with their weapons.)
 - What can you find out about the religion of the native Hispaniola people? (They made illustrations of their gods and one of these gods looked like a bird.)
4. The students can now complete the exercise in their notebooks. Tell them that paragraph 3 and 'It's a Fact' will help them to answer section B.

Answers to Pupil's Book page 86

1. True
2. False. They took many weapons there and killed a chief of the native people.
3. False. They worshipped different gods.
4. True
5. False. They took gold and land from them, made them slaves, and fought them.
6. True. They had guns, cannons, war horses, and fighting dogs.
- B. The chief was right when he said that the Spanish worship gold and kill people for it because they killed the people in Hispaniola for gold.

Further activities

1. Find out how Spanish colonization has changed Hispaniola.
2. The students could use books and the Internet to find out about the people who live there now, their language, the work they do, their main religions, and the buildings and culture of Hispaniola.

Lesson 5: The Portuguese in Brazil

Learning outcomes

Students should be able to:

- explain how the Portuguese set up a colony in South America
- use maps, pictures, and journals of that time to find out about the past

Resources

- Pupil's Book pages 87–88
- A globe or map of the world, or a map of America.

Pupil's Book steps

1. Inform the class that they will learn about a Portuguese colony in South America. Read page 87 and ask:
 - What did the Portuguese do that helped them to colonize Brazil? (They made friends with some native people and assisted them in fighting their enemies. In return these people helped the Portuguese.)
 - How did the Christian priests treat the native people? (They worked with them and learned their language, they saved many from becoming slaves.)
2. Ask the students to read 'It's a Fact' and find out about something that the Portuguese wanted from Brazil. (They wanted Brazilwood to make a red dye.)
3. Ask the class to look at the map on page 87. Tell them that it was drawn in the 16th century and ask:
 - What can you find out from it about the life and work, and about the Portuguese, in Brazil at that time?(It was covered with forests where snakes, monkeys, and brightly-coloured birds lived. The native people cut down trees. The wood was taken away in Portuguese ships. The woodcutters didn't wear clothes but some people—perhaps chieftains—wore clothes and headdresses made from feathers and other materials.)
4. Ask the students to read the two paragraphs at the top of page 88 to find the answers to these questions:
 - What crops did the native people grow? (maize, cassava, peanuts, beans, sweet potatoes, yams, pumpkin, and peppers)
 - What else did they eat? (animals that they kept; near the coast, fish)
 - What happened to the native people of Brazil? (They caught some diseases from the Europeans and they died because these diseases were new to them.)
5. Explain that our bodies make antibodies that fight diseases when the attack from these diseases is mild, but the people of Brazil had no antibodies to fight against the diseases.
 - How do we know all this? (from the writings of priests)
6. The students can now complete the exercise in their notebooks.

Answers to Pupil's Book page 88

1. Brazilwood to make red dye.
 2. The natives caught diseases from the Portuguese, which killed them.
 3. They worked with them and learned their language and saved many from becoming slaves.
 4. Many priests in Goa tried to force the people to become Christians and punished or even killed them if they refused.
- B. The language of Brazil is Portuguese. The main religion is Christianity.

Further activities

1. The students could make a classroom display about the Portuguese colony of Brazil.
2. Include maps, and drawings of the land and animals.
3. They could find out how much forest remains there and what is happening to it. This could be linked with work on caring for the environment.

Lessons 6 and 7: Mexico

Learning outcomes

Students should be able to:

- describe the Aztec civilization that the Spanish explorer Cortez discovered in South America
- use journals from that time, maps, pictures, and models to find out about the past

Resources

- Pupil's Book pages 88–89
- Skills Book page 48 The natives; page 50 The Portuguese and Spanish colonies (This could also be used as an extra test at the end of the unit.)
- A globe or map of the world, or a map of America

Pupil's Book steps

1. Inform the students that they are going to find out about an ancient civilization that the Spanish explorer Cortez discovered in South America. Help them to locate Mexico on a globe, map of the world, or map of America. Tell them that Cortez sailed to the east coast of South America in 1519. Ask the class to read the first paragraph about Mexico on page 88 then ask:
 - Why do you think he made friends with some native people of Mexico?(They could show him the way to the centre of Mexico. They might be helpful as translators and to prevent attacks on Cortez.)
2. Ask them to read the next paragraph and invite volunteers to say what they have learned about the Aztecs. They can then read what the Spanish sailors wrote about Tenochtitlan. Ask:
 - What do you think the Spanish sailors felt when they saw Tenochtitlan? (They were amazed at its size and beauty. They wrote that the houses were 'amazing to see'.)
3. The students can then look at the photograph of the remains of the temple on page 88 and the map and model of Tenochtitlan on page 89. Tell them that these are modern—made for a museum, to show people what the historians and archaeologists think Tenochtitlan looked like. Invite others to say something about the city.
4. Ask the class to complete the exercise in their notebooks.

Skills Book steps (Page 48 The natives)

1. Tell the class they will be reading what Spanish sailors wrote about the native people they met in the Bahamas and Mexico. Ask a few students to read the descriptions of the native people of the Bahamas and the Aztecs aloud. They should also look at the Aztec illustration on page 91 of the Pupil's Book to find out more about their weapons. Ask:
 - Describe the homes and other buildings of each country.
 - What did they use for transport?
 - How were their religions different?
 - How were their clothes different?
 - What were their weapons like?
2. The students can then complete the exercise.

Skills Book steps (Page 50 The Portuguese and Spanish colonies)

This could be used as an extra test at the end of the unit.

1. Review, with the class how a crossword puzzle is completed: point out the clues for the words that are to be written across and down the puzzle. Remind them that they should write one letter in each box.
2. Explain that the clues don't always follow the sequence of 1, 2, 3, and so on. Point out 2 across on the puzzle and show the students that there is no word going down from 2, so there is no number 2 in the clues under 'Down'.
3. Ask the students to see how much of this crossword they can complete without consulting the Pupil's Book—just using their memories. They might remember what they have learned but may find the puzzle difficult to complete. If so, it could be completed with class participation, copy it onto the board or on a large sheet of paper. Ask the students to answer the clues and write them on the puzzle for them to copy.
4. Review the fact that the number that follows each clue gives the number of letters in the word/s to be written.
5. The students can consult the Pupil's Book to check their answers and see if they have forgotten anything. Point out that at the end of each clue there is a note telling them which page of the Pupil's Book to read.

Answers to Pupil's Book page 89

The students write their own descriptions of Tenochtitlan, using the words in the box to help them.

Answers to Skills Book page 48

	The people of the Bahamas	The Aztecs
Homes	wooden huts with grass roofs hammock	stone buildings
Other buildings	wooden, with grass roofs	big stone buildings such as temples and schools—a ball-game pitch.
Transport	canoes made from tree trunks	canoes made from tree trunks
Religion	They seemed not to have any religion.	many gods that they worshipped in temples
Weapons	no modern weapons	spears, axes, bows, and arrows

Answers to Skills Book page 50

A. Across

1. Texcoco
2. canoe
4. Moctezuma
6. Christian
8. Brazilwood

Down

1. Tenochtitlan
3. Brazil
5. Cortez
6. Columbus
7. hammock

- B.
- | | |
|-----------|------------------------------------|
| canoe | a bed that hangs from poles |
| hammock | a very strong wind |
| hurricane | a root vegetable |
| iguana | a type of boat |
| potato | a plant used for making cigarettes |
| tobacco | a type of lizard |

Further activities

1. Show the students pictures of Aztec buildings, art, and crafts in books and on the Internet.
2. They could choose a building or other object to research.
3. Ask them to draw a picture of it and write a report about it.
4. Their pictures and reports could be made into a class book on the Aztecs.

Lesson 8: Cortez in Mexico

Learning outcomes

Students should be able to:

- explain how Cortez conquered the Aztecs and started a Spanish colony in Mexico
- explain how colonization changed people and places

Resources

- Pupil's Book pages 90–91
- Skills Book page 49 A Spaniard and an Aztec; page 51 Values

Pupil's Book steps

1. Tell the class that they will find out what Cortez did when he got to Tenochtitlan and met Moctezuma.
2. Read page 90 with them. Ask:
 - What did Cortez do? (marched into Tenochtitlan with a large army, captured the city without harming the Aztecs; left some of his men there and went to capture other places; went back to Tenochtitlan two years later and recaptured it because his men had been fighting the Aztecs and trapped them in the city)
3. Ask the class to look at the picture on page 90 and read the caption. Ask:
 - What made Tenochtitlan a safe place? (It was on an island in a lake. Enemies could only get to it by boat or across the causeways. The Aztecs would see them coming in plenty of time to defend themselves.)
 - What weakness did the city have? (Its water supply came from outside. The lake water was not fit to drink. An enemy could cut off the water supply, as the Spaniards had done.)
4. Discuss the picture on page 91 with the class and ask what they can find out about the Aztecs and about the battle against the Spaniards, from it.

Skills Book steps (Page 49 A Spaniard and an Aztec)

1. Tell the class that they will read two different reports of the first meeting between Cortez and Moctezuma. They were both written at the time—one by a Spanish sailor and the other by an Aztec.
2. Invite a student to read the Spaniard's report aloud (perhaps with a partner so that they can help one another). Let another student read the Aztec's report of what Moctezuma said to Cortez. Ask:
 - When you read the Spaniard's report what did this make you think Moctezuma was trying to do? (He seemed to want to show Cortez his power and importance but he also seemed to treat Cortez as someone important because he gave him a gold necklace.)
 - Did Cortez treat Moctezuma as important? (No. He gave him some cheap, painted beads.)
 - When you read the Aztec's report, what did you think about how Moctezuma treated Cortez? (He treated him as if he was a god or not really human, because he said, 'You have come out of the clouds' and 'You have come from the sky.')

- Ask the students to complete Exercise 1 to say what happened during the meeting between Cortez and Moctezuma.
- They could discuss question 2 before writing their answer. Ask the students to look for clues in what Moctezuma said. They should also read the first paragraph on page 90 of the Pupil's Book, again.

Skills Book steps (Page 51 Values)

- Read the introduction to this page and section 1 with the class. Ask them about each place on the chart:
 - Which Europeans claimed land there?
 - What did they do that changed the lives of the people there?
 The pages of the Pupil's Book that will help: Goa (pages 82); the Bahamas (pages 83 to 85); Puerto Rico (page 86); Brazil (pages 87 to 88) and Mexico (pages 88 to 91).

Answers to Pupil's Book page 90

The answers are open-ended.

Answers to Skills Book page 49

- | | |
|--|---------------------------|
| 1. Moctezuma gave Cortez | the sky. |
| 2. Cortez gave Moctezuma | costly presents. |
| 3. Moctezuma wanted to show the Spaniards | cheap presents. |
| 4. Moctezuma thought the Spaniards came from | that he was a great king. |
- No. He said "Now you have come out of the clouds and must sit on your throne again. You have come back to us." It sounds as if he thought Cortez belonged there and he had been waiting for Cortez to come back. In the Pupil's Book it says that the Aztec priests said that men with beards and carrying weapons and armour would come.

Answers to Skills Book page 51

- | Colony | Changes |
|----------------|--|
| 1. Goa | The spice trade grew. Some became Christians. Some were given important jobs. These who didn't become Christians were put in prison or killed. |
| 2. Bahamas | So many became slaves for Europeans that very few were left. |
| 3. Puerto Rico | Some ran away from their homes and hid in the hills. Some died of European diseases. Many became slaves for Europeans. |
| 4. Brazil | They traded and worked with the Portuguese. Some became slaves but not as many as in the Bahamas or Puerto Rico. Some died of European diseases. Brazil became a Christian country. The people still speak Portuguese. |
| 5. Mexico | The Spaniards killed many of them and destroyed their civilization. Mexico became a Christian country and the people still speak Spanish. |
- to get riches such as gold, silk, and spices
 - to build an empire
 - to make people Christians (Another reason could be to capture slaves as cheap workers.)

Further activities

1. Ask the students what they can recall about events in Tenochtitlan.
2. Write the main points on the board in note-form: Aztec priests said men with beards and armour would come; no one must harm them; Cortez took city—no harm to Aztecs; went to take other places; left men in Tenochtitlan; battle; killed Moctezuma; Aztecs drove them out; Spaniards surrounded city; stopped water supply; Cortez back after 2 years; took city; built Mexico City on top.
3. Ask the students to write the story of what happened, in sentences, using the notes to help them.
4. The student should attempt the CD activity.

Answers to Pupil's Book page 92

- A.
1. far-off land that a country takes over and rules
 2. Goa
 3. Brazil
 4. Hispaniola, Cuba, Puerto Rico
 5. tenochtitlan
 6. Mexico City

- B. The students should use information from the unit to help them to complete their letters, for example:

Tenochtitlan
8 November, 1519

Dear **[Any name]**

Yesterday I was near the temple when I saw **armed men/soldiers** come into the city. They were amazing to see. They had **weapons and armour**. Their leader is Cortez.

Our Emperor **Moctezuma** went to greet them. He greeted them kindly. They captured our city but did not harm us.

I wonder what will happen. My father said that we must not harm them because **our priests said they would come and that no one must harm them**. He thinks they will **help us**.

Perhaps they will **attack us**.

With best wishes
[Any name]

- C. The three sentences should include:
- Europeans took native people as slaves.
 - Many native people caught diseases from the Europeans and died.
 - Some native people became Christians.

Unit 11 Books and printing

Background knowledge for the unit

This unit presents a review of the development of writing on various materials using different tools. There is a review of the invention and use of paper and other sheet materials, such as papyrus, parchment, and vellum, also of the making of different types of books.

The unit explores how paper-making spread from China in the second century, through the Islamic world in the 9th to 13th centuries, and to Europe at the same time as print-making spread around the world from the simple clay seals and blocks of early civilizations, to wooden letter or character blocks, and to movable type in Germany.

The unit also explores how the development of printing in the 15th century Europe helped to spread learning and news.

If the students have studied about the 'Indus Valley' (Grade 3 Unit 7) they will recognize the carved, stone 'seals' that archaeologists found there. These might have been used for making impressions in a soft material, such as clay, but that was a type of printing as it made many copies of the same picture or writing. The people of Mesopotamia 'printed' using carved stone in a similar way from about 3,500 BCE.

The use of wood for making printing blocks spread across Asia in the 3rd century BCE and became highly developed in China, where they also began to make paper and ink and printed books in the 9th century CE. In this century too, Bi Sheng made separate letters from clay and baked them then fixed them into a metal frame using wax. This allowed him to reuse the letters on other pages. This was a slow process as each page was made separately. But it was quicker than writing as the page could be used over and over again.

Making separate letters and fixing them on to a frame for printing speeded things up because the letters could be re-used to make different words. The Korean official Choe Yun-ui managed this in the 13th century, using metal letters, instead of wood. Unlike clay, metal did not wear away when reused continuously. However his idea was not developed commercially. It had to wait until the 15th century when printing became a major industry in Europe.

By the 15th century European craftspeople had better tools and could use them for making equipment that was more accurate than before. They became very skillful in making letters for printing presses. At the same time the paper-making industry grew.

Expected learning outcomes for the unit

When they have completed this unit in the Pupil's Book and Skills Book most students should be able to:

- discover that the skills of writing, paper-making, and printing came together in Europe and that the printing press was made there in the 15th century
- determine that printing presses opened across Europe and millions of books were printed consequently causing an increase in reading
- realize that learning spread more quickly through books

They will learn how to:

- use sources such as maps, charts, time lines, paintings, and artefacts to find out about writing, printing, and book-making in the past
- ask questions and draw conclusions about the past

They will begin to understand:

- how printing changed the ways in which learning and news spread
- how crafts and skills spread from one civilization to another.

Lesson 1: The written word

Learning outcomes

Students should be able to:

- describe ancient forms of writing
- relate this learning with what the students know about earlier civilizations

Resources

- Pupil's Book page 93
- Skills Book page 52 Writing from the past

Pupil's Book steps

1. Tell the class that they will study a timeline about writing in ancient times. Tell them that people have been writing for more than five thousand years. Ask:
 - What kinds of writing do you know about from ancient civilizations?
 - What did the people write on? (They should know about the writing of the ancient Indus Valley, Egypt, and Greece.)
2. Ask the students to look at the pictures and read the captions on page 93 and, as they do so, find the answers to these questions:
 - What materials have people written on?
 - What did they write with on these materials?
3. Invite students to give their answers to the questions. Point out that in ancient times, people used whatever materials they could find easily, or make: for example, the papyrus plant grew all along the banks of the River Nile in Egypt and so the ancient Egyptians used it to make a type of paper.
4. Review how a timeline should be read. Also remind them of the meaning of century—a hundred years and that the first century CE (Common Era) means the hundred years up to the year 100 CE, the second century means the hundred years up to 200 CE). Also review the fact that the centuries BCE (Before the Common Era) are counted in the opposite way: the first century BCE means the hundred years before the first century CE. At that time people did not use those numbers for the years.
5. Explain that the time line on page 93 starts at 3500 BCE and is marked in sections of 250 years. It ends at 1000 CE. Ask them to use the timeline to find (roughly) when each type of writing was used.
6. The students can now complete the exercise in their notebooks.

Skills Book steps

1. Ask the class to compare each picture to those on page 93 of the Pupil's Book and to say where each piece of writing came from, and (roughly) when and what it is written on. Ask their opinion about what they think the people used to write with: tools to carve stone or to draw on soft clay; a brush or pen with ink.
2. They can then complete sections A and B.

necessary. Tell them that when people go to libraries to read old books they can't take them away. The book has to be placed on a table on a special wedge-shaped block (usually made of sponge/foam) and, to keep the book open at the right page they have to put a weighted chain (called a 'snake') on it in order not to break the spine of the book. The owner of the book can tell the class a little about it.

2. If the students are allowed to touch the book they should first wash their hands and dry them carefully. Ask:
 - What makes this book special?
 - What is the cover made from?
 - What are the pages made from?
 - What do you know about these materials?
 - What was the book written with?
3. Read the text on 'Books' from page 94 of the Pupil's Book with the class and ask,
 - What is parchment made from? (calf, sheep, or goat skin)
 - How is vellum like parchment?
 - How is it different? (It is made from the same skins but it is of a finer quality.)
 - What do we call people whose job is to copy books by hand? (Scribes. You could remind the students about the scribes of Ancient Egypt that they learned about in Book 3.)
 - What did scribes write with? (a quill pen dipped in ink)
4. If possible, show the class some ink and quill pens. Explain that the scribes dipped the pen in ink which will flow up the hollow part of the quill. See **Further activities** and tell the students that they will be able to try this. Also point out that some special books are still copied by hand by scribes using a pen or quill, and ink: for example, special copies of the Holy Qur'an and some Jewish holy books.
5. Read 'It's a Fact' with the class and ask,
 - Which people invented paper? (the Chinese)
 - How did this skill spread to Europe? (It came to the Islamic world in the 8th century and then to the Islamic part of Spain in the eleventh century.)
6. Ask the class to look at the photographs and read the captions. Discuss what they have found out from these.
7. It might seem strange to the students that a liquid—ink—should run **up** a hollow feather, because liquids usually run downwards! Try the experiments and investigations in **Further activities** so that they can verify this.

Answers to Pupil's Book page 94

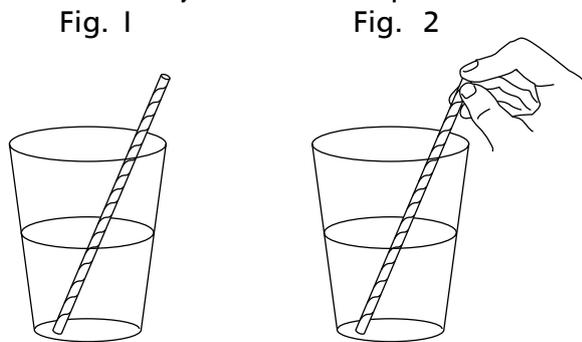
- A.
1. Their job was to copy books
 2. Expensive book covers were made from ____.
 3. A pen made from a feather
 4. A cloth used for making paper
 5. Animal skin for writing on

				S	C	R	I	B	E	S		
L	E	A	T	H	E	R						
			Q	U	I	L	L					
L	I	N	E	N								
				P	A	R	C	H	M	E	N	T

- B. No, because they were handwritten and this took a long time.

Further activities

1. Show the students how liquids can run up tubes:



Explain that this is how cloth and tissues soak up water. The water runs into very tiny holes between the threads of the cloth or tissue.

2. Dip a quill pen into ink and let the students see how the ink runs up the narrow hollow part of the feather just as the water ran up the drinking straw. Let them try writing with it. If you have one, they could also try writing with an old-fashioned pen with a wooden handle and metal nib:



Lesson 3: Early printing

Learning outcomes

Students should be able to:

- use pictures to find out how people began to print
- explain how people used the materials and technology of the time to solve problems

Resources

- Pupil's Book page 95

Pupil's Book steps

1. Ask the students what they know about ancient types of printing. Remind them about the people of the Indus Valley, who carved seals for stamping pictures and writing. Read the first four paragraphs of page 95 with them. Ask:
 - How do pictures and writing have to be made on printing blocks so that they look correct when printed? (back-to-front so that the pictures print the right way around)
 - When did the Chinese start printing books using blocks for whole pages? (the 9th century)
 - What did they print on in Europe before paper was made? (cloth)
2. Help the class to read 'It's a Fact'. Ask:
 - What did Bi Sheng do that was different and made printing quicker? (He made separate letters from clay that could be used for printing different words on different pages—he didn't have to make a new block for each page.)
3. Let the students study the pictures and read the captions. Ask:
 - What do you learn from these pictures? (The people of Mesopotamia carved pictures on stone and then pressed the stone into soft clay to make copies of the picture. Europeans made woodblock books. They made a new block for each page.)
4. Remind the class that each page had to be set up separately.
5. The students can now complete the exercise in their notebooks.

Answers to Pupil's Book page 95

- A
1. True
 2. True
 3. False. They were printed in China.
 4. False. Bi Sheng was a man in China who made letters for printing.
 5. True
- B. He didn't have to make whole new pages. Once he had all the letters he needed he could use them again and again.

Further activities

1. Try some printing.
2. The students could cut shapes and letters in flat blocks of clay.
3. Dip them in a tray of water-based paint.
4. Print this on paper or plain cloth.

Lesson 4: A new type of printing

Learning outcomes

Students should be able to:

- describe the development of printing using movable, metal letters
- use the timeline to find out about the past

Resources

- Pupil's Book page 96
- Skills Book page 53 How printing developed; page 54 The printing press

Pupil's Book steps

1. Tell the class that they are going to find out how printing quickly became an industry across Europe and how the early printing presses worked.
2. Explain that they will begin by reading about the first metal letters that were made for printing and how the printer fixed them so that they would stay in place while printing many copies of a page. Read the first paragraph of page 96 with the students Ask:
 - In which country were metal printing letters first used? (Korea—then called Goryeo.)
 - Why didn't the invention spread across Korea and the rest of Asia? (printing was only allowed for government books)
3. Read the next two paragraphs with the class. Ask:
 - What do we call a machine for printing? (a printing press)
 - How did the printer fix the letters in place for printing? (He put them in a metal tray that held them in place.)
 - How did the printing press work? (A printer spread ink on the tray of letters and put it into the press, which held it in place while others rolled a sheet of paper under it. Then the printers pulled the tray down and pressed it onto the paper.)
4. Read 'It's a Fact' with the class and ask them to look at the pictures and read the captions. Invite volunteers to talk about what they have learned.
5. The students can now complete the exercise in their notebooks.

Skills Book steps (Page 53 How printing developed)

1. Remind the class how to complete a crossword puzzle using the 'Across' and 'Down' clues, and why some numbers might only be in the 'Across' or only in the 'Down' clues. For example, there is no '1 Across' clue. Remind them to write one letter in each square.
2. Tell the students to read pages 95 and 96 of the Pupil's Book to find the answers.

Skills Book steps (Page 54 The Printing press)

1. Tell the students that this page will help them to understand how a printing press worked. Ask if they can guess why it was called a 'press' (because it pressed the inked letters on to the paper.)
2. Read the explanation with them, beginning with the letter-caster, whose job is to cut the moulds for making metal letter blocks. Explain that a mould is a shape that is used over and over again for making copies of the same object, such as a letter block, so that every copy is the same (like when coins are made). Then read about the type-setter, then the printer inking the frame. Next read how the printer puts the frame and paper in the press, the printer taking out the printed page and putting in the next sheet of paper. Ask:
 - How does the printer ink the letters? (He rolls an ink ball in a tray of ink. The ink ball is a leather bag stuffed with horse hair.)
 - What did they call the metal frame that held the letters? (a galley)
3. The students could work in pairs to help one another to complete the exercise.

Answers to Pupil's Book page 96

A.

Printer	Nationality	Century	What he invented
Choe Yun-ui	Korean	13 th	metal letters for using over and over again for printing
Gutenberg	German	15 th	the printing press

- B. Gutenberg was in Europe at a time of invention, discovery, and learning, when scholars wanted books. Choe Yun-ui was in Korea, where printing was only allowed for government books.

Answers to Skills Book page 53

Across: 2. Bible 4. Gutenberg 6. Wood block 8. Korea
Down: 1. cloth 3. tray 5. block book 6. wax 7. clay

Answers to Skills Book page 54

1. First the letter-caster should make all the **letters** of the alphabet from metal. To get every copy of each letter the same, use a **mould**.
2. Next the typesetter should make up all the words on the **page** using the metal **letters**. He should fix them onto the **galley** (a metal frame).
3. Put four pages onto the galley.
4. To ink the letters you will need an **ink ball**. This is a **leather bag** stuffed with **horse hair**.
5. Roll the **ink ball** in **ink** and spread it on the galley.
6. Put the galley under the **press**, slide in a sheet of **paper** and turn the **screw**.

Further activities

1. Find out how printing has developed since the 15th century.
2. The same methods were used until the 20th century, although machines with rollers fed in the sheets of paper. The changes came with computers and digital printing. Perhaps you could invite a printer who has been in the business for a long time to come and talk to the class about the changes he or she has seen in the industry—and about the words in printing that stayed in use for hundreds of years: for example, 'galley' for a printed sheet of four pages.
3. The printer could show the students any equipment that is small and safe enough to bring into school.

Lesson 5: European printing presses

Learning outcomes

Students should be able to:

- describe the spread of printing across Europe and the world
- identify some of the changes that came from printing
- interpret symbols on a map to find out about the past

Resources

- Pupil's Book page 97–98
- Skills Book page 55 Values
- A map of Europe with the countries marked

Pupil's Book steps

1. Tell the class that they are going to find out about what happened after Gutenberg invented the printing press. Ask:
 - What did Gutenberg do that was different from earlier printers? (He made metal letters that could be used over and over again and a press that could print four pages at a time on large sheets of paper.)
2. Write the following questions on the board and ask the students to see if they can find the answers to them as they read page 97
 - i) In which countries did printing spread the fastest? (Germany and Italy)
 - ii) How did printing change things for scholars? (They could read the writings of ancient scholars which were translated into their own languages and printed.)
 - iii) How did printing change things for people who were not scholars? (More and more of them had books and began to read.)
3. Read page 97 with the class and then ask them what answers they found to the questions above.
4. Let the students study the map on page 97 and read the heading. Ask:
 - What can you find out from this map? (Printing spread all over Europe in the 15th century.)
5. Ask them to read page 96 again, including the captions for the pictures. Ask:
 - How many years did it take for printing to spread from Gutenberg's invention to printing presses all over Europe? (55 years—from 1445 to 1500). Remind the students that the 15th century ended in 1499 and the 16th century began in 1500.
6. Read 'It's a Fact' on page 98 with the class and ask:
 - How long after Gutenberg set up his press was the first newspaper printed? (150 years; so it took a long time for people to begin printing newspapers.)

7. Discuss why this was so: perhaps at first printing was too expensive for something that people would eventually throw away, but fine for books that they would keep. You could also add that newspapers are now known as 'the press'—from the printing press. Ask:
 - Where was the first newspaper printed? (Germany)
 - What was it called? (The Relation)
8. Help the students to match the map on page 97 to a map of Europe that has the names of the countries marked on it and to identify the countries with printing presses: England, Portugal, Spain (including its islands), France, Corsica, Germany, Italy, Austria—and a few in parts of Eastern Europe that have since changed their names and borders.
9. Give the students about five minutes to discuss the questions in the exercise, with a partner. Then invite volunteers to give the answers. The others could comment on these, afterwards.

Skills Book steps

1. Tell the class that they will compare the printing industry in 1445 with the ones in 1500 and write the information in a table.
2. Ask the students to look at a map of Europe and the map on page 97 of the Pupil's Book to help them complete the first line of the table.
3. Help them read the information in the left-hand column of the table and show them where to look for the answers on pages 95 to 98 of the Pupil's Book.
4. They should discuss section B with a partner and read the unit in Pupil's Book again to get information to help them answer this.

Answers to Pupil's Book page 98

1. They could read the writings of ancient scholars had been translated into their own languages and printed.
2. More and more of them could read.

Answers to Skills Book page 55

In the year 1455	In the year 1500
There was one printing press in Europe—in Mainz, Germany	There were printing presses in England, Portugal, Spain (including the islands), France, Corsica, Germany, Italy, Austria, and parts of Eastern Europe.
Gutenberg printed about 180 copies of the Christian Bible.	The printing presses of Europe had printed more than twenty million copies of books.
Most ordinary people could not read.	Ordinary people began to read.
Only rich people had books.	More people began to buy books but they were still too expensive for poor people.
People in Western Europe did not know Ancient Greek stories, plays and poems.	Scholars from Western Europe began to translate these and have them printed.
Learning and new ideas spread quite slowly.	Learning and new ideas started to spread more quickly.

2. Some religious leaders wanted holy books, such as the Qur'an to be written by hand by a scribe.

The students give their own ideas about why this was so. Perhaps the religious leaders thought writing the books carefully by hand showed respect for them or showed that they were special. Copies of some religious books are still handwritten today, although there are also printed copies.

Further activities

1. The students could find out where the printing industry is important today.
2. You could find out from the internet which countries and towns are important for printing and book publishing: for example, two of Europe's main book fairs are held at Bologna in Italy and Frankfurt in Germany—Italy and Germany are still very important in the printing and book publishing industry.
3. The students should attempt the CD activity.

Note: In 2011 the leading print markets were: 1. USA, 2. Japan, 3. China, 4. Germany, 5. UK, 6. France, 7. Italy, 8. Canada, 9. Spain, 10. Brazil, 11. Mexico, 12. India. The fastest-growing between 2006 and 2011 were: 1. India, 2. Russia, 3. China, 4. Malaysia, 5. Indonesia, 6. Turkey, 7. Brazil, 8. Poland. (Figures from NPES—National Printing Equipment Association, now known as the Association for Suppliers of Printing, Publishing and Converting Technologies.)

Answers to Pupil's Book page 99

- A.
1. Paper-making spread from **China** to the Islamic world and then to **Europe**.
 2. Before that, books were written on parchment and vellum, which are made from **animal skin**.
 3. To make copies of books, scribes wrote by hand with a **quill pen**.
 4. To print a woodblock book they carved each **page** on a block of **wood**.
- B. The students use the information in the unit to complete the letter, for example:

Look at these metal letters. They are made back to front so that **they will be the right way around when they are printed**. You can use them to make up **words and pages**. This metal tray **holds the letters in place and can hold four pages**.

Now look at my printing press. It will take only a **very short time** to make a whole page of a book on the metal tray. We put the tray **in the printing press** then we can print **the pages**. This is much quicker than **writing by hand**.

We could print thousands of **books**. There are **scholars/people** all over Europe who will buy them. They will buy them because they will be much cheaper than **handwritten** books that take years to copy.

Think about it. We could become **rich** and we could help **many people**.

Unit 12 Rights and responsibilities

Background knowledge for the unit

This unit helps the students to develop awareness about what people need, and what they want but do not need. Different people have different opinions but the focus is on the international agreement on human rights detailed in the Declaration of Human Rights which was agreed upon by most countries in 1948, at a meeting of the United Nations Organization. It begins as follows: Article 1. All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood. You can read it in detail on the United Nations website www.un.org or in their leaflets.

In 1989 most countries also agreed to a special list of rights, known as The Rights of the Child. You can find out more about this on the website of UNICEF www.unicef.org (United Nations Children's Fund). This is how UNICEF describes the Declaration: A legally binding instrument. The Convention on the Rights of the Child is the first, legally binding, international instrument to incorporate the full range of human rights—civil, cultural, economic, political, and social. In 1989, world leaders decided that students needed a special convention just for them because those under 18 years of age often need special care and protection that adults do not. The leaders also wanted to make sure that the world recognized that children have human rights too.

Expected learning outcomes for the unit

When they have completed this unit in the Pupil's Book and Skills Book most students should be able to:

- establish that there are internationally-agreed laws about the rights all people have and that children have special rights too
- identify the Declaration of Human Rights (1948) and the Convention on the Rights of the Child (1989)
- comprehend details of some human rights and children's rights

They will learn how to:

- use written sources and photographs to find out about human rights and children's rights
- ask questions and draw conclusions about what is meant by 'right', 'responsibility', 'need', and 'want'

They will begin to understand:

- the meanings of 'right', 'responsibility', 'need', and 'want'
- how everyone can help others to avail their human rights
- the responsibilities that come with rights

Lesson 1: What do we need?

Learning outcomes

Students should be able to:

- distinguish between needs and wants
- establish how we decide what we need

Resources

- Pupil's Book pages 100–101
- Skills Book page 56 Needs and wants; page 59 What is important?

Pupil's Book steps

1. Tell the class that they are going to read a story and that while reading, they should think about these questions:
 - What do people really need and what do they want but can live without?
 - What is the difference between needs and wants?
2. Let a few students read parts of the story on page 100 of the Pupil's Book, aloud. Ask:
 - What do different members of the family say they need? (a briefcase, a cup of tea, flour, vegetables, oil, fruit, fish, fresh air, shalwar qameez, carpet, computer game, new clothes, cricket pads, pen) List these on the board and then ask:
 - Who says he or she needs this?
 - Does he/she really need it or just want it?
3. Tick the items the students feel they really need and, for each one, ask:
 - Why do they need this?
 - Could they manage without it?
 - What is the difference between needing and wanting?
4. Point out that different people have different ideas about what we need and that we actually need things that keep us alive and well: food, water, shelter, a place to sleep, warmth, a way of earning money to pay for these, a safe environment, medical help when needed.
5. Talk about what we need in order to be happy: for example, a family, being with the people we love, and for many people, freedom to practise religion, to marry and have children if they wish to.
6. The students can now complete the exercise on page 101 in their notebooks.

Skills Book steps (Page 56 Needs and wants)

1. Ask the class to look at the pictures, read the captions in section 1, and decide which of these things they really need and which are just 'nice' to have.
2. After they have completed the charts invite volunteers to read out the list of things they think they need. The others can then comment. If anything on their lists are different ask them to explain why they have included these items.
3. The students should then decide which three of the items they listed as needs are the most important.
4. They can then compare their answers with those of a friend.
5. The class could vote for the three items they think are the most important.

Skills Book (Page 59 What is important?)

1. Divide the students into groups of about four and ask them to discuss the gifts for the baby. Ask each group to agree on the most important gift. They will need to justify their choice to the rest of the group and try to persuade them.
2. The students can then complete section A as a group. They could collect ideas from the group and choose the best five gifts and the best five wishes for the baby.
3. Invite each group to read their lists to the rest of the class. Note and discuss any common observations made by the groups.
4. The students can complete section B individually.

Answers to Pupil's Book page 101

1. There are no absolutely right or wrong answers, except that everyone needs air, water, and food. They need clothes but not lots of them. These are guidelines. It is useful to discuss the reasons for listing each item as a need or a want. Possible answers:

Name	Needs	Wants
Grandfather	fresh air	
Grandmother	a cup of tea, flour, vegetables, oil, fruit, fish	a cup of tea
Mr Iqbal		briefcase
Mrs Iqbal		shalwar qameez, carpet
Yusuf	trainers, clothes	computer game, cricket pads
Fawzia	clothes, pen	pen

Some items could be placed in either column: for example, the students might argue that Yusuf can live without trainers if he has other shoes, but if he is to join in sports at school, then he needs them; Fawzia can live without a pen but she will need it for her school work, Grandmother says she needs a cup of tea but she could manage with water; the students need clothes but they already have some that they are wearing. Discuss how much clothing is really needed.

- B. The answers are open-ended.

Answers to Skills Book page 56

- A. Apart from basic needs the answers are open to discussion. These are guidelines:

I need these	These are nice to have
water	computer
shoes	pen
food	toys
a home	watch
	phone
	sweets

2. The answers are open-ended.

Answers to Skills Book page 59

There are no correct or incorrect answers. If the students think mainly of material or worldly gifts, ask if they think these are more important than wishes: such as good health.

Further activities

1. Hold a class debate about whether we need a computer, a pen, a watch, a phone, or any item that many people have and would find life difficult without.
2. Invite one or two students to speak about why we need this item: for example, because they live in a modern city where many things they do are difficult without it. Ask a couple of students to speak about why we do not need it: for example by talking about the people who live very well without it.

Lesson 2: Human needs and rights

Learning outcomes

Students should be able to:

- explain what is meant by human rights
- identify events or situations that take away the things people need and have a right to

Resources

- Pupil's Book pages 101–102

Pupil's Book Steps

1. Ask the students what they learned in the last lesson about the things we need. Tell them that most people agree that we all have a right to certain things we need and that these are called human rights.
2. Read Human needs and rights on page 101 and ask the students to study the pictures and read the captions. Focus on the first picture and ask:
 - What is happening in the picture?
 - What are these people losing that they need? Repeat this for each picture.
3. Read the top section of page 102 with the class and ask them to look at the pictures on page 101 again. They could then match the needs they have read about which the people are losing in the pictures. Ask:
 - What can other people do so that these people have what they need again?
4. Read 'It's a Fact' with the class and ask:
 - Can you explain why these people might be suffering and do not have what they need?
5. Ask the class to complete exercise A in their notebooks. They can then discuss Exercise B with a friend. Help them to choose a group of people who do not have the things they need and to suggest what they could do to help (see **Further activities**).

Answers to Pupil's Book page 102

- A. These answers are guidelines. Other answers are acceptable if the students give good reasons.

Picture	What help do the people need now?	What help might they need later?
a	shelter, food, water	clothes, a home, work
b	shelter, food	work
c	water, food	money to buy what they need
d	shelter, food, water	a home, work, clothes

- B. The answers are open-ended.

Further activities

1. Plan a class project to help a group of people who are in need.
2. This could involve fund-raising for a disaster-relief charity.
3. Motivate the students to think of practical ways of raising funds at school: for example, making or collecting goods to sell; a school fair, etc.

Lesson 3: Rights for all

Learning outcomes

Students should be able to:

- briefly explain the origin and contents of the Declaration of Human Rights
- explain how the Declaration of Human Rights is upheld in Pakistan
- identify and define any difficulties people might face in gaining their human rights

Resources

- Pupil's Book pages 102–103

Pupil's Book steps

1. Discuss whether the students have heard of the Declaration of Human Rights, if so, what they know about it. Tell them that they will be reading about it and will learn about some of the rights that all people have.
2. Read Rights for all from page 102. Ask:
 - When did experts meet to list the rights and freedoms everyone needs? (1948)
 - Did many countries agree with this list? (Yes—most countries of the world agreed.)
 - Which organization is responsible for human rights in Pakistan? (Pakistan Commission of Human Rights)
3. Ask the class to read the list of human rights given on page 103. Tell them that this is not a complete list. Ask:
 - Do you think everyone gets the benefit of these rights equally?
 - Discuss why or why not.
 - Why are some people not able to use these rights?
4. The students can now complete the exercise in their notebooks.

Answers to Pupil's Book page 103

- A. Individual answers. They should give reasons.
- B. Individual answers. Encourage them to explain their answers.

Further activities

1. Hold a class discussion about the rights that are listed on page 103.
2. The students could consult news reports for examples of people who are denied these rights, and why.

Lesson 4: Children's rights

Learning outcomes

Students should be able to:

- explain how children's needs are different from those of adults and why they have special rights
- briefly describe the UNICEF Convention on the Rights of the Child

Resources

- Pupil's Book pages 104–05
- Skills Book page 57 Children's rights

Pupil's Book steps

1. Review what the class has learned about human rights. You could do this by asking what they remember from the last lesson. Ask them if they think children should have different rights from adults. Ask:
 - Which rights should they have that are the same as adults?
2. Inform them that more than forty years after the Declaration of Human Rights was agreed upon by most countries of the world, experts met to list the special rights children should have.
3. Read page 104 with the students and ask:
 - Up to what age are you considered to be a child?
 - What do you think about this?
 - Why do you think children have been given special rights?
4. Invite volunteers to read out one of the rights and to say what responsibility goes with that right. Continue until all the rights have been read.
 - What have you learnt from this page?
5. The students can now complete the exercise in their notebooks.

Skills Book steps

1. Read the instructions and the first example with the class, read the next speech bubble. Ask:
 - What responsibility comes with this right?
 - If you have a right to live in a clean area what should you do in exchange?
2. Repeat this for the next speech bubble.
3. Read the passage in section 2 with the class or invite volunteers to take turns to read a sentence aloud. Ask:
 - What right is this about? (the right to education)
 - What responsibility does Dan have because he has this right? (to work hard at school)
 - Is he doing that?
 - What advice would you give him?
4. The students can then complete the page.

Answers to Pupil's Book page 105

- A. 1. 1989 2. 17 years 3. 300 million 4. 125 million
5. They poison the air, water, and land.
- B. The students give their own answers, with reasons.

Answers to Skills Book page 57

1. We should keep our home and neighbourhood clean. We should behave sensibly.
2. The students' own answers. They should understand what right Dan has but does not match with the responsibility. They should be able to suggest some ways in which he can be responsible.

Further activities

1. Find out more about the work of UNICEF and children's rights from www.unicef.org/pakistan
2. The students could discuss an issue or story from the website and say what they think is right and wrong in the situation.
3. Discuss what they think should be done about it.

Lesson 5: The right to education

Learning outcomes

Students should be able to:

- give an opinion on children's right to education
- explain why some children do not go to school

Resources

- Pupil's Book pages 105–106
- Skills Book page 58 The right to education

Pupil's Book steps

1. Tell the class that they will discuss 'Children's right to education'. Point out that they are all benefitting from this right because they come to school but unfortunately some children do not go to school. Ask
 - Why do you think some children don't go to school?
 - Is this fair?
 - Why do you think so?
2. Ask them to read the news reports at the bottom of page 105. Ask:
 - Why doesn't Sajid go to school? (He sells chips to earn money to help his family. He wouldn't have much time for this if he went to school.)
 - Is this fair?
 - Why/Why not?
 - If not, what do you think should be done about this?
 - Why doesn't Kavita go to school? (She looks after her baby sister while her parents go to work. If she went to school her mother or father would have to look after the baby and then they would not have enough money to live on.)
 - Is this fair?
 - Why/Why not?
 - If not, what do you think should be done about this?
3. Ask the students to read 'It's a Fact' on page 106. Read each fact in turn with them again and ask:
 - Why do you think this is so? (They could give their opinions about each fact, if you think this is appropriate.)

Skills Book steps

1. Read the introduction and instructions with the class. Point out that the graph shows education in Pakistan in 2008.
2. Invite volunteers to say what they can find out from the graph: e.g. More children start Grade 1 than Grade 5; more children go to primary school than to secondary school; at all ages more boys than girls go to school; more children start primary school than complete it, so many drop out before finishing their primary education. Ask the students to suggest reasons for these facts. Ask:
 - Do you think that things have changed since 2008?

Check-up Tests

Instructions

1. Photocopy the Check-up test for Units 1 and 2—one for each child.
2. Explain that this test will help you to find out how much the students have understood. It is **important** that you stress the fact that it does not matter if they get some answers wrong.
3. The students should put the Pupil's and Skills Books in their bags so that they do not refer to them while solving the test.
4. Distribute a copy of the test to each student. They will need a pencil and coloured pencils. Ensure that their names are written at the top of the sheet. Read the instructions aloud for each stage so that the students know what to do.
5. Ask them to attempt the test on their own and without helping each other. You may help them to read the words, but do not give the answers.
6. Do not pressurize them to finish within a set time limit. Let those who finish early draw a picture of their choice on the back (which you will not mark).
7. When the students have finished, take up their work and mark it out of ten.
8. Photocopy the record sheet. If there are more than thirty in the class, make 2 copies.
9. Record the students' marks so that you can see which ones are facing difficulties, and take steps to help them.
10. **PLEASE DO NOT TELL THE STUDENTS THEIR MARKS.** At this stage of their lives, they do not need to know as a low score will serve to demotivate them.
11. If you wish, you may share the marks with parents at the Parent(s)/Teacher meetings, but stress the fact that students who are slow in reading may not be able to document their understanding in the test; at this level, the situations changes rapidly.

Note:

It is important to review these instructions before every Check-up Test.

Check-up Test 1

Grade 4, Units 1 and 2

Name: _____

Tick the box

1. Lahore is the capital of which province?

- a) Sindh
- b) Punjab
- c) Balochistan
- d) Khyber Pakhtunkhwa

2. Tick the two boxes with the names of 2 of the 5 rivers of Punjab.

- a) Ravi
- b) Hingol
- c) Indus
- d) Dasht

3. Here is a temperature chart for Lahore. It shows the average temperatures (day) for each month in °C.

J	F	M	A	M	J	J	A	S	O	N	D
20	21	27	34	39	40	36	35	35	33	27	22

Which months have the highest temperatures?

- a) January and February
- b) June and July
- c) May and June
- d) November and December

4. Lahore has a lot of smog. What is smog?

- a) smoke
- b) smelly rubbish
- c) smoke and fumes
- d) smoke and fog

5. Punjab has two deserts. The Cholistan Desert is one of them. Name the other.

- a) Thal Desert
- b) Gobi Desert
- c) Thar Desert
- d) Kharan Desert

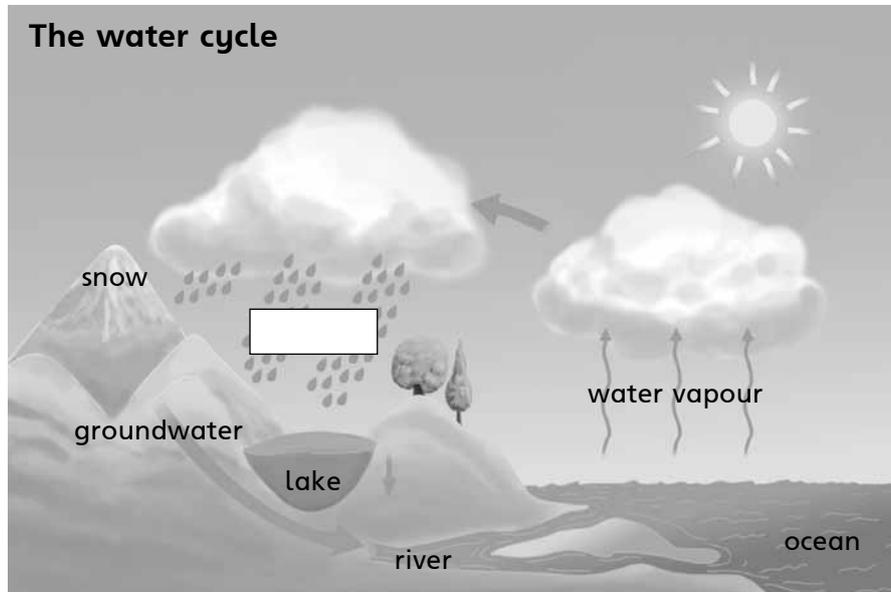
6. Complete the following:

There are five oceans in the world. They are the Arctic Ocean, Pacific Ocean, Southern Ocean, Atlantic Ocean, and the _____ Ocean.

7. The longest river in Pakistan is:

- a) Chenab
- b) Indus
- c) Jhelum
- d) Ravi

8. This is a diagram of the water cycle. Fill in the empty label with the missing word.



9. What is a dam?

- a) a lake
- b) a river that ends in the sea
- c) a large area of water
- d) a thick wall built across a river or lake to hold the water back

10. What is flooding?

- a) when water overflows from a river onto the land around it
- b) when it rains a lot
- c) summer time
- d) when the water level of a river falls

Marks out of 10: _____

Check-up Test 2

Grade 4, Units 3 and 4

Name: _____

Tick the box for the correct answer.

1. In which country will you find Sydney?

- a) Pakistan
- b) China
- c) Australia
- d) India

2. In which province of Pakistan will you find Sialkot?

- a) Sindh
- b) Punjab
- c) Balochistan
- d) Khyber Pakhtunkhwa

3. Tick two boxes to name 2 important buildings in Sialkot.

- a) Jamia Masjid
- b) Sydney Opera House
- c) Queen Victoria building
- d) Clock Tower

4. What is a skyscraper?

- a) a very tall building
- b) a large area of the sky
- c) a kind of tool for cleaning buildings
- d) a very short building

5. Which sport do the people of Sialkot and Sydney like?

- a) water skiing
- b) beach volleyball
- c) cricket
- d) snow skiing

6. It is important to have plants and parks in our cities. Tick ALL the boxes that are true.

- a) Plants breathe out oxygen which is needed by people to breathe in.
- b) Plants cause pollution.
- c) Parks are places for people to play and relax.
- d) Parks make people feel poorly.

7. Look at this list of vehicles:

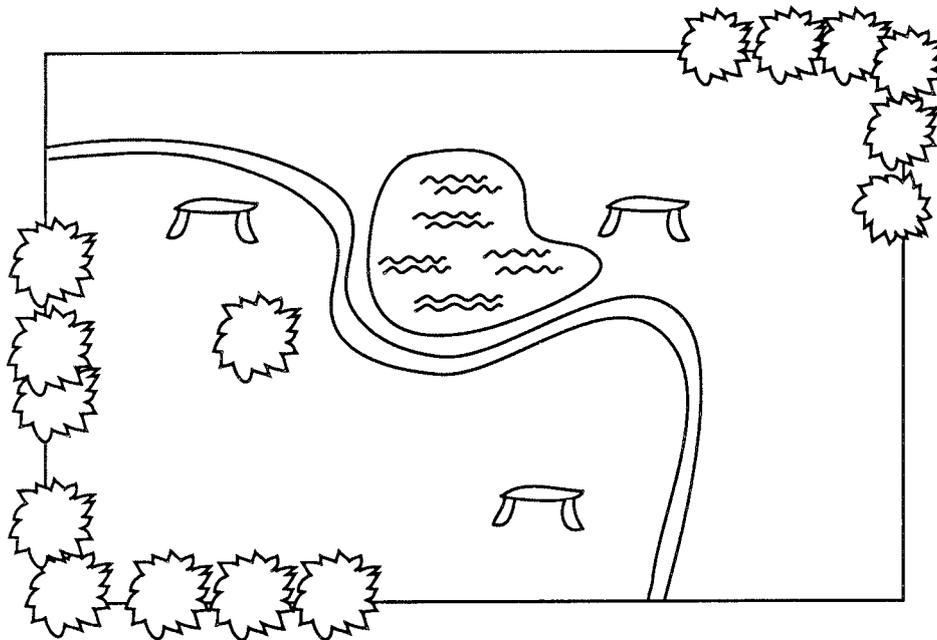
motorbike, scooter, car, bus, truck, auto rickshaw, bicycle, *reyri*

Which vehicle do you think causes the LEAST pollution in our cities and towns?

8. What is a neighbourhood?

- a) the sound a horse makes
- b) another name for a city
- c) the people who live next door
- d) the area in which you live

9. Look at this plan of a park.



Draw the symbol used for a seat.



10. Name TWO things we can all do to keep our neighbourhoods clean. Tick TWO boxes.

- a) Do not drop litter anywhere.
- b) Walk or use bicycles more than cars.
- c) Throw our household waste into rivers.
- d) Throw drink cans into flower beds in our parks.

Marks out of 10: _____

Check-up Test 3

Grade 4, Units 5 and 6

Name: _____

1. The four closest neighbours to Pakistan are
a) Australia, New Zealand, Japan, and Taiwan
b) India, Iran, Afghanistan, and China
c) Mongolia, Russia, Kyrgyzstan, and Turkmenistan
d) Bhutan, Bangladesh, Thailand, and Laos
2. India is
a) smaller than Pakistan.
b) twice as large as Pakistan.
c) about four times larger than Pakistan.
d) the same size as Pakistan.
3. India is the only country in the world that has both lions and tigers.
a) true
b) false
4. What is the capital of China?
a) Shanghai
b) Chongqing
c) China doesn't have a capital city.
d) Beijing
5. China has more people than any other country in the world.
a) false
b) true
6. What is the vapital city of Afghanistan?
a) Kandahar
b) Kabul
c) Ghazni
d) Herat
7. Tehran is the vapital city of Iran.
a) false
b) true
8. Complete.
Pakistan is a democracy. This means that people can _____ to choose who they want to rule their country.
9. In Pakistan, the person who is the head of the government is called:
a) the King
b) the President
c) the Prime Minister
d) the Head
10. Laws are rules that everyone has to follow.
a) true
b) false

Marks out of 10: _____

Check-up Test 4

Grade 4, Units 7 and 8

Name: _____

A. Draw lines to match the places to the descriptions.

1. Farghana
Samarkand
Panipat
Kabul

- Babur was buried there in his garden.
the capital city of Timur, Babur's ancestor
the birthplace of Babur
Babur won a famous battle there in 1526.

2–6. Write the names of the emperors:

- the second Mughal Emperor _____
the third Mughal Emperor _____
the fourth Mughal Emperor _____
the fifth Mughal Emperor _____
the sixth Mughal Emperor _____

B. Tick the box for the correct answer.

7. Which city did Babur lose for the second time in the Battle of Saripul?

- a) Samarkand
b) Delhi
c) Agra
d) Kabul

8. Which Mughal Emperor was known for his observatory, and died when he fell down the steps?

- a) Shah Jahan
b) Aurangzeb
c) Humayun
d) Jahangir

9. Which Mughal Emperor had a zoo and paid artists to paint pictures of his animals?

- a) Shah Jahan
b) Aurangzeb
c) Akbar
d) Jahangir

10. Which Mughal Emperor built the Taj Mahal?

- a) Shah Jahan
b) Aurangzeb
c) Babur
c) Humayun

Marks out of 10: _____

Check-up Test 5

Grade 4, Units 9 and 10

Name: _____

A. Tick the box for the correct answer.

- In the 9th century a Muslim ruler paid scholars to translate books into Arabic. The books were kept in the House of Wisdom to help Muslim scholars to learn from the ancient scholars. Who was the ruler?
 - Al-Mamun
 - Al-Khwarizmi
 - Ibn Sina
 - Fatima al-Fihri
- In 1543 this Polish scientist wrote that the planets moved round the Sun, not the Earth.
 - Vesalius
 - Galileo
 - Copernicus
 - Lippershey
- In 1543 Vesalius, from Flanders, in Europe, wrote a book about
 - the stars
 - mathematics
 - telescopes
 - the human body
- Tick two boxes with the names of the scientists who made the telescope in 1608 and 1609?
 - Lippershey
 - Galileo
 - Vesalius
 - Copernicus
- In 1519 this European sailed across the Atlantic Ocean to try to reach Asia from the east.
 - the King of Spain
 - Columbus
 - Drake
 - Magellan

B. (6–7) Match each European country to two places where it started colonies.

Hispaniola

Spain

Goa

Portugal

Brazil

Mexico

(8–10) Write the missing words.

Cortez was a Spanish explorer who sailed to South America. He went to Mexico. The _____ people lived there. Their leader was Moctezuma. His capital city was Tenochtitlan. The city was built in the middle of a _____. The Spaniards built another city on top of it and named it _____.

Marks out of 10: _____

Check-up Test 6

Grade 4, Units 11 and 12

Name: _____

A. Tick the box for the correct answer.

1. The first people to make paper were

- a) the Ancient Egyptians
- b) the Indus Valley people
- c) the Greeks
- d) the Chinese

2. Name the material made from animal skin that was used for making the pages of books.

- a) parchment
- b) papyrus
- c) leather
- d) wood

3. What were quill pens made from?

- a) wood
- b) feathers
- c) bone
- d) plastic

4. Bi-Sheng is the first printer we know about who made separate, metal letters for printing. Where did he live?

- a) China
- b) Spain
- c) Egypt
- d) England

5. Where did the first European to set up a printing press, live?

- a) France
- b) Spain
- c) Germany
- d) England

B. Complete the sentences about rights and responsibilities.

6. I have a right to clean water, so I should _____.

7. I have a right to food so I should not _____.

8. I have a right to practise my religion, so I should _____.

9. I have a right to go to school, so I should _____.

10. I have a right to be safe from harm, so I should not _____.

Marks out of 10: _____

Answers for Check-up Tests

7. Samarkand
8. Humayun
9. Jahangir
10. Shah Jahan

Units 9 and 10

- A.
1. Al-Mamun
 2. Copernicus
 3. the human body
 4. Lippershey, Galileo
 5. Magellan
- B.
- 6–7. Spain: Hispaniola and Mexico; Portugal: Goa and Brazil
- 8–10. Cortez was a Spanish explorer who sailed to South America. He went to Mexico. The **Aztec** people lived there. Their leader was Moctezuma. His capital city was Tenochtitlan. The city was built in the middle of a lake. The Spaniards built another city on top of it and named it **Mexico City**.

Units 11 and 12

- A.
1. the Chinese
 2. parchment
 3. feathers
 4. China
 5. Germany
- B.
6. I have a right to clean water, so I should **look after the water supply**.
7. I have a right to food so I should not **waste food**.
8. I have a right to practise my religion, so I should **respect the religions of others**.
9. I have a right to go to school, so I should **work hard at school**.
10. I have a right to be safe from harm, so I should not **harm others**.

Record of Assessments

Grade _____	Year _____	Teacher: _____	Test 1 Date:	Test 2 Date:	Test 3 Date:	Test 4 Date:	Test 5 Date:	Test 6 Date:
1.								
2.								
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Name of child	Test 1 Date:	Test 2 Date:	Test 3 Date:	Test 4 Date:	Test 5 Date:	Test 6 Date:
16.						
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