INTERNATIONAL GEOGRAPHY

for Class 6

Lesson Planners

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Marshall Cavendish
Education
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### International Lower Secondary Geography
#### Scheme of Work

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</table>
| Chapter 1: Introducing Geography | Students will be able to:  
1. define what Geography is  
2. describe the two types of geographical environments (physical and human environments)  
3. state the importance of studying Geography in terms of knowledge gained and skills acquired | Discussion  
Photo study | Textbook, pp 1–8 | Exploring Earth – Explore the world of earth science through this website which comes with great visuals to aid the understanding of geographical concepts. [view](https://example.com) | Mind-mapping concepts and analysing people-environment relationship Information gathering and elaborating |
| Chapter 2: Our Home: The Earth | Students will be able to:  
1. understand where Earth is in the Solar System  
2. describe the changing position of the sun within a day  
3. explain the rotation of the earth and how it causes day and night  
4. explain the earth’s revolution and how it causes the four seasons  
5. explain why Earth is able to support life  
6. explain with the help of theories how the earth’s continents move  
7. explain how fragile the earth is | Video viewing  
Discussion  
Quiz  
Puzzle | Textbook, pp 9–29 | Learn about where Earth is in the Solar System with the help of interactive activities. [view](https://example.com) | Information gathering and elaborating |
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<tr>
<td>Chapter 3: The Physical and the Human Environments</td>
<td>Students will be able to: 1. explain how the physical environment affects what we do and how our activities affect the physical environment 2. explain the man-land relationship 3. explain how the various factors are changing the man-land relationship 4. describe how the !Kung Bushmen adapt to the physical environment 5. describe how people in Pakistan adapt to the environment 6. compare the adaptation of the !Kung Bushmen and the people of Pakistan</td>
<td>Photo study Discussion Pair work Slide show</td>
<td>Textbook, pp 30-41</td>
<td>Africa, a continent of great diversity, is home to many indigenous people. Learn how they adapt to the physical environment <a href="#">view</a></td>
<td>Analysing man-land relationship Explaining and elaborating</td>
</tr>
<tr>
<td>Chapter 4: The Earth’s Landforms</td>
<td>Students will be able to: 1. identify the different types of landforms 2. describe the different types of landforms</td>
<td>Photo study slide show</td>
<td>Textbook, pp 42-50</td>
<td>This site has great visuals and explanation of the processes that result in the various landforms <a href="#">view</a></td>
<td>Description</td>
</tr>
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</tbody>
</table>
| Chapter 5: Mapping Skills | Students will be able to: 1. define "maps" 2. list three uses of maps 3. identify and describe the various types of maps 4. list the three types of symbols represented on maps (line, point, area and height) 5. measure straight line and curved distances on maps and use the map scale to convert map distance to ground distance 6. find a location using the 4-figure and 6-figure grid references on a topographical map 7. locate a place on a topographical map using cardinal points 8. locate a place using latitudes and longitudes 9. identify the major latitudes and longitudes 10. state the coordinates of a place 11. explain why there are various time zones 12. read and calculate the time of a place with a time zone map 13. describe the geographical features in a photograph in a systematic manner 14. describe the geographical features in an aerial photograph in a systematic manner 15. read a simple satellite image | Discussion  
Pair work (hands-on activity)  
Photo study | Textbook, pp 51-80 | A comprehensive coverage of maps and the map elements can be found at [view](#).  
Get maps of places of the world at [view](#) | Identifying the different types of maps and the uses of maps  
Identifying the types of maps and describing their functions  
Identifying symbols on maps  
Measuring distances on a map  
Locating places on a map  
Identifying relief features on a map using contour patterns |
| Students will be able to:                                                                         | Discussion  | Textbook, pp 81-101 | A site that gives detailed and interesting information about the Earth’s atmosphere view
More about weather and its elements can be found at this site. It covers topics such as temperature, humidity, precipitation and tornadoes view
Visit this site for updated weather information around the world view
Watch a short video on climate change by the National Geographic. It has great visuals, clear narration and explanation of the main causes of greenhouse effect and climate change view
Get an insight into the effects of drought on agriculture and farmland. View this video at the World Bank site. There is also information about water resource issues. view | Explaining and describing
Defining terms used in weather and climate
Analysing cause and effects |
<p>| 1. distinguish between weather and climate                                                                                       | Pair work  |
| 2. describe the earth’s atmosphere and explain why the earth can support life                                                  | Video/slide Demonstration (for example to evaporation and condensation) |
| 3. list the elements of weather                                                                                               | Field trip to the local meteorological station |
| 4. define “temperature”                                                                                                       |
| 5. explain the various factors that affect the temperature of a place                                                         |
| 6. define maximum and minimum temperatures                                                                                     |
| 7. describe the main features of a Stevenson screen                                                                          |
| 8. define “humidity” and “relative humidity”                                                                                  |
| 9. explain relative humidity and saturation of air                                                                             |
| 10. explain the processes of evaporation, condensation and precipitation                                                     |
| 11. identify the major types of clouds and their characteristics                                                              |
| 12. explain how clouds moderate the air temperature                                                                           |
| 13. types of rainfall                                                                                                           |
| 14. define “air pressure”                                                                                                      |
| 15. explain the relationship between air pressure and temperature                                                            |
| 16. explain the relationship between air pressure and weather conditions                                                      |</p>
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<tbody>
<tr>
<td>17.</td>
<td>explain the formation of the three</td>
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<td>18.</td>
<td>explain the factors that affect climate of a</td>
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<tr>
<td>19.</td>
<td>understand how weather forecast is</td>
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<td>20.</td>
<td>made</td>
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<tr>
<td>21.</td>
<td>explain a simple weather forecast</td>
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<td>22.</td>
<td>explain how the burning of fossil fuels has resulted in greenhouse effect and enhanced greenhouse effect</td>
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<tr>
<td>23.</td>
<td>describe the evidence of climate change</td>
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<tr>
<td>24.</td>
<td>define a “drought”</td>
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<tr>
<td>25.</td>
<td>describe the effects of drought</td>
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<tr>
<td>26.</td>
<td>define a “flood”</td>
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<td></td>
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<tr>
<td></td>
<td>describe the effects of flooding</td>
<td></td>
<td></td>
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</tbody>
</table>
| Chapter 7: Major Climate Types of the World | Students will be able to:  
1. describe the distribution of the major climate types  
2. locate the tropical climate type on a world map  
3. describe the temperature characteristics of the tropical climate  
4. locate the temperate climate type on a world map  
5. describe the temperature characteristics of the temperate climate  
6. locate the polar climate type on a world map  
7. describe the temperature characteristics of the Polar climate type | Discussion  
Photo study  
Slide/video Map work | Textbook, pp 102-107 | An in-depth write up of the world’s climate type can be found at this site. Included are maps to show distribution of the climate types [view](#) | Describing and elaborating  
Mapping skills |
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</thead>
</table>
| Chapter 8: Climate and Natural Vegetation | Students will be able to: 1. define an “ecosystem” 2. explain the relationship between rainfall and the natural vegetation 3. explain how factors affect the natural vegetation 4. describe the different types of forest biome 5. locate the distribution of various types of natural vegetation on a world map 6. explain the adaptation of the various types of natural vegetation to the physical environment 7. explain the factors that led to the destruction of the tropical rainforests 8. explain the consequences of the destruction of the tropical rainforests 9. describe the measures taken to reduce the destruction of the tropical rainforests | Discussion  
Pair work  
Map work  
Video  
Photo study | Textbook, pp 108–132 | Learn more about the world’s forest and ecosystem. This site by the WWF covers various topics related to wildlife and forests. [view](link)  
A detailed write up of the world’s biomes can be found at [view](link) | Analyzing  
relationships  
Explaining cause and effect |
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<tbody>
<tr>
<td>Chapter 9: Agriculture</td>
<td>Students will be able to: 1. define “agriculture” 2. define “subsistence” and “commercial” agriculture 3. list the different types of agriculture 4. describe the characteristics of shifting agriculture 5. describe the processes in shifting agriculture 6. locate the distribution of intensive rice cultivation in Pakistan 7. describe the processes in rice growing in Pakistan 8. describe the processes in high technology agriculture in Singapore 9. describe the characteristics of high technology agriculture in Singapore 10. describe the improvements in agriculture</td>
<td>Discussion Map work Video Field trip to a local farm</td>
<td>Textbook, pp 133–145</td>
<td>This country study is a good source of information about agriculture, irrigation and the economic activities of Pakistan. Learn about rice growing in Pakistan Hydroponics is a form of high technology cultivation. This video provides a clear explanation of this method of cultivation.</td>
<td>Defining terms Describing and elaborating</td>
</tr>
</tbody>
</table>
# Introducing Geography

## Learning Objectives:
- define what Geography is
- describe the two types of geographical environments (physical and human environments)
- state the importance of studying Geography in terms of knowledge gained and skills acquired

## Strategies / Suggested Activities

<table>
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<tr>
<th>1.1 What is Geography?</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students in this grade may not be very familiar with the subject of Geography or have a very general idea of what the subject is. Have students write or draw out what they think Geography is on blank pieces of paper. Collect the responses. Broadly place the responses into groups on the board (for e.g., those who say mountains, rivers, volcanoes etc. will be in one group and those who say people from different countries, places etc. will be in another group). Volunteers could be asked to do the grouping. From here, explain the term “geo” and “graphein”.</td>
<td>Textbook pp. 1–8</td>
</tr>
</tbody>
</table>

### Physical Geography

Refer students to the broad classification on the board. Point out the group that has, for e.g. mountains, rivers, weather etc. Ask students if they see any similarities in these responses. Introduce Physical Geography. Teacher may add pictures to show the different components of Physical Geography. For example, under Relief and Drainage, pictures of mountains and rivers may be shown. It is important that the students are able to see that Physical Geography is more than just rivers and volcanoes.

A set of pictures showing the different physical landscape may be prepared for a group of about 5 students to work on. The group is tasked with grouping the pictures and explaining why they group them in a certain way.

### Human Geography

Refer students to the broad classification on the board. Point out the group that has for e.g., people, culture, houses, places etc. Teacher may wish to ask students what similarities they see in all these responses. Summarize by showing pictures of the different components of Human Geography.

### Environmental Geography

Show students pictures of pollution, logging, soil erosion, housing development, road building etc. Ask students what they see and identify what is happening in the picture. Ask them who or what is responsible for what they see in the pictures. Introduce human activities and their effects on the environment. Introduce Environmental Geography.

<table>
<thead>
<tr>
<th>1.2 What Do You Need in the Study of Geography?</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Get students to complete the Activity. Summarize the different components of Geography using a graphic organizer.</td>
<td>Newspaper articles, photos and pictures showing the human environment</td>
</tr>
</tbody>
</table>

| Newspaper articles, photos and pictures showing the effects of humans on the environment |
Our Home: The Earth

Learning Objectives:

- understand where Earth is in the Solar System
- explain why Earth is able to support life
- explain with the help of theories how the Earth’s continents move
- explain how fragile Earth is

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<tr>
<td><strong>2.1 The Universe</strong></td>
<td>Textbook pp. 9–29</td>
</tr>
<tr>
<td>Place/write the following words on the board: Big Bang, Milky Way, universe, solar system, galaxy, sun, planets and Earth. Ask the class what they think will be discussed using the words as clues. Introduce the section on the Universe. Explain where Earth is in the universe. Get students to write their address, starting with Earth and going further out to the Solar System and so on.</td>
<td></td>
</tr>
<tr>
<td><strong>2.2 The Solar System and the Earth</strong></td>
<td>Internet</td>
</tr>
<tr>
<td>The students have attempted writing their address on Earth with respect to the Solar System, the Milky Way etc. so they have a better idea of Earth’s position in the sphere of things. Ask them if they can name the names of the eight planets.</td>
<td></td>
</tr>
<tr>
<td>To introduce them to the Solar System, show this video found at: <a href="http://video.nationalgeographic.com/video/101-videos/solar-system-sci?source=relatedvideo">http://video.nationalgeographic.com/video/101-videos/solar-system-sci?source=relatedvideo</a></td>
<td></td>
</tr>
<tr>
<td>After the video viewing, summarize the section by comparing the planets (distance from the sun and the average temperature on the planet, the relationship between the distance from the sun and the temperature, speed of rotation etc)</td>
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<tr>
<td><strong>2.3 Watching the sky</strong></td>
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<tr>
<td>Ask students where the sun rises and sets. Ask what causes the change in the position of the sun.</td>
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<tr>
<td><strong>2.4 Rotation of the Earth</strong></td>
<td></td>
</tr>
<tr>
<td>• Ask students why is there day and night.</td>
<td>Globe, torch light, coloured stickers, p.19</td>
</tr>
<tr>
<td>• Carry out the activity “Taking turns to see the sun” found in the textbook.</td>
<td>Fig 2.5</td>
</tr>
<tr>
<td>• Explain how day and night occurs. Using Fig 2.5 explain the direction of the earth’s rotation.</td>
<td></td>
</tr>
<tr>
<td><strong>2.5 Revolution of the Earth</strong></td>
<td></td>
</tr>
<tr>
<td>• Show class Fig 2.7. Ask students why seasons occur.</td>
<td>Fig 2.7</td>
</tr>
<tr>
<td>• Explain the earth’s rotation and revolution.</td>
<td>Fig 2.4</td>
</tr>
<tr>
<td>• Explain the tilt of the earth using Fig 2.4. Explain the effects of direct and indirect rays of sunlight on the surface of the earth and hence temperature.</td>
<td></td>
</tr>
<tr>
<td>• Explain the spring and autumnal equinoxes and the winter and summer solstices by using Fig 2.9. Use Fig 2.11 to show that summer and winter solstices occur concurrently but in different hemispheres.</td>
<td>Fig 2.9</td>
</tr>
<tr>
<td></td>
<td>Fig 2.11</td>
</tr>
</tbody>
</table>
2.6 Why is Life Possible on Earth?
Watch the following video as a springboard to further discussion on this topic at

http://channel.nationalgeographic.com/channel/videos/origins-of-the-atmosphere/

This video is about the earth’s atmosphere and how it is different from the other planets.

After the video, working in pairs, students list the factors that make life possible on Earth. They take turns to explain to the class. Teacher summarizes the factors on the board.

2.7 Oceans and Continents
This section would have been covered under “Why is life possible on Earth?” Show students a world map and have them name the oceans and all the continents. Ask questions regarding the Earth’s oceans for e.g. percentage under ocean, percentage of fresh water etc. This can be in the form of a quiz. The class is divided into two teams and they compete with each other to see which team scores the highest.

2.5 More About Continents
Prepare a large puzzle consisting of the pieces of Earth’s continents. Get a volunteer to fit the puzzle on the board. Get the class to draw conclusion(s) about the Earth’s continents. Introduce Alfred Wegner and his theory of continental drift. Discuss the discovery of the Mid-Atlantic Ridge and sea floor spreading. Show the Mid-Atlantic Ridge on a world map. Briefly discuss the interior of the Earth. Discuss the evidence that support the theory of sea floor spreading and also the theory of continental drift.

2.6 Our Fragile Earth
Working in groups, ask the class to draw up a list of things that the Earth provides for our survival and to list the ways in which humans are also destroying the Earth. Each group is to brainstorm ideas or ways to reduce the damage that they have listed. The groups will share their lists. Teacher summarizes all the information on the board.
## Learning Objectives:

- explain how the physical environment affects what we do and how our activities affect the physical environment
- explain the man-land relationship
- explain how the various factors are changing the man-land relationship
- describe how the !Kung Bushmen adapt to the physical environment
- describe how people in Pakistan adapt to the environment
- compare the adaptation of the !Kung Bushmen and the people of Pakistan

## Strategies / Suggested Activities

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</table>
| **3.1 How Does the Environment Affect Us?**<br>Ask the class what they will do if the following occurs:  
  - it rains on a trip to a park or beach?  
  - it becomes very cold one day?  
  - there is a drought?  

  Discuss with the class how the environment affects us in various ways, directly and indirectly. | Textbook pp. 30–41 |
| **3.2 How Do We Affect the Environment?**<br>Ask the class if humans also affect the environment. Class may be divided into groups or pairs to discuss among themselves before sharing with the class.<br>Discuss how we affect the environment.<br>Write down the major points from the discussion on the board. | |
| **3.3 Physical-human Relationship**<br>From the above discussion, sum it up with the idea of the man-land relationship. Stress that it is a two-way relationship. | |
| **Population Growth**<br>Ask the class if the population is larger now or 50 years ago. They have discussed how humans can impact the environment earlier on, question them how the larger population will impact the environment. What does a larger population mean when it comes to food, houses, jobs etc? Emphasise that a larger population means a greater impact on the environment. | Pictures of the Industrial Revolution |
| **Technology**<br>Ask the class if they have any idea about the Industrial Revolution. Talk about the Industrial Revolution and how it changed production. The teacher may wish to show pictures of the machines used then and the fuel needed to power those machines. The introduction of machines made production faster and larger in scale. This has increased the impact on the environment. | Pictures of !Kung Bushmen |
| **3.4 How Do the !Kung Bushmen Adapt to the Physical Environment?**<br>Show pictures of !Kung Bushmen and their activities, homes and food and the environment they live in. Ask questions based on the pictures to encourage student input. Working in pairs, students are to list the ways in which the environment affect the !Kung Bushmen and vice versa. Students share their lists with the class. Complete the activity in the textbook. | Textbook p. 35-36 |
### 3.5 How the People in Karachi, Pakistan Adapt to Their Environment?
Show pictures of various aspects of Karachi. Working in pairs, students are to list the ways in which the environment has affected the people and vice versa. Share with the class their answers.

### 3.6 Differences in Physical-Human Relationships
To sum up this section, students work in pair to compare the people-environment relationship of the !Kung people and the people in Karachi. Compare their answers with those in the textbook.

<table>
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<tr>
<th>3.5 How the People in Karachi, Pakistan Adapt to Their Environment?</th>
<th>Pictures of Pakistan and people</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.6 Differences in Physical-Human Relationships</td>
<td>Textbook p. 39–40</td>
</tr>
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Learning Objectives:

- identify the different types of landforms
- describe the different types of landforms

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<tr>
<td><strong>4.1 What Cause Landforms to Be Formed?</strong></td>
<td>Textbook p. 42–50</td>
</tr>
<tr>
<td>Show the class pictures of mountains, hills and plateaus on this website at:</td>
<td>Internet</td>
</tr>
<tr>
<td><a href="http://www.edu.pe.ca/southernkings/landforms.htm">http://www.edu.pe.ca/southernkings/landforms.htm</a></td>
<td></td>
</tr>
<tr>
<td>Ask students how they think these are formed.</td>
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</tr>
<tr>
<td><strong>4.2 What are the different types of landforms?</strong></td>
<td></td>
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<tr>
<td>Mountain, Hill and Plateau</td>
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</tr>
<tr>
<td>Working in groups, list the differences and similarities of the three types of landforms that were shown earlier (for e.g., height, shape, formation etc). Teacher to summarize the differences and similarities. Discuss the formation of fold mountains and their distribution. Discuss mountains that are volcanic in origin.</td>
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<td>As a group activity, ask students to make their own paper model of a volcano at:</td>
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<tr>
<td><strong>Plain and valley</strong></td>
<td>Textbook pp. 47-48</td>
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<tr>
<td>Show pictures of plains and valleys. Working in groups, list the differences and similarities. Teacher summarizes the differences and similarities. Show pictures U- and V- shaped valleys. Ask class for the differences. Discuss the reason(s) for the differences in shape.</td>
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<tr>
<td>The class may be divided into groups to research on a famous landform found in their home country. They may collect pictures and provide a brief write up of the landform.</td>
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<tr>
<td><strong>Slide show</strong></td>
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<tr>
<td>Teacher may wish to prepare a slideshow of the different types of landforms to wrap up this chapter. Ask students to think of the various uses of these landforms.</td>
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</table>
Learning Objectives:

- define and list three uses of maps
- identify and describe the various types of maps
- identify symbols represented on maps
- measure distances on maps and use the map scale to convert map distance to ground distance
- locate a place on a topographical map using cardinal points 4-figure and 6-figure grid references
- identify major relief features using contour patterns

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<tr>
<td><strong>5.1 Finding Your Way Around</strong></td>
<td>Textbook p. 51–80</td>
</tr>
<tr>
<td>Each student to get a partner. One student will try to give directions to her house while the other will try to draw up a map. Student giving the directions to look at how accurate the map is at the end of the exercise. Ask students if it was easy to describe the directions and to follow the directions given verbally. Stress the importance of maps.</td>
<td>Paper, pencil</td>
</tr>
<tr>
<td><strong>5.2 Maps</strong></td>
<td>Political, thematic, economic or resource, physical, road and topographical maps</td>
</tr>
<tr>
<td>Ask class what maps represent or show. Define map. Ask the class what people in the past use to guide them to get from one place to another. Trace the development of maps making use of the diagrams in the textbook.</td>
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<tr>
<td><strong>5.3 Uses of Maps and</strong></td>
<td>Topographical map</td>
</tr>
<tr>
<td><strong>5.4 Types of Maps</strong></td>
<td>Textbook p. 60</td>
</tr>
<tr>
<td>Show the class the various types of maps: political, thematic, economic or resource, physical, road and topographical map. The teacher could print copies of worksheets with these maps on them. Working in pairs, the students list the information that each type of map provides and the people who are likely to use each type of map and why they think such people would make use of each type of map. Each pair to present their list to the class.</td>
<td>Ruler</td>
</tr>
<tr>
<td><strong>5.5 What is on a map?</strong></td>
<td>String</td>
</tr>
<tr>
<td>Show the class a map with all the elements on it. Ask the class to name what they see on the map. For each element that they name, ask them the purpose of that particular element. For example, for the scale, ask them what it is used for and why is there a need for a scale. Do the same for the other elements.</td>
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<tr>
<td><strong>5.6 Symbols</strong></td>
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<tr>
<td>Refer students to the legend of the map. Ask students what each symbol represent. Ask them why there is a need for symbols.</td>
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<td><strong>5.7 Scale</strong></td>
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<tr>
<td>Ask students if they have a road that is ___ km long on the ground: 1. How would they draw it on a map? 2. How would they let the map user know that the road is ___km long on the ground? Explain the importance of a scale.</td>
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<tr>
<td><strong>5.8 Measuring Distance</strong></td>
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<tr>
<td>Refer them to the map of Evanston. Choose a straight part of the secondary road. Ask the students how they would measure the distance. Ask a volunteer to demonstrate/explain on the board how to measure straight line distance. Have a volunteer convert the distance on the map to the distance on the ground using the scale on the map.</td>
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</tbody>
</table>
Choose a curved part of the main road and ask a volunteer to measure the distance. The students may come up with innovative ways to do so. Explain the usual method of using a string. Convert the map distance to real distance using the map scale.

5.9 Finding Location
Give each pair of students a topographic map without the grid line numbers. The teacher can print the map of Evanston found in the textbook after deleting the numbers for the grid line. One student will try to tell the partner where the following are: school, bank, Evanston. Have the students share their experiences. Ask them if it was easy to describe a location without proper references. Introduce grid references: four-figure first, then the six-figure references. Explain how to locate a place using grid references.

5.10 Finding Direction
Show a compass or a picture of it. Ask class what it is used for and name the important points on the compass (cardinal points). Explain how to show the direction of a place with reference to another point on the map.

Do the Activity using the map of Emily Town.

5.11 Latitudes and Longitudes
Students to get a partner. Give each pair a world map without latitudes and longitudes drawn in. Choose a major city or a city the class is familiar with. Ask the class how they would describe the location of the city to their partner classmate. They will have some difficulty with the precise location. Next give each pair a world map with the latitudes and longitudes drawn in. Ask them to describe the location of the chosen city to their partner. Do not introduce the use of latitudes and longitudes as yet. Some resourceful students will use latitudes and longitudes to describe the location of the city.

Latitudes
• Introduce latitudes and longitudes.
• Explain what latitudes are using Fig 5.15. Introduce class to the major latitudes. Show Fig 5.16. Explain the significance of the major latitudes.

Longitudes
Introduce longitudes. Show Fig 5.17 and explain the significance of the major longitudes. Introduce class to the International Date Line in Fig 5.17.

Using Fig 5.20, explain how the International Date Line separates the eastern and western hemisphere. Ask students which country, Fiji or Samoa will see the sunrise first. Ask them why they choose that particular country. They should use the direction of the earth’s rotation to help explain which country sees the sunrise first.

Putting Latitudes and Longitudes Together
Ask class which way of describing the location is easier and clearer in the earlier activity in the introduction, with or without the latitudes and longitudes. Using Fig 5.21, explain how latitudes and longitudes help to locate places in the world. Use Fig 5.22 to demonstrate how to show location.
5.12 Time zones
Show a table that has the time of different major cities.
Go to

http://www.timeanddate.com/worldclock/

and check the time of different cities around the world. Ask class why the
time varies across the world. Once they have managed an explanation or
something close, explain why the differing time across the world. Using Fig
5.23, explain time zone and how to read the map.

5.13 Photographs
Students to group in pairs. Distribute one photograph and sketch paper to
each pair. One partner will try to describe the picture while the other try to
make a sketch based on the description. Present the sketches to the class
and show the real photograph. At the end of the session, teacher explains
that proper vocabulary is important when describing a photograph.

Using Fig 5.26, walk the class through the steps in photograph interpretation
– look for caption, what they see in the foreground, middle ground and
background etc. Show class Figs 5.24 and 5.25. Ask the class to describe
what they see in the picture and identify the feature shown. To make it
more interesting, add more photographs for the class to describe.

Aerial photographs
Show Figs 5.27 and 5.28. Ask class what is the difference between these
and Figs 5.24 and 5.25. Explain the difference. Walk the class through the
steps in aerial photograph interpretation.

Satellite images
Show Figs 5.30, 5.31 and 5.32. Ask the class what are the differences
between these and those photographs they have seen so far. Explain
the differences. Walk the class through the steps in interpreting satellite
images.
Learning Objectives:

- distinguish between weather and climate
- describe the earth’s atmosphere and explain why the earth can support life
- list the elements of weather and explain the various factors that affect them
- explain the formation of the three types of rainfall
- explain the relationship between air pressure and temperature
- explain the factors that affect climate of a place
- explain a simple weather forecast
- describe the evidence of climate change
- describe and explain the effects of droughts and flooding

Strategies / Suggested Activities

6.1 Weather and Climate
Working in pairs, students to write down their observation about the day and the day before:
- the temperature of the day
- is the day sunny or cloudy?
- any rain and if there is rain is it heavy, a shower or drizzly?
- is it a windy day and is it breezy, gusty etc.

Get a few pairs to share their observations.
Introduce “weather”. Ask class what comes to mind in terms of temperature and precipitation when they read/hear the following:
1. winter in Canada
2. summer in Spain
3. autumn in England
4. spring in Japan

Introduce “climate”. Distinguish between the two.

6.2 The Earth’s Atmosphere
Refer students to Chapter 2, section 2.6 (p. 21) “Why is life possible on Earth”. Recall the factors that make earth habitable. Stress the importance of the earth’s atmosphere. Explain how the atmosphere protects the earth and maintains its temperature.
Revise concepts at:

http://earthguide.ucsd.edu/earthguide/diagrams/atmosphere/index.html

6.3 Elements of Weather
Temperature
Ask students what they observe about the temperature throughout a day – temperature usually increases with the day. Ask students their observation of the temperature during a year. Explain that temperature changes within a day and throughout the year.
Define temperature and explain how temperature is measured.

Show a picture of the Stevenson Screen at

http://commons.wikimedia.org/wiki/File:Stevenson_screen_interior.JPG

and ask students to identify some of the special features of the Stevenson Screen. Ask them why these features are important. Explain the reasons.
Humidity
Place a large jug of ice cold water/water with ice in front of the class. Ask students to observe the jar/jug after 10–15 minutes (there will be water droplets on the outside of the jug). Ask the class to explain what they observed. Introduce “humidity”.

Next, place a jug of boiling hot water in front of the class. Place a plastic bag filled with ice cubes over the mouth of the jar/jug. Place a bag of ice cubes such that a corner of the bag forms a tip in the jug. This is to allow the water that condenses to drip at one point. Allow students to observe the processes. Ask the class for an explanation for what they observed. Introduce the following: evaporation, cooling and condensation. This explanation will help them to understand cloud formation and precipitation. Explain the relationship between air temperature and humidity.

Clouds
Show the class pictures of the three major types of clouds – cumulus (heap), cirrus (high and light) and stratus (layer) at
http://asdww.larc.nasa.gov/SCOOL/tutorial/clouds/cloudtypes.swf

Ask the class for any differences in the appearance of the clouds. Explain that clouds can be of various heights and structure and what each type of cloud tells about the impending weather. Explain the importance of clouds other than that of precipitation.

Rainfall
Recall the three major processes involved in precipitation – evaporation, cooling and condensation. Explain that evaporation starts off with heating, followed by rising of the air mass, cooling and condensation. Explain the three situations in which the air mass is caused to rise. Introduce students to the three types of rainfall at:

To summarise, students to work on pairs to write down the similarities and differences of the three types of precipitation.

Air pressure
The teacher could demonstrate using two balloons that air has weight and hence exerts pressure. Take two inflated balloons and balanced them on a long pole/ruler. Deflate one of the balloons and allow students to see what happened to the balance between the two balloons. The deflated balloon is now lighter which shows that air has weight. Introduce “air pressure”. Explain the relationship between air temperature and air pressure. Explain the relationship between air pressure and weather conditions.

6.4 Factors That Affect Climate
Latitude
Show the class a world map and ask them what they think is the temperature of places near the equator and those further away. Show them the differences in intensity of the sunlight at various parts of the earth and explain how that affects the temperature. Now, ask the class if they are able to explain why places nearer the equator are hotter than those further away.

Land and sea breezes
Ask the class if it is cooler to live by the sea or further inland. For those who think it is cooler near the sea, ask them for a reason. Explain how land and sea breezes affect the temperature of a place near the sea at:
Distance from the sea
Working in pairs, ask the class to extend the explanation for land and sea breezes affecting coastal temperature to places near the coast and those far inland in the various seasons. Make use of the heat absorption ability of water and land in the explanation.

Ocean currents
Show the class the map of the world’s ocean currents. Point out the warm and cold currents. Ask them why the distinction and why some ocean currents are warm and some are cold. Ask them the effects of each type of ocean current. Allow them to draw conclusion about the type of ocean current and the effect on the temperature of a place.

Prevailing winds
Explain what prevailing winds are. Ask the class what happens when the wind blow over the sea. Hint that the sea is a water surface and precipitation involves evaporation of water. Ask them what happens when the wind blows over land instead. Allow them to draw conclusion about winds that blow over water surface and land surface and how the wind will affect the climate/precipitation of a place. The teacher to summarise the effect of prevailing winds on the climate.

6.5 Weather Forecast
Show the class a weather forecast report. Point out the important features and relevant information in the report. Ask them who would make use of the weather forecast and why.

How to read weather forecast
Highlight the important features and the information. Point out what each piece of information means.

6.6 Is Our Climate Changing?
Show the relationship between greenhouse effect and global warming at:

http://earthguide.ucsd.edu/earthguide/diagrams/greenhouse/index.html

Watch a video on climate change at:

http://video.nationalgeographic.com/video/way-forward-climate

This is a video by the National Geographic about climate change, the causes and some ways to reduce carbon emission. It is a good springboard to a discussion on climate change. The class will get into groups and write down the causes, evidence and the measures that can be taken to reduce carbon emission, the chief culprit of climate change.

Evidence of climate change
Make use of the discussion in the above video for this section.

Droughts
Ask the class what will happen to their garden/plants if there is no water for a few days and for a period of time? Define “drought”. What will happen to a farmer’s crop and animals if there is no water for a period of time? How will the drought affect food supply, human health and the land? The teacher summarises all the effects of drought. It may be a good idea to sum up this section with a video clip.
This is a UNICEF video about the effects of drought in Ethiopia.

**Floods**
Show video clip of Pakistan’s floods in July 2010 at:

http://www.unicef.org/photography/photo_essays_all.php?pid=2AM4082OMTP4

Ask the class what happens during the flood. Do they know why the floods caused so much destruction in Pakistan in 2010?

Distribute these three articles to different groups to read:

http://www.guardian.co.uk/commentisfree/2010/aug/05/pakistan-floods-failure-state


http://www.idsa.in/idsacommunity/PakistanFloodsCausesandConsequences_mbisht_190810

Students are to classify the reasons under human and physical causes and share with the class their findings.

**Field trip**
A field trip to a meteorological station will be a meaningful activity to wrap up this chapter. Students will be able to learn about the instruments that are found in the station and the proper ways in which they are placed and how a weather forecast is carried out.
# Learning Objectives:

- describe the distribution of the major climate types
- describe the characteristics of the tropical, temperate and polar climates

## Strategies / Suggested Activities

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<th>Strategies / Suggested Activities</th>
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<tr>
<td><strong>7.1 Distribution of Climate Types</strong></td>
<td>Textbook p.102-107</td>
</tr>
<tr>
<td>Show the class a map of the world. Divide the world into three broad bands — the tropics, the temperate latitudes and the polar latitudes. Ask students the characteristics of the climate (e.g. temperature, precipitation and variations throughout the year) within each of the three bands. Divide the class into groups. Present each group with pictures/photographs showing different climates. Give each group a blank world map (A3 size) and have the group pin the pictures/photographs onto parts of the world that they think correspond to the climate shown in the pictures/photographs. Get the students to give reasons for their conclusions.</td>
<td>Blank world map (A3 size) Photographs showing different climates</td>
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<tr>
<td><strong>7.2 Tropical Climate</strong></td>
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<tr>
<td>The teacher walks the students through the characteristics of the tropical climate.</td>
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<tr>
<td><a href="http://www.blueplanetbiomes.org/rainforest.htm">http://www.blueplanetbiomes.org/rainforest.htm</a></td>
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<tr>
<td><strong>7.3 Temperate Climate</strong></td>
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<tr>
<td>Refer students to the world map and ask them to observe the distribution of the continents in the two hemispheres. A large percentage of the land is found in the northern hemisphere. Refer them back to what they have learnt about the effect of the distance from the sea on temperatures. With the large land masses in the northern hemisphere, what can they infer about the summer and winter temperatures of places on these continents? Introduce the Warm and Cool Temperate climates. Ask the students what they expect the temperatures of the two types of temperate will be like and why.</td>
<td>world map</td>
</tr>
<tr>
<td><strong>7.4 Polar Climate</strong></td>
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<tr>
<td>Recall with students what they have learnt about the intensity of sunlight away from the equator. Ask students what they expect the temperatures at the higher latitudes to be like. Help the students to make the connection between the low temperatures at the higher latitudes and the intensity of the sunlight. Describe the characteristics of the polar climate.</td>
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Learning Objectives:

- describe the different types of forest biome
- locate the distribution of various types of natural vegetation on a world map
- explain the factors that affect the type of natural vegetation
- explain the adaptation of the various types of natural vegetation to the physical environment
- explain the causes and consequence of the destruction of the tropical rainforests
- describe the measures taken to reduce the destruction of the tropical rainforests

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<tr>
<td><strong>8.1 Natural Vegetation and the Ecosystem</strong>&lt;br&gt;Show the class a simple food chain. Ask students to examine what will happen if one of the organisms is reduced in number/increased in number. Stress the interconnectedness of the organisms in the food chain and the importance of plants in the chain.</td>
<td>Textbook pp. 108–132</td>
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<tr>
<td><strong>8.2 World Distribution of Natural Vegetation</strong>&lt;br&gt;Get the class to get into groups. Refer students to the world maps showing rainfall and natural vegetation found in the textbook. Each group will have to show and explain the connection between rainfall and natural vegetation. The group will find out the amount of rainfall that is needed to support each type of vegetation. They are to divide the vegetation into broad categories – forests, grasslands and desert vegetation.</td>
<td>Textbook p. 110</td>
</tr>
<tr>
<td><strong>8.3 Factors Affecting Natural Vegetation</strong>&lt;br&gt;<strong>Rainfall</strong>&lt;br&gt;From the above section, the relationship between rainfall and the type of natural vegetation is established. Explain further how the amount of rainfall affects growth and the type of vegetation.&lt;br&gt;&lt;br&gt;<strong>Temperature</strong>&lt;br&gt;Ask students if a conifer tree is suitable in a desert or the tropical area and why it is not suited for other climate. Similarly, ask them if a tropical tree can be grown in a desert/cold place. Explain how temperature affects the growth of trees.&lt;br&gt;&lt;br&gt;<strong>Sunlight</strong>&lt;br&gt;Show the class pictures of vegetation in the fall and winter. Ask them their observation of the trees and what they can infer about sunlight and tree growth. Explain the importance of sunlight in photosynthesis. Ask them what they think the trees in the tropics will be like (size, leaves) and those in temperate places.</td>
<td>Photographs of the various types of natural vegetation</td>
</tr>
<tr>
<td><strong>8.4 The Earth’s Main Ecosystems</strong>&lt;br&gt;From the first section, the class has established the amount of rainfall that is needed to support the various types of vegetation. Distribute pictures/photographs of the various types of natural vegetation. Have the groups sort the pictures out into three categories – forests, grasslands and desert vegetation. Each group is to explain their conclusions.</td>
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</table>
Forests
Introduce the sub-types – equatorial and tropical monsoon; temperate and deciduous, and coniferous. Refer students back to the factors that affect natural vegetation – rainfall, temperature and sunlight. With that understanding, they will be able to place the different types of forest at the appropriate latitudes. Allow each group to work on this and present their conclusions.
The teacher to explain the characteristics, especially those that are a result of adaptation to the different temperatures and sunlight.

Grasslands
Introduce the sub-types – tropical and temperate. Draw the class’ attention to the characteristics of tropical and temperate climates. Ask for the likely latitudes that they can find the two types of grasslands. Given the characteristics of the climates, what are the characteristics of the grasslands? The students may work in groups to work on this and present it to the class, explaining their conclusions. Teacher is to summarise the characteristics.

Desert vegetation
Introduce the sub-type – hot desert and cold tundra. Define a “desert”. Ask the class what is similar about a desert and the tundra (mainly both receive low annual rainfall of less than 250 mm). What is the difference between a desert and the tundra (temperatures)? Working in groups, distribute pictures of hot desert and tundra vegetation. Allow the groups to sort out the pictures into hot desert and tundra vegetation. The groups are to present their conclusions. The teacher then walks the class through the characteristics of the two types of vegetation.

8.5 The Destruction of the Tropical Rainforests
Watch a video clip on deforestation to kickstart the discussion at

http://education-portal.com/academy/lesson/deforestation-definition-causes-consequences.html#lesson

This is a reasonably good video that covers most of the causes of deforestation. It also includes some things one can do to help prevent deforestation.
Working in groups, students to list the causes of deforestation in the Amazon. Each group will present an explanation for each of the causes. Each group will also list the measures that can be taken to help reduce deforestation and present to the class.

What happens when the forests are destroyed?
Allow class to work in groups to explain what would happen when the forests are destroyed following the headings – land; plants and animals; native South American Indians; forest trees; clouds and climate.

Saving the rainforests
This has been discussed in the section on destruction of the rainforests but mainly on an individual basis. Teacher walks the class through the efforts at the national level to save the rainforests.
Learning Objectives:

- differentiate between “subsistence” and “commercial” agriculture
- describe the characteristics and processes of shifting agriculture
- locate the distribution of intensive rice cultivation in Pakistan
- describe the characteristics and processes in rice growing in Pakistan
- describe the characteristics and processes in high technology agriculture in Singapore
- describe the improvements in agriculture

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<tr>
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<tr>
<td><strong>9.1 What Is Agriculture?</strong></td>
<td>Textbook p. 133–145</td>
</tr>
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</table>
| Show the class pictures of farming (growing, sowing, harvesting of food and fruit crops); animal farming (dairy and meat cattle; poultry; lambs etc); growing of natural fiber (cotton growing). Have the class group them into suitable categories and have them explain their choices. Define “agriculture”.
| Internet                        |           |
| **9.2 The Different Purposes of Agriculture** |           |
| Ask the class what farmers do with their harvests. Introduce “subsistence" and “commercial” agriculture. |
| **9.3 The Importance of Agriculture** |           |
| Let students read this article titled “Importance of Agriculture” at [http://www.guesspapers.net/2295/importance-of-agriculture/](http://www.guesspapers.net/2295/importance-of-agriculture/).
| After reading, ask the class to share their thoughts on the importance of agriculture to Pakistan. Summarise the importance of agriculture in supplying food, employing people, earning foreign exchange and reducing poverty and hunger. |
| **9.4 Types of Agriculture**    |           |
| **Shifting cultivation**        |           |
| Show the distribution of shifting cultivation in the world. Ask the class to recall what they have learnt about the climate and natural vegetation of the tropical regions where shifting cultivation is carried out. What are their expectations of shifting cultivation – size of farm, equipment, technique, crops, size of harvest, subsistence or commercial? The class is to discuss the characteristics of shifting cultivation. |
| **Wet rice cultivation: Rice growing in Pakistan** |           |
| Hold a class discussion on the importance of rice in Asia and Pakistan. The teacher may wish to prepare a series of pictures showing the processes involved in rice growing – ploughing, sowing, transplanting, fertilising and weeding and harvesting. Introduce the class to wet rice growing. |
|                                 |           |
Show the map of Pakistan and the rice-growing areas. Ask the class to identify the broad areas (for e.g. the province). Ask them why rice is grown in these areas (main reason being the supply of water from irrigation). Explain the physical factors that have helped in rice growing. Ask them what the types of rice grown in Pakistan are. Introduce them to the main types of rice and where they are grown.

**High technology agriculture**

View a video clip on hydroponics cultivation at


A clear and simple account of hydroponics.

Ask the class what they observe about hydroponics and the usual form of soil cultivation. List the advantages and disadvantages (if any) of hydroponics.

**9.5 Improvement in Agriculture**

Discuss the causes and the impacts of improvements in rice production technology in Pakistan.

**Field trip**

A field trip to a farm may be appropriate after this chapter.
Review Exercise 1 (Chapters 1, 2 and 3)

Multiple Choice Questions (15m)
For each of the following question, four choices are given as the answer. Choose the best answer and write its letter in the brackets provided.

1. Which one of the following statements best describes the study of Geography?
   (a) It is about man and the activities he is engaged in.
   (b) It is about man and the Earth in which he lives.
   (c) It is about man and his immediate atmosphere.
   (d) It is about man and how he uses the Earth’s natural resources. (      )

2. The study of Geography is useful in that it helps ______________.
   (a) in the use of the Earth’s resources
   (b) people to adjust to changing environments
   (c) in understanding the relationship between people and the environment
   (d) in planning the development of land (      )

3. Which one of the following statements about the physical environment is correct?
   (a) It is the result of the interaction of the physical and the human environments.
   (b) It includes the physical and the human features.
   (c) It is natural and is a result of natural processes.
   (d) It is the environment that cannot be changed. (      )

4. In environmental Geography, we learn about ______________.
   (a) the close connection between people from all parts of the world
   (b) how closely linked human activities and the physical environment are
   (c) how human activities bring about changes to the environment
   (d) how humans respond to the physical environment (      )

5. Which one of the following is not a physical feature?
   (a) Mount Everest
   (b) The Amazon rainforest
   (c) Grand Canyon
   (d) Aspen ski resort (      )

6. Which one of the following is a human feature?
   (a) Mangrove swamp
   (b) Pineapple plantation
   (c) Desert
   (d) Tropical rainforest (      )

7. All of the following are the result of man’s actions except ______________.
   (a) deforestation
   (b) pollution
   (c) earthquakes
   (d) city building (      )
8. The connection between people and the earth is best shown by ________________.
   (a) the type of soil affecting the crops that farmers grow
   (b) family size and the type of housing
   (c) the choice of holidays and the earning of the family
   (d) the different levels of development and the climate

9. The earth is suitable for living things because it has all of the following except that it has ________________.
   (a) an atmosphere
   (b) water
   (c) the right temperature
   (d) natural vegetation

10. What is “Pangea”?
    (a) It is a huge land mass formed by all the continents of the world.
    (b) It is the earth’s crust that is broken up due to earthquakes.
    (c) It is the largest continent of the world.
    (d) It is the Mid-Atlantic Ridge.

11. Which one of the following is evidence that the continents have drifted apart?
    (a) The fossils found in different continents are the same.
    (b) The plants and animals in different continents match.
    (c) Coal is found in different continents.
    (d) The presence of the same type of rock layers on different continents.

12. It is important to understand how humans affect the environment because ________________.
    (a) the effect can be harmful to the environment
    (b) the earth’s natural resources can be better used
    (c) eventually the effects would affect humans
    (d) the earth is constantly changing

13. The activity that has the least effect on the environment is ________________.
    (a) rice growing
    (b) mining for oil
    (c) shifting cultivation
    (d) gathering of food by the !Kung Bushmen
14. The example that best shows how the environment affects humans is _______________.
   (a) the climate affecting the type of natural vegetation of a place
   (b) the drifting of the continents to where they are today
   (c) people living close together for protection against animals
   (d) the amount of rainfall affecting farmers’ decision to plant their crops

15. Which one of the following is the odd one out?
   (a) Tropical rainforest
   (b) Polar ice caps
   (c) The Himalayas
   (d) The Hoover Dam

Short Answer Questions (15m)

1. Examine Figures 1 and 2 below and answer the following questions.

   **Figure 1: Farming**

   **Figure 2: Raising cattle**

   (a) What are the human features in Figures 1 and 2? (2m)
2. Refer to Figures 3 and 4 and answer the questions that follow.

Figure 3: Farmer in Balochistan, Pakistan  
*Source: parc.gov.pk*

(a) Describe the physical environment in Figures 3 and 4. (2m)

(b) How have the people in Figure 3 adapted to the physical environment? (2m)

(c) How have the !Kung bushmen in Figure 4 adapted to the environment? (3m)

(d) Compare the activities in the two pictures. Which do you think has more effect on the environment? Why? (3m)
Review Exercise 2 (Chapters 4, 5 and 6)

Multiple Choice Questions (15m)
For each of the following question, four choices are given as the answer. Choose the best answer and write its letter in the brackets provided.

1. Which one of the following statements about landforms is false?
   (a) All landforms are formed by the same processes.
   (b) Floodplains are one of the most populated regions in the world.
   (c) Landforms do not remain the same but change with time.
   (d) Some landforms may disappear after a very long period of time.  

2. Fold mountains are formed as a result of ________________.
   (a) the piling up of lava
   (b) the movements of the earth’s crust
   (c) erosion that leaves only the harder rocks behind
   (d) millions of years of deposition of materials 

3. The reason floodplains attract people to settle there is the ________________.
   (a) rich minerals found there
   (b) soft soil that is suitable for agriculture
   (c) climate
   (d) fertile soil 

4. The Grand Canyon in the United States of America is an example of a ____________.
   (a) fold mountain
   (b) plateau
   (c) volcano
   (d) valley

5. Who is most likely to use the map shown below?
   (a) A person who studies rocks
   (b) An explorer looking for oil
   (c) A weather man concerned about drought
   (d) A tourist in a major city
6. A feature on a map is drawn according to the _________________.
   (a) scale that makes it look realistic
   (b) scale decided by the map maker
   (c) standard scale used by map makers
   (d) scale used in the map where the feature is drawn

7. Given the line scale below, 1 cm would represent ________________ on the ground.
   km (the scale is 2 cm: 1 km)
   (a) 0.5 km
   (b) 0.5 m
   (c) 50 m
   (d) 5000 cm

8. We use the following to show direction on a map.
   (a) Grid reference
   (b) Cardinal points
   (c) Scale
   (d) Arrows

9. The compass point that is directly opposite of south-east is _________________.
   (a) south-west
   (b) north-east
   (c) north-west
   (d) east-west

10. Weather is the _________________.
    (a) average condition of the atmosphere over a period of time
    (b) day to day changes in the atmosphere
    (c) the average 24-hour temperature and rainfall of a place
    (d) changes in the earth’s condition due to its movements

11. The Six’s thermometer in the school weather station shows a maximum temperature of 32°C and a minimum temperature of 24°C. What is the mean daily temperature?
    (a) 8°C
    (b) 28.5°C
    (c) 29°C
    (d) 28°C

12. Which is the odd one out?
    (a) Rain
    (b) Snow
    (c) Hail
    (d) Storm

13. Wind is a result of the _________________.
    (a) differences in pressure due to unequal heating of places
    (b) changes in surface temperature
    (c) earth’s movements
    (d) differences in the height of land
14. Clouds are formed from the ___________________________.
   (a) cooling of air mass
   (b) evaporation of water
   (c) condensation of water vapour
   (d) warming of air mass

15. The maximum and minimum temperatures for Singapore is 33°C and 29°C respectively. What is the daily
    temperature range?
   (a) 3°C
   (b) 4°C
   (c) 5°C
   (d) 6°C

16. Questions 16, 17 and 18 are based on the diagram below. The diagram shows the position of an island.
    What is the position of the island?

   (a) A 30°E 20°N
   (b) B 20°S 30°E
   (c) C 20°N 30°E
   (d) D 20°N 30°W

17. Mohammed lives on the island. If he rows his boat 10° south and then moves westwards 20°, what will he
    see?
   (a) A A lighthouse
   (b) B A ship
   (c) C A tanker
   (d) D A coral reef

18. Mohammed would like to bring his visitors to scuba dive around the coral reef. In what direction should he
    move?
   (a) A 10°S, 20°E
   (b) B 10°N, 20°E
   (c) C 10°S, 20°W
   (d) D 10°N, 20°W
Short Answer Questions

1. Study Figure 1 carefully and answer the questions that follow.

   **Figure 1: Climate graph of Mangalore, India**

   (a) What is the maximum temperature recorded at the above station (1m)

   (b) What is the maximum rainfall recorded at the station? (1m)

   (c) Briefly describe the pattern of rainfall at this place. (3m)

   (d) What climate type do you think Mangalore has? (1m)

   (e) Which month(s) of the year would you expect flooding? (1m)

   (f) Which month(s) of the year would you most expect a drought? (1m)

2. Study Figure 1.

   (a) State the three ways how plates move. (3 m)

   (b) Identify give an example of a plate and a fold mountain. (2 m)
(c) Explain how the location of plates affects the distribution of fold mountains in the world. (2 m)

Figure 1
3. Label the following latitudes and longitude on the map below:
   (a) 90°S
   (b) 90°N
   (c) 0° latitude
   (d) 0° longitude
   (e) 45°E

4. In the table below are shown the daylight hours and the temperatures for four cities on a day. Use the information in the table to help you answer the questions that follow.

<table>
<thead>
<tr>
<th>City</th>
<th>Daylight hours</th>
<th>Temperature (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchorage, USA (Northern part)</td>
<td>5</td>
<td>-9</td>
</tr>
<tr>
<td>Chicago, USA</td>
<td>9</td>
<td>-3</td>
</tr>
<tr>
<td>Quito, Ecuador (South America)</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Melbourne, Australia</td>
<td>14</td>
<td>17</td>
</tr>
</tbody>
</table>

   a. Which city has the longest day? (1m)
      ______________________________________________________________________

   b. Which city has the fewest number of daylight hours? (1m)
      ______________________________________________________________________

   c. What season of the year do you think USA is experiencing? (1m)
      ______________________________________________________________________

   d. Give two reasons for your answer in (c). (2m)
      ______________________________________________________________________
      ______________________________________________________________________
5. With the help of the information contained in the above table, explain why it is cold in Anchorage, USA and warm in Quito, Ecuador. (Hint: use what you have learnt about the seasons.)

________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________

Review Exercise 3 (Chapters 7, 8 and 9)

Multiple Choice Questions (15m)
For each of the following question, four choices are given as the answer. Choose the best answer and write its letter in the brackets provided.

1. Which one of the following is the odd one out?
   (a) Tropical rainforest
   (b) Desert vegetation
   (c) Temperate grassland
   (d) Plantation

2. The tropical climate is characterized by all of the following except ____________________.
   (a) high temperatures throughout the year
   (b) abundant rainfall
   (c) large daily temperature range
   (d) small annual temperature range

3. Which one of the following best describes the polar climate?
   (a) Warm summer and cool winter.
   (b) Short summer and long winter.
   (c) High daytime temperature and bitterly cold night.
   (d) Precipitation is often in the form of frozen rain.

4. The warm temperate climate is so called because ____________________.
   (a) the summers are cool and the winters are warm
   (b) the temperatures in winter do not fall below freezing point
   (c) of the frequent warm sea breeze in winter
   (d) of the warming effects of the land in summer

5. Precipitation is sometimes in the form of snow in winter in the ____________________.
   (a) warm temperate climate
   (b) cool temperate climate
   (c) tropical monsoon climate
   (d) equatorial climate

6. In summer, the tropical monsoon winds bring about ____________________.
   (a) changes in temperature and rainfall
   (b) changes in daily temperature
   (c) cloud cover and rainfall
   (d) seasonal pattern of rainfall
7. Although the growth of trees in the tropical rainforest is dense, there is little undergrowth. What is the reason for the little undergrowth?
   (a) The poor topsoil
   (b) The small amount of water available
   (c) Flooding of the forest floor
   (d) The lack of sunlight

8. Conifers do not shed their leaves. This is because the trees ____________________.
   (a) are cone-shaped
   (b) have needle-like leaves
   (c) have thick bark
   (d) are thorny

9. Which of the following type of vegetation is found at latitude 65° N?
   (a) Short and thorny bushes
   (b) Short bushes with waxy leaves
   (c) Long tough grasses with short life
   (d) Small tough grasses with short life

10. The tropical rainforests around the world have been destroyed due to ____________________.
    (a) the use of plants in making medicine
    (b) clearing of land for agriculture
    (c) animals leaving the forests as their numbers grow too large
    (d) cutting down of trees to build parks

11. Which of the following below refers to agriculture?
    (a) A farmer grows rice to feed his family.
    (b) A gardener grows roses and other flowers as a hobby.
    (c) A man catches fish for food.
    (d) A woman goes into the wild to collect wild honey.

12. Agriculture is important in many countries as it ____________________.
    (a) uses the land that would otherwise be left unused
    (b) provides jobs for many people
    (c) uses up the country’s water resources
    (d) helps the country to spend money on farm equipment

13. Irrigation is very important in Pakistan because ____________________.
    (a) there are few large rivers in Pakistan
    (b) rice needs plenty of water to grow well
    (c) a large part of Pakistan is dry
    (d) irrigation has played an important role for a long time

14. One main disadvantage of shifting cultivation is the ____________________.
    (a) small farm size
    (b) small number of people that can work on the farm
    (c) small number of crops that can be grown
    (d) small harvest that can feed a small number of people
15. High technology farms are good because _________________.
   (a) they are clean, use little land and water
   (b) the crops do not have to depend so much on the weather and climate
   (c) the people working the farms are educated
   (d) machines and computers do much of the work

Short Answer Questions (15m)

1. Study the information given in the table below carefully before you answer the questions that follow.

<table>
<thead>
<tr>
<th>Yearly Rainfall (mm)</th>
<th>Temperature (°C)</th>
<th>Vegetation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,000–2,000</td>
<td>20–30</td>
<td>Forests</td>
</tr>
<tr>
<td>200–1,000</td>
<td>20–30</td>
<td>Grasslands</td>
</tr>
<tr>
<td>Below 250</td>
<td>Above 30</td>
<td>Desert plants</td>
</tr>
</tbody>
</table>

(a) If the place you live in has a yearly rainfall of 1,500 mm, what type of vegetation will be most common? (1m)

(b) What is the relationship between the amount of yearly rainfall and the type of vegetation? (2m)

2. (a) Describe the vegetation in Figure 1, in terms of the type and colour of the leaves, and the height of the trees. (3m)

Figure 1
(b) Give two reasons why the plants have the characteristics that you described in 2(a). (2m)

________________________________________________________

________________________________________________________

3. (a) Arrange the following processes in wet rice growing in order by writing the correct number in the boxes. (1m)

<table>
<thead>
<tr>
<th>Processes</th>
<th>Order in which it occurs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sowing of seeds</td>
<td></td>
</tr>
<tr>
<td>Fertilisation and weeding</td>
<td></td>
</tr>
<tr>
<td>Harvesting of crop</td>
<td></td>
</tr>
<tr>
<td>Ploughing of field</td>
<td></td>
</tr>
<tr>
<td>Transplanting of seedlings</td>
<td></td>
</tr>
</tbody>
</table>

(b) At which stage of wet rice growing is water the most important? (1m)

________________________________________________________

(c) Why is water most important at the stage that you mentioned in 3(b)? (1m)

________________________________________________________

(d) Name three ways in which agriculture is important to a country. (3m)

________________________________________________________

(e) Name one type of agriculture that does not involve the growing of food crops or the raising of animals. (1m)

________________________________________________________
ILSG for Class 6

Answers for Review Exercises

Review Exercise 1 (Chapters 1, 2 and 3)

MCQ (15m)
1. b  
2. c  
3. c  
4. c  
5. d  
6. b  
7. c  
8. a  
9. d  
10. a  
11. a  
12. c  
13. d  
14. d  
15. d

Short Answer Questions (15m)
1. (a) Figure 1 – house, farm  
   Figure 2 – barns  
   (b) Farming in Figure 1 is more dependent on the physical environment.  
   (c) Crops are dependent on temperatures and rainfall.

2. (a) The areas are dry with little rainfall (the land is dry). Trees are absent. Grasses predominate.  
   (b) The !Kung Bushmen do not wear much clothing as the desert is hot and dry. Land is too dry for farming hence they hunt for food.  
   (c) The farmer tills the land to grow his own food. He wears clothes to protect himself from the heat and probably the cold in winter.  
   (d) The farmer in Figure 3 tills the land whereas the !Kung Bushmen hunts for his food. Tilling the land has more impact on the land. The soil is loosened and cleared allowing for erosion.
Review Exercise 2 (Chapters 4, 5 and 6)

MCQ (15m)
1. a
2. d
3. d
4. b
5. d
6. d
7. a
8. b
9. c
10. b
11. d
12. d
13. a
14. c
15. b
16. c
17. b
18. a

Short Answer Questions (15m)
1. (a) 300C
   (b) 1,000 mm
   (c) From January to February, there is no rain. Rainfall increases from March and reaches a peak in July. It decreases from August to December.
   (d) The climate is likely to be hot and wet, with a dry season.
   (e) July is likely to see flooding as the rainfall is the highest in that month.
   (f) A drought is likely in January and February as these two months have no rain.

2. (a) Plates push against, pull apart from or slide past each other.
   (b) South American plate and Andes Mountain (accept other plausible answers)
   (c) Fold mountains are generally found at plate boundaries.

3. (a) 90° S – South Pole
   (b) 90° N – North Pole
   (c) 0° latitude – Equator
   (d) 0° longitude – Prime Meridian
   (e) 45°E – on the given map, the first longitude east of the Prime Meridian

4. (a) Melbourne, Australia
   (b) Anchorage, Alaska, USA
   (c) winter
   (d) The two reasons are:
       • the below zero temperatures
       • the short daylight hours
5. In winter, the Northern hemisphere leans away from the Sun. Anchorage, Alaska is in the Northern hemisphere. As a result of the tilt away from the Sun, it receives less direct Sunlight. Sunlight that is less direct is less intense and less hot. The days are also shorter. The temperatures fall in winter and hence Anchorage is cold. Quito, Ecuador, on the other hand, is in the Southern hemisphere and is experiencing summer. In summer, the Southern hemisphere leans towards the Sun. Quito receives more direct Sunlight that is intense and hot. Daylight hours are also longer. Hence, Quito is warmer than Anchorage.

When plates collide, the amount of folding can be so large that mountains are formed over a long period of time. Or when two or more plates collide, some of the layers of rocks which make up the crust buckle and fold. This process is known as folding.

Review Exercise 3 (Chapters 7, 8 and 9)

MCQ (15m)
1. d
2. c
3. b
4. b
5. b
6. a
7. d
8. b
9. d
10. b
11. a
12. b
13. c
14. d
15. b

Short Answer Questions (15m)
1. (a) Forest vegetation
   (b) Forests are found in places that receive high rainfall. As the amount of rainfall decreases, grasses grow. As rainfall decreases to become low, desert vegetation is found.

2. (a) The characteristics are:
   • broad and green leaves
   • the trees are tall
   • the growth of the trees is dense
   (b) Trees grow well where rainfall is high hence the tall trees. High temperatures throughout the year also encourage tree growth. The trees are green throughout the year as there is sufficient sunlight for the trees.

3. (a) 2, 4, 5, 1, 3
   (b) Water is most important during the growing stage.
   (c) Growing rice plants needs plenty of water to thrive.
   (d) Agriculture is important because it:
      • provides jobs
      • provides food for people
      • earns foreign money for the country when the products are exported
      • helps to grow materials for other industries (e.g. cotton)
   (e) The growing of cotton.