

# MyWorld

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**Teacher's  
Resource Book**

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## Chapter 1: The Physical State of Earth

### Lesson Objectives:

Students will be able to:

1. Describe different Layers and Composition of Earth's interior.
2. Describe the basic concept of Plate Tectonics.
3. Locate the seven major Tectonic Plates on a Map.
4. Discuss Faults and their types.
5. Describe the major Plate Faults in Pakistan and locate them on a Map.
6. Describe the causes of Earthquakes, their effects and distribution.
7. List the great Earthquakes of the World and Pakistan.
8. List instruments and Scales used to measure Earthquakes.
9. Enumerate types and categories of Volcanoes and their distribution,

### Lesson Starters:

Teachers could start the chapter by reminding the students about the spherical nature of Earth. For this, you could use a peeled off coconut and present its different layers comparing it with those of Earth's.



Explain how Earth (though billions of times as large as the coconut) has in it several layers ranging from crust and mantle to outer and inner cores, with its inner mainly full of liquid magma. More earth-coconut comparisons can be made like: watery inner portions, hard outer surface, viscous flesh of coconut versus the boiling magma inside earth's crust, and so on.

**Teaching Strategies:**

Cooperative learning and discussion regarding the earth's plates and their movements is crucial as teaching strategies for this lesson.

The concepts of plates, volcanoes and earthquakes should be easy to explain once the student understands the anatomy of our planet. Many students will already be familiar with the concept of lava; remind the students that it is nothing but a liquefied rock discharge from Earth's mountains.

Teachers must place special emphasis on the diagrams presented along chapter text. If possible, draw and label some of those diagrams on the board. You could also ask students to label the diagrams themselves by looking onto their textbooks.

**Answer to Comprehension Assessment:**

1. Define the following terms

Ans. Atmosphere:

The physical characteristics of earth include its size and composition. It is spherical in shape. It is surrounded by a gaseous envelope which is called **atmosphere**.

Asthenosphere:

Below the lithosphere lies a thin layer that is relatively less elastic and ductile and is known as **asthenosphere**.

Crust:

A thin silicate layer called **crust**. **It is the outer most layer of the earth.**

Magma:

A thick iron and magnesium silicate layer called **mantle**. The mantle also contains malleable semi-solid areas called **magma**, the middle layer of the earth.

Core:

The inner most layer or the centre of the Earth is a dense metallic **core**.

2. Draw a diagram of Earth showing the layers of Crust, Magma and Core

Ans. Draw diagram of layers of earth from book page # 1

3. Define and state the characteristic features of the following:

**Continental Crust:**

The continental crust constitutes around 40% of the Earth's surface. It is made of granite rocks which are generally made up of silicon, aluminium and oxygen. The continental crust stays in its place and is more placid on magma.

It is much thicker than oceanic crust and the thickness varies from plateaus to mountains. It does not undergo any recycling phenomenon that is why it is also considered to be the oldest form of the crust.

### **Oceanic Crust:**

The part of the Earth's crust that covers the oceans is called the oceanic crust. It is composed of silicon, oxygen and magnesium which are found in the form of dark coloured basalt and lava rocks.

The oceanic crust, with the passage of time, gathers a layer of cool mantle on its underside. Due to this phenomenon the two-layer structure sinks into the molten mantle causing a constant recycling of the crust.

4. Write a note on the composition of earth's crust.

The composition of Crust

Since the beginning of time, the blob that was to formulate Earth initiated as a hot, viscid mass of rock. The heaviest composition of mostly nickel and iron moved to the centre and formed the Earth's centre. The molten matter that capsuled the core took the initial form of the mantle.

It took millions of years for the mantle to cool down. The water that was confined between the semi-solid mass erupted with minerals and lava during the cooling by a process called outgassing. The mass that stayed on the surface during this time ultimately formed the initial crust of the Earth.

Earth's crust is composed of a variety of indigenous materials from mud to different elements, **metamorphic and sedimentary rocks**. Most of the **rock formation** on the surface of the earth came into existence after the magma cooled down. Sedimentary rocks were formed by the gathering of the materials on the crust. Metamorphic rocks evolved due to a gradual change in atmospheric pressure and temperature.

The crust still shapes itself by the movement and energy of the earth. The interlocking crust slabs on the surface of the mantle are called **tectonic plates**. The crust and the upper layers of mantle are also known as **lithosphere**. Below the lithosphere lies a thin layer



that is relatively less elastic and ductile and is known as **asthenosphere**. The upper region of asthenosphere is semi-solid and is relatively fluid in its lower region. It is chiefly composed of iron and magnesium silicates and has a viscous consistency.

The movement of tectonic plates gives rise to formation and destruction of crustal materials. On the basis of geographical composition the crust of the Earth is divided into two forms:

1. Oceanic Crust
2. Continental Crust

5. How do we distinguish between lithosphere and asthenosphere?

Ans. The crust and the upper layers of mantle are also known as **lithosphere**.

Below the lithosphere lies a thin layer that is relatively less elastic and ductile and is known as **asthenosphere**. The upper region of asthenosphere is semi-solid and is relatively fluid in its lower region. It is chiefly composed of iron and magnesium silicates and has a viscous consistency.

6. What does the theory of Plate Tectonics state?

Ans. PLATE TECTONICS

From the depth of the oceans to the tallest mountain ranges, the Plate Tectonics theory explains the movement of lithosphere (oceanic and continental crust). The Plate Tectonics theory explains that the lithosphere is divided into several plates gliding on the mantle. These plates behave like a rigid shell compared to the mantle. The movement in these plates causes natural disasters like tsunami and earthquakes.

There are seven major tectonic plates in the world. Their names are as follows:

1. African plate
2. Antarctic plate
3. Eurasian plate
4. Indo-Australian plate
5. North American plate
6. Pacific plate
7. American plate

The driving force between plate tectonics is the convection of the mantle. As the hot material in the earth rises and the cold mantle sinks, convection drives plate tectonics through a series of spreading and pushing ridges apart along with pulling and sinking of subduction zones

7. What are the types of natural disasters that occur due the movement of tectonic plates?

According to the Plate Tectonic theory, Earth is an active plant which is composed of many individual tectonic plates. These tectonic plates change and interrelate with each other, resulting in constant changes in shape of the Earth's outer layer. Volcanoes, tsunamis and earthquakes result from the movement of these plates.

8. What is the difference between an earthquake and a tsunami?

Ans. **Earthquake**

An earthquake results when two tectonic plates suddenly collide or one moves beneath the other. The surface where they collide with each other is called the fault-plane. The location beneath the earth's centre where the earthquake starts is called the hypocentre of the earthquake and the location exactly above the hypocentre is called the epicentre. The magnitude of earthquake is measured with the help of the **Richter scale**.

**Tsunami**

Tsunami is a series of waves caused by underwater earthquake, landslide or volcanic eruption. Most rarely a tsunami can be caused by a meteor impact in the ocean. Tsunami causes oscillatory ocean waves that are propagated to quite large distances.

9. How is erosion different from weathering? State three differences between Erosion and Weathering.

Ans. **Erosion:**

Erosion is caused by the fluid flow of earth particles through the displacement of air, water and ice due to gravitational forces. It is the lifting or physical displacement of rock particles by natural agents like streams, winds and glaciers etc.

**Weathering**

Weathering is referred to the collective processes that are responsible for the destruction of physical and chemical characteristics of rocks on or near the surface of the Earth. The rocks can change their forms and alter to new compositions in the process. It breaks down the rocks that are either stationary or moving.

10. What are types of mass wasting?

Ans. **Mass wasting and its types**

**Fall:** this type of mass wasting occurs when the material undergoes free-fall or recoils down a cliff.

**Flow:** when the debris downslopes with viscosity. Mud is a flowing mixture of debris and water, usually moving downwards.

**Slump:** amovement of regolith or debris in a long curved surface, the lower part moving upwards and the upper part downwards.

**Slide:** slide is the relatively coherent rock mass moving around one or more well-defined surfaces. Rock-slide can also be referred to the rapid sliding of rock bed along an inclined surface whereas a rock avalanche is a rapid turbulent movement of broken up bed rock mass.

### **Extended Teaching:**

**Net Extra:** Guide your students about how to use Net Extra for better understanding of the lesson and also to find out meaning of difficult words.

**Support Material:** Learn more about 'The Physical State of Earth' by visiting the following links on the web:

<https://www.youtube.com/watch?v=uLpXju5QsKU>

<https://www.youtube.com/watch?v=NAHY6965o08>

## **Chapter 2: Atmosphere of the Earth**

### **Lesson Objectives:**

Students will be able to:

1. Describe the Atmosphere of the Earth.
2. Describe the Composition of the Atmosphere
3. Discuss the significance of important gases for life on Earth.
4. Describe the Layered Structure of the Atmosphere.
5. Identity the basic characteristics of each Layer of the Atmosphere.
6. Differentiate between Weather and Climate,



7. Describe the climatic change over the Earth's surface.
8. Explain the significance of Ozone as a shield layer.
9. Discuss the causes and implications of Ozone Depletion.
10. List measures that can be taken to overcome the problem of Ozone Depletion.

**Lesson Starters:**

The atmosphere may be fairly new topic for the students, so the first day's discussions and brief demonstrations provide an opportunity to gauge their incoming knowledge. This will help teachers identify any common misconceptions to address by the end of the curriculum.

A demonstration with ice water and associated discussion will help students review three states of matter—solid, liquid, and gas—and examples of how the transfer of heat energy can cause transitions between these states. Students should then begin to think of the atmosphere around them as a mixture of gases. How do we know that air actually exists—that what surrounds us is not just empty space?

Inflating a balloon and discussing how they perceive the air with their senses will help students explore this question. Teachers will also introduce the various measuring tools to the class, explain how they work, and organize students into teams for the measurements. Students should leave with a sense of wonder about the atmosphere around them and motivated to learn more about its importance

**Teaching Strategies:**

Teachers can make use of inquiry approach to stimulate discussion regarding atmosphere. Give students the chance to speak what they think causes change in the 'air' around them. Questions like 'Do you see any colour or odor in the air' 'What do you think causes that colour or odor' may help.

Chapter reading should also involve clearing of following misconceptions regarding atmosphere:

- air has no weight, color, or odor and is in effect invisible and inconsequential

*Air has weight, color, and odor as well as densities. Air contains matter and has mass and impacts our climate and weather.*

- the land does not transfer energy to the air



*The land transfers energy that is radiated from the sun. This energy is absorbed by molecules within the gases of the Earth's atmosphere.*

- the temperature of the air is not affected by the surface of the Earth beneath it

*The temperature of the air is impacted by the surface of the Earth. Thermal radiation is absorbed by the Earth's atmospheric greenhouse gases.*

- the air around the Earth is mainly warmed by energy transferred directly by sunlight

The Earth's atmosphere traps solar radiation and emits infrared radiation from the Earth's surface.

- air temperature does not depend on height above sea level

*As air warms, the molecules expand and it rises.*

### **Answer to Comprehension Assessment:**

1. Is climate the same thing as weather?

Ans. Weather is the day-to-day state of the atmosphere and its short term variation in minutes to week. The weather is severally termed as the combination of temperature, humidity, precipitation, cloudiness, visibility and wind.

Climate is the weather of a place averaged over a period of time, often over a span of 30 years. Climate information include statistic weather information.

2. What would happen if there was no Ozone Layer?

Ans. The sun sends out many different types of rays to all the planets. Some of these rays are useful while others can damage us. Ultra-violet (UV) rays are harmful to us. The ozone layer is present in the stratosphere. It absorbs UV rays and the resulting heat gives the stratosphere a constant temperature.

The ozone layer is only 3 to 5 mm thick but plays an essential part in protecting life on earth from UV rays.

3. Describe Temperature Inversion in the atmosphere. What, do you think, makes such an inversion happen?

Ans. When a layer of warm air comes right above a layer of cool air or vice versa, then this phenomenon in the atmosphere is known as temperature inversion.

### **Extended Teaching:**

**Net Extra:** Guide your students about how to use Net Extra for better understanding of the lesson and also to find out meaning of difficult words.

**Support Material:** Learn more about 'Atmosphere of the Earth' by visiting the following links on the web:

<http://www.space.com/17683-earth-atmosphere.html>

### Chapter 3: The Effect of Atmospheric Pressure

#### Lesson Objectives:

Students will be able to:

1. Explain Air Pressure.
2. Describe how Air Pressure decreases with increasing height.
3. Describe the relationship between Temperature and Air Pressure.
4. Discuss Air Pressure Belts on the Globe.
5. Explain the circulation of Winds (Permanent, Seasonal and Local winds).
6. Describe Cyclones, their types, movement and distribution.

#### Lesson Starters:

Now that students have a basic knowledge of the physical structure of the atmosphere, this lesson goes into much further detail about the most common gases that make up the atmosphere. Ask students why they cannot see the air around them. Then, ask them to describe experiences that they have had that demonstrate that air exists. For example, blowing warm air on a mirror (warm air condenses onto cool surface), seeing wind turn a pinwheel or windmill, blowing bubbles underwater, etc.

#### Teaching Strategies:

Teachers must emphasize on the importance of atmosphere as a means to sustain life on earth. Explain to your students that Earth's atmosphere protects us from things like meteors in space. It also absorbs most of the sun's intense ultraviolet light, while letting most of the visible sunlight pass through. It keeps us from getting too hot during a summer day and too cold on a winter night. Without the atmosphere's greenhouse gases trapping in Earth's warmth, virtually the entire planet's surface.

Differences in temperature are the driving force behind wind, or moving air. A classic example of how temperature differences cause the wind to blow is the sea breeze. On summer days near the coast, the land warms faster than the sea. This creates a wind circulation pattern in which near the ground the winds blow from sea to land. At night, a "land breeze" may blow in the opposite direction as the land cools more quickly than the sea.

Teachers must stress on greenhouse effect and its relationship with human activity. The greenhouse gases include: carbon dioxide, methane, and water. Greenhouse gases trap heat and are required to heat the Earth's atmosphere and to sustain life. The greenhouse effect is a natural and important process to insulate our planet. Over time, the burning of fossil fuels has caused more carbon to be released in the atmosphere trapping more heat. Humans have NOT created the greenhouse effect.

#### **Answer to Comprehension Assessment:**

1. How is Pressure defined? How is air pressure expressed mathematically?

Ans. Pressure is an expression of force exerted on a surface unit per area. The atmosphere around us is a deep ocean of air stretching hundreds of kilometers above us. We live at the bottom of an ocean of air. Gravity pulls on this huge mass of layers of gas, creating pressure. The pressure is greatest at the bottom: the earth's surface - the level where we live.

2. What happens to pressure as you go higher into the atmosphere?

Ans. Air pressure decreases as you go up into the atmosphere, away from the earth's surface.

3. How does temperature of a gas affect the pressure found in the gas?

Ans. The more the pressure, the more the temperature will be as both are directly related.

4. Briefly describe the major Air Pressure Belts over the Earth.

Ans. There is a pattern of high and low pressure belts over the earth. There are some factors which cause these pressure belts to occur. The earth is similar to a sphere, though not a perfect sphere. Yet this shape does not allow all parts of the earth to receive equal heat from the sun. In places falling on the Equator, warm air gets lighter and rises. This leaves a low pressure area behind. On the North and South Poles, air is cold and sinks down in the atmosphere bringing high pressure. As one moves from Polar regions towards the Equator, one comes in the sub-polar areas, almost 60 to 65 degrees north and south of the



Equator. Here the rotation of the globe pushes a bulk of winds towards the Equator, where they feed the low pressure area by warming up and going high. Come take a look at the four major pressure belts of the earth. But we must keep in mind that these belts are not continuous. Since the earth's surface is both land and water, both get heated in different ways.

5. What do you understand by Humidity?

Ans. Humidity is percentage of water vapours in the air. The more water vapour there will be in the air, the more humid the air will become.

### Extended Teaching:

**Net Extra:** Guide your students about how to use Net Extra for better understanding of the lesson and also to find out meaning of difficult words.

**Support Material:** Learn more about '**The Effect of Atmospheric Pressure**' by visiting the following links on the web:

<http://study.com/academy/lesson/atmospheric-pressure-definition-effects-quiz.html>

<http://www.captography.com/new/physics/physical-methods-of-co2-measurement?id=127>

## Chapter 4: Agriculture in Pakistan

### Lesson Objectives:

Students will be able to:

1. Discuss the importance of Agriculture as an economic activity.
2. Describe major types of Farming
  - a. Subsistence Agriculture
  - b. Intensive Agriculture
  - c. Extensive Agriculture
  - d. Commercial Agriculture
  - e. Plantation
  - f. Truck Farming
  - g. Mixed Farming
  - h. Cereal Crops



3. Describe salient features of irrigated and rain-fed Agriculture in Pakistan and Farming practices in mountainous areas.
4. Describe the distribution of Major Crops in Pakistan and the factors of their distribution.
5. Analyze major Agricultural problems of Pakistan.
6. Describe the Irrigation System of Pakistan and problems associated with Canal Irrigation

**Lesson Starters:**

First, recall that agriculture is one of the three main sectors of an economy. The first one is related to farming which is as old as human society, second one is related to industries which is the outcome of 17<sup>th</sup> century industrial revolution and third one is concerned with the services. In this chapter, we focus mainly on how agriculture is shaped in Pakistan, what methods of farming do we use, the varieties of crops which are sown and grown, and the various types of irrigation and fertilizers which are used in producing our crops.

**Teaching Strategies:**

Most of the students of the class have not experienced rural life, let alone farming. As city dwellers, it may be difficult to understand the concepts of farming and agriculture. Teachers are therefore expected to use a set of multimedia skills explaining such concepts through pictures, movies, documentaries, presentations and activities make it easy and explicable.

An easier teaching strategy is to ask students to inquire how vegetables and fruits end up in their homes. As they trace the origin to the farms, they might be interested in learning how farmers employ various techniques for crop production. Alternatively, ask students to map out a story based on a 'day in farmer's life'. You may ask open end questions for discussions such as:

- Which types of crops would you be interested in growing if you were a farmer?
- How would you manage the adverse conditions of weather which may impact your crops?
- Would you look out for more productive seeds and fertilizers to help boost your crop production?
- What machines you may use in farms for seed sowing, land leveling, pesticides spraying etc.?

The purpose here is to make students as inquisitive and curious as possible. As citizens of Pakistan, they must develop a clear understanding of the immense role of farming in Pakistan. As an additional information, you may mention that about half of the labour force of Pakistan earns its livelihood from agriculture i.e. every second Pakistani worker is directly or indirectly related to agriculture activities of some sort.

### **Answer to Comprehension Assessment:**

1. How, do you think, raising livestock helps in the agriculture business?
  - A. Raising livestock is one of the most important activities on a farm. It helps farmers to make large earnings with relatively less effort than that required in growing crops. Livestock can also be raised on the land which is unsuitable for growing crops. This way, farmers can make most of their land and earn handsome business. Cattle is sometimes used as labour for farms i.e. farmers used bullock carts to level and plough lands.
2. Would Pakistani agriculture benefit if her lands depended less on rainfall for cultivation? If so, explain how.
  - A. Yes, Pakistan's agriculture will greatly benefit from land which is less dependent on rainfall. This is because rainfall is largely unpredictable and can even be harmful for crops if it occurs in large quantities.
3. Describe the nature of farming as it is practiced in the mountainous Pakistani North.
 

Ans. Farming practices in mountainous regions of Pakistan Climate The climate to the north of Pakistan is quite cold. There is heavy snowfall during winters. Most of the terrain in these places is mountainous. The growing season is short because of weather and soil conditions.

### **How is Farming done there?**

Farmers in these areas usually follow a method called Terrace Farming. Steps are cut into steep hills and the edges are bordered with stone. This keeps water and soil from washing away. A large number of subsistence farmers can be found in these places

### **Extended Teaching:**

**Net Extra:** Guide your students about how to use Net Extra for better understanding of the lesson and also to find out meaning of difficult words.

**Support Material:** Learn more about 'Agriculture in Pakistan' by visiting the following links on the web:

<http://www.pakissan.com/english/allabout/crop/index.shtml>

<http://kids.britannica.com/comptons/article-206080/Pakistan>

## Chapter 5: Mining, Power and Industry

### Lesson Objectives:

Students will be able to:

1. Describe the salient features of Mining as an Extractive Industry.
2. List important conditions for Mining.
3. Discuss the role of Minerals and Power Resources in the economy of a country.
4. Describe types of Mining.
5. Discuss the distribution of major Minerals in Pakistan.
6. Describe the Power Resources of Pakistan.

### Lesson Starters:

Your students are already aware about the importance of plants and animals. This chapter, however, deals with the third most important component of our everyday use: Minerals. Explain to your students that although plants and animals have incomparable importance to support life on earth, our present-day needs cannot be met without minerals, which are substances occurring naturally under Earth's crust. Hence, minerals, like plants and animals, are our natural resources. They are mined so that we can have all of the products we're used to using. Even though over 99 percent of the Earth's surface has never been mined, it's important to remember that minerals exist in limited supply. We should be aware of what products they provide us with and use our mineral resources wisely.

### Teaching Strategies:

The foremost activity here is to locate minerals on a map. Task students to identify regions where minerals are found in Pakistan. You can assign specific minerals from the list to pairs or groups of students and have them locate major mineral-producing areas by placing dots on the map.





Talk about the mineral products in the classroom. Chalk is a mineral, so is the metal in desks and glass in windows. Pencil "lead" is actually graphite. What other mineral products are there in the classroom?

As a lesson reinforcement, you can also task students to do some research on the variety of minerals found in products they use. Here is a list of such products and possibly used minerals in them.

Batteries: Antimony, Cadmium, Lead, Zinc

Bicycle: Aluminum, Clay, Diatomite, Mica, Sulfur, Selenium, Wollastonite, Zinc

Books: Clay, Limestone, Sodium Sulfate, Feldspar

Cosmetics: Iron, Silica, Limestone, Talc

Pencils: Graphite, Clays

Plastic: Limestone, Wollastonite, Coal, Talc, Silica, Petroleum Products

Window: Feldspar, Irona, Silica, Trona

### Answer to Comprehension Assessment:

1. Define the following terms

Ans. 1. Mining:

Natural Resources are found both above and under the ground. The extraction of metals, minerals and fossil fuel from the earth is called Mining.

Mining has not only helped in the survival of human race but also played a pivotal role in empowering the economy as it brings investment, and provides numerous opportunities of employment. It also give rise to a number of industries which inflates empowerment. It plays an important role in building an economy.

2. Metal ore:

An ore is a special type of rock mass that contains elements and minerals in combinations. They can be separated from each other through chemical processes. Metals usually exist as ores and are extracted through mining. They are then refined and the elements are extracted.

3. Fossil Fuels:

A variety of products are derived from petroleum like plastic, petrol, diesel, kerosene oil, natural gas and other lubricants. It has utilization in transportation, power plants,





synthetic textiles, fertilizers and chemical industries. Most of the world's energy is generated from these fossil fuels.

natural resources,

4 Natural resources:

Everything that was not made by man is a **natural resource like** lakes and rivers, oceans and seas, trees, animals, rocks, minerals etc. Natural resources come in many forms. It may be a solid, liquid or gas, metallic or non-metallic etc. We can use the natural resources directly or indirectly.

2. What are different types of mining?

Ans. **TYPES OF MINING:**

As soon as the access roads are constructed and site clearing is done the mining processes are initiated on the field.

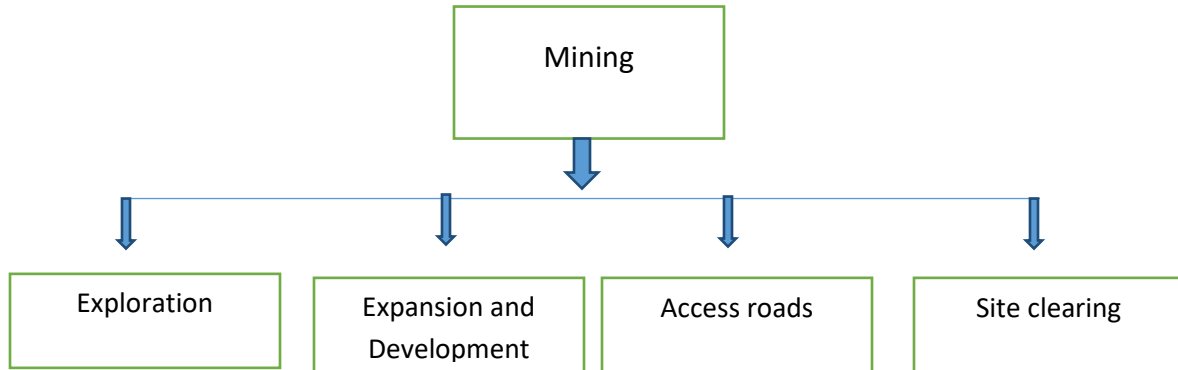
**Active mining:** All active mining share a common trait: the extraction and concentration of metal ore from earth. Usually, metallic ores are buried under a layer of ordinary rock or soil known as waste rock or over burden that is removed to get the access to metallic ore deposits.

**Open-pit mining:** this type of mining is done when the ore deposits are deep in the earth. It requires the removal of several layers of waste rock from the ore deposits. It also requires clear deforestation or migration of communities above the ore deposits which require loads of heavy machinery like bulldozers, cranes, dump trucks etc. Since the ore deposits are deep below the ground level the mines are dug much below the ground water table. It is also known as one of the most ecologically destructive types of mining.

**Placer mining:** it is used to dissociate the desired metal from the sediment in a stream bed or floodplain. It is usually used to remove gold from stream sediments through bulldozers, dredges and hydraulic jets of water. It also cause damage to the environment as it releasing large quantities of sediment that can impact surface water for several miles head of placer mine.

3. What are different phases involved in mining? Draw a flow chart to illustrate the phases involved in mining.

4.



5. Make a mineral map of Pakistan.

A. Refer to the table given on textbook page no. 36 for map information.

6. What is industry? What are important factors for the industrial setup?

Ans. industry can be defined as an economic activity concerned with the processing of raw materials and manufacturing of goods in factories.

For e.g. Iron Ore is a raw material extracted through mining. It is then refined and used in the manufacturing of steel. Because of its great tensile strength steel is used as an essential component in many industries like construction, automobiles, surgical instruments, machinery etc.

#### **Important factors for the industrial setup**

1. Availability of Raw Materials
2. Power
3. Labour
4. Transport
5. Market
6. Site

7. Write in detail about the important industries of Pakistan.

Ans. **Textile Industry**

It is also the largest industry of Pakistan. At the time of partition Pakistan only received 17 textile producing units. The production was also of a very low grade. Now Pakistan is producing the world's best cotton and the producer of world's finest textiles. Various steps have been taken by the Government for the development of the textile industry e.g.

the provision of incentives technical assistance, directly financing institutions and improvements in management and labor efficiency etc.

### **Edible oils**

There are 150 vegetable ghee and cooking oil factories in Pakistan. Out of these 26 are in the public sector with an installed capacity of 500 thousand tons of ghee and cooking oil. A large quantity of cooking oil is imported to meet the domestic needs.

### **Sugar Industry**

In 1947, there were only 2 sugar factories in Pakistan, but at present, there are 77 sugar factories in the industry. Radical steps are required to expand the working capacity of this industry, which must be expanded and facilities should be provided to farmers for the production of better crops.

### **Fertilizer Industry**

There are 10 fertilizer units in the country. The low production was caused, by operational difficulties, decline in working hours and power failure/load shedding. A number of concessions are provided for the growth of this industry.

### **Chemical Industry**

There are 12 chemical factories in the country producing, soda ash, sulphuric acid, caustic soda, chlorine gas and other chemicals. The contribution of the chemical industry towards GNP is only 3%. This industry is not fulfilling domestic requirements, so a large amount of foreign exchange is spent on the import of different chemicals every year.

### **Engineering Goods Industry**

The engineering goods and capital goods produced domestically are very helpful for economic development of a country. This industry was given importance in the 3rd five year plan. We have 3 heavy engineering industries.

Heavy Mechanical Complex, Taxila

Pakistan Machine Tools Factory, Landhi

Pakistan Steel Mills, Karachi

All these are in the public sector. There are also a number of light and medium engineering goods industries producing a lot of items.

### **Tobacco Industry**

At present 22 factories are producing cigarettes and Beeri. Our country is self-sufficient in the production of cigarettes. The raw tobacco used in the manufacturing of cigarettes is produced domestically.

### **SMALL SCALE / COTTAGE INDUSTRIES**

The small scale or cottage industry is an industry made from people who are working on a small setup usually at home. In Pakistan the cottage industry plays an important role in the rural areas.

There is a great demand of hand woven carpets, embroidered work, bangles, rugs and pottery. A large population in the rural area is associated with the cottage industry for their survival. The produces are also considered important export items and are in valued worldwide.

8. What is meant by cottage industry?

Ans. **SMALL SCALE / COTTAGE INDUSTRIES**

The small scale or cottage industry is an industry made from people who are working on a small setup usually at home. In Pakistan the cottage industry plays an important role in the rural areas.

There is a great demand of hand woven carpets, embroidered work, bangles, rugs and pottery. A large population in the rural area is associated with the cottage industry for their survival. The produces are also considered important export items and are in valued worldwide

### **Extended Teaching:**

**Net Extra:** Guide your students about how to use Net Extra for better understanding of the lesson and also to find out meaning of difficult words.

**Support Material:** Learn more about '**Agriculture in Pakistan**' by visiting the following links on the web:

<http://www.eschooltoday.com/natural-resources/what-is-a-natural-resource.html>

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## Chapter 6: Trade and Transport

### Lesson Objectives:

Students will be able to:

1. Enlist and discuss different types of Trade.
2. Analyze major factors that affect International Trade,
3. Identify International Trade Partners of Pakistan with reference to its major items of Exports and Imports
4. Discuss modes of Transport (Road, Water and Air) and their characteristics
5. Describe Road, Railway Transport Networks of Pakistan.
6. Discuss the importance of Transportation Network (Social, Economic, Geographical)

### Lesson Starters:

You can begin the lesson with a small activity called 'Exchange'. Students will demonstrate the process of bartering by exchanging with each other an item of small value. For example, a child may exchange an item of stationary (eraser, ruler, pen etc.) with another child if both agree on their exchange. As children exchange, the teacher facilitates on determination on the fair value and exchange agreement. Once stimulated with the idea of exchange, explain to the class that trade is just a form of 'exchange' except for the matter that people use 'money' as a means of transferring value to one another. However, exchange may also be possible without money through the system of 'barter', the type of exchange with the students just experimented.

### Teaching Strategies:

Teachers must help students to connect their observations regarding trade in real life. For example, teachers may ask students to classify supermarkets as wholesalers or retailers.

Next, the teachers may task the students to picture the cycle of trade. Ask your students if they know how retailers and wholesalers get their supply of goods. They must be able to identify some of the trade cycle components such as transportation and storage.

To explain the concept of external trade, the teacher is expected to expand the idea of 'exchange' to international level. That is, external trade refers to buying and selling between citizens of different countries.

It is important to explain the concept of trade cycle at this stage. Your students must be clear with the idea of different phases of trade: Procurement of minerals and materials by companies/factories, manufacturing of items, storage and warehousing, insurance and banking, distributors, wholesalers and retailers. Ensure that your students know that transportation networks such as roads, railways and airways are vital to carry out trading activities in any scale.

### Answer to Comprehension Assessment:

1. Explain the features of internal trade in a country.

Ans. Internal trade is also known as home trade. Such trading happens within a country's boundaries. Internal trade can be further sub-divided into two groups:

1. Wholesale

Trade It means buying in large quantities from producers and selling as portions to retailers who resell it to consumers. The wholesaler is the link between producer and retailer. Producers and retailers depend upon wholesalers so they have an important part in the supply chain of a product.

2. Retail Trade

It means buying in smaller quantities from the wholesalers and selling as very small portions to consumers to be used personally. The retailers stand at the last point in the chain of distribution. They make a link between wholesalers and consumers. Retailers can range from small to large ones. Small-scale retailers include hawkers, pedlars, general stores etc.

2. Does the politics of a country matter to her international trade? If so, how.

Ans. Political factors Political dynamism and political stability inside a country is a big reason for her to expand or shrink in international trade. Iraq's oil exports fell sharply after the Gulf War. A politically communist China adopted a policy of opening her trade to the outside world since the late 1970s and, to her benefit, it made foreign trade develop quickly.

3. What is the difference between a motorway and a national highway in Pakistan?

**Motorways** Pakistani motorways form part of the National Trade Corridor Project. This project was planned in 1990. The three Arabian seaports lying in the country's south are

going to be connected by this project to the rest of the country. These seaports are Gwadar port, Port Qasim and Karachi Port. Broad motorways and national highways will form the connection and further link these ports with Central Asia, Afghanistan and China

The motorways open for transport at the moment are as follows:

1. The Peshawar to Islamabad motorway M-1
2. The Islamabad to Lahore motorway M-2
3. The Karachi Northern Bypass or motorway M-10

**National Highways** There is a much larger number of Pakistani national highways open for transport at the moment. The most recognized national highways are: 1. The Makran Coastal Highway. It follows the coast of Sindh and Balochistan provinces connecting the port cities of Karachi and Gwadar. 2. The Karakoram Highway. It is the longest paved international road in the world. It connects China with Pakistan across the Karakoram mountain range and through the Khunjerab Pass. 3. The Grand Trunk Road (commonly abbreviated to GT Road). It is one of South Asia's oldest and longest roads. For several centuries, it has connected the eastern and western regions of South Asia. It runs from western Bengal, across north India into Peshawar. 4. The Silk Road is an extensive interconnected network of trade routes across Asia. It connects East, South and Western Asia with the Mediterranean world, including North Africa and Europe. In Pakistan it passes through the cities of Peshawar, Taxila and Multan. There are many other National Highways as well like: 1. The Hyderabad to Khokhrapar N-120 2. The Larkana to Moen-jo-Daro N-155 3. The Indus Highway also called National Highway itself in everyday language. It is the N-55 and connects Karachi all the way to Peshawar via Dera Ghazi Khan.

4. Why is air transport the most convenient mode of travel for passengers?

Ans. Air is the fastest but least utilised mode of transportation. The biggest advantage of airfreight lies in the speed with which a shipment can be transported. Air shipment can be done in hours while the other modes of transportation take days and months. It is the

most expensive transportation mode. It is the best choice for long-distance passenger travel and for the transportation of high-value cargo because it is fast

### Extended Teaching:

**Net Extra:** Guide your students about how to use Net Extra for better understanding of the lesson and also to find out meaning of difficult words.

**Support Material:** Learn more about agriculture by visiting the following link on the web:

<https://www.youtube.com/watch?v=oueRN6VfVq0>

## Chapter 7: The Foundation of Muslim Rule

### Lesson Objectives:

Students will be able to:

1. Identify the factors which contributed to the conquest of India by Babur.
2. Discuss the Rajput-Afghan challenge and Babur's response.
3. Discuss the Afghan challenge to Humayun, his exile and return
4. Discuss the rise of Sher Shah Sun to power and the consolidation of his rule
5. Identify the Suris' contribution to the administrative structure, communication network and public welfare institutions
6. Discuss Sher Shah Sun's successors and their downfall.
7. Discuss Akbar's role in the imperial expansion and consolidation of the Mughal Empire. Identify Akbar's administrative measures and reforms Mansabdari system, religious and Rajput policies.  
Discuss Akbar's incursions into the South and its legacy to his successors.
8. Evaluate Jahangir and NurJahan as the cultural metaphor of the age: poetry, miniature, painting, music, sartorial and culinary taste, etc.
9. Explain why Shah Jahan's reign is considered the Golden Age.
10. Discuss the various stages and problems during Aurangzeb's reign.

### Lesson Starters:

Book 5 of this series have already introduced the concept of Muslim's rule in the sub-continent. The chapters that follow provide detailed descriptions of the various dynasties that ruled South



Asia. Hence, brainstorming for this lesson involves discussion about the conditions of this region that led to eventual conquest of Arabs. As a starter, ensure that students understand the specific time in which Arabs invaded the territories of Sindh and Multan i.e. the 8<sup>th</sup> century. It should be noted that while the locals were pre-dominantly Hindus, Muslim invasion was not refuted because of gentle treatment of the new rulers. The rulers did not gallantly captured the territories; and locals mainly converted to Islam in an attempt to do away with the Hindu caste system.

### Teaching Strategies:

Story-telling is the best way to lecture lessons based on history. Once you've laid down the basis of Muslim's entry into the sub-continent, you can easily move on to explaining the various different reigns that followed, including the reign of Babur, Sher Shah Suri, Akbar, Jahangir, Aurangzeb and Shah Jehan. Emphasis need to be keep on socio-economic development made by these Muslim rulers, such as development of Art and Architecture, introduction of unified 'Hindustani' language, governmental structure of Mughals and so on. However, the dark sides of the dynasty rule must also be discussed: fierce fights for the throne, high centralization of power in Delhi, and recurring revolts by Sikhs, Rajputs and Afghans.

### Answer to Comprehension Assessment:

1. Who was Babur when he invaded India?

Ans. The ruler with whom the Moghul period begins is Zaheer-ud-Deen Babur. He defeated the power of the Lodhi Sultanate at Delhi in 1526 CE. It was the failure of IbraheemLodhi, the then Sultan, in the First Battle of Panipat that allowed Babur to found the Indian Moghul Empire.

2. In your opinion, which factors led to the decline of Lodhi rule and helped Babur conquer the Delhi Sultanate?

Ans. The treasury of the Delhi Sultanate was used up and many important trade routes were not being used anymore

Deccan Plateau had crashed in the late fifteenth century.

Trade had dropped by a large margin for the Lodhi Dynasty and it was going through internal conflicts

Furthermore the clever war tactics that Babur used to win this war. These were:

The “Tulughma” (dividing the whole army into various units)

The “Araba” (arranged the army in rows facing the enemy)

3. What challenges did Babur face in establishing his rule after he had conquered India?

Ans. A year after Zaheer-ud-din Babur defeated Ibrahim Lodhi when he came face to face with the Rajput-Afghan forces in 1527 CE. This happened in the Battle of Khanwa. Khanwa or Khanua is a village sixty kilometres west of the city of Agra and about forty kilometres away from Delhi.

4. What in your opinion were the weaknesses which RaanaSanga had that led an invader to succeed in his conquest of India?

Ans. Babur's soldiers went through a spiritless phase where they felt discouraged and disheartened because of the size and strength of the opposing forces. They were far greater in number. But Babur put his diplomatic skills to good use. He had been brilliant at sustaining the morale of his men in times like this. He delivered a speech to his army which helped them hold on to their courage and boosted their will. And again the Mughal forces' use of artillery set them at an unusual advantage in the battlefield. There are several characteristics that RaanaSanga lacked compared to Babur which were a main reason for his deadly defeat in the Battle of Khanwa.

5. Considering that both were deadly enemies, do you see any connection between what Sher Shah Suri did and what the later Moghuls did?

Ans. In Sher Shah's period a road was built to connect Sonargaon, today in Bangladesh with Attock near present-day Rawalpindi. It was the first attempt at bringing the economy of Bengal into closer contact with that of Northern India. The later Mughal emperor Akber took this idea of a transport network further. So by year 1600 CE, links had been established between different Indian states based upon routes first started by Sher Shah Suri. Emperor Akber even followed his administrative manual (zawaabit) for fifty years and did not discontinue them.

### Extended Teaching:

**Net Extra:** Guide your students about how to use Net Extra for better understanding of the lesson and also to find out meaning of difficult words.



**Support Material:** Learn more about 'The Physical State of Earth' by visiting the following links on the web:

<http://www.historydiscussion.net/history-of-india/muslim-rule/foundation-of-muslim-rule-in-india/6198>

## Chapter 8: Consolidation of the Mughal Empire

### Lesson Objectives:

Students will be able to:

1. Discuss Akbar's role in the imperial expansion and consolidation of the Mughal Empire.
2. Identify Akbar's administrative measures and reforms Mansabdari system, religious and Rajput policies.
3. Discuss Akbar's incursions into the South and its legacy to his successors.
4. Evaluate Jahangir and NurJahan as the cultural metaphor of the age: poetry, miniature, painting, music, sartorial and culinary taste, etc.
5. Explain why Shah Jahan's reign is considered the Golden Age.
6. Highlight Shah Jahan's contribution to culture and architecture.
7. Discuss Shah Jahan's Central Asian Policy.
8. Analyse the course and the climax of the War of Succession.
9. Discuss the various stages and problems during Aurangzeb's reign.
10. Describe the consequences of the Deccan campaigns and the rise of the Marathas.
11. Discuss Aurangzeb's Religious policy and its consequences.
12. Assess the place of Aurangzeb in the medieval Indian history.
13. Discuss Aurangzeb's Religious policy and its consequences.

### Lesson Starters:

Brainstorming may involve student discussion regarding the nature of Mughal rule, especially that of Akbar. Task students with a case presentation in which they are to provide solutions to the problems they would have faced if they were Akbar. Ask specific questions like:

- i. What would you do to solve the problem of Muslim-Hindu conflict?
- ii. How would you make sure that there is no uprising against the Mughal throne?

- iii. Would you allow anyone to force religious beliefs? Would Muslims and Hindus be allowed to marry? Will Hindus be protected like Muslims?
- iv. How would you ensure that Mughal have inclusive armed forces i.e. the army comprises of both Hindus and Muslims?

### Teaching Strategies:

The story telling style coupled with classroom discussion is advised. Chapter reading may also be supplemented with additional facts related to Mughals, such as their cuisine and poetry, their court and Qazi system, their clothing and lifestyle and so on.

Once done with chapter reading and explanation, you can task students to do a form of role play in which they act as if they were various Mughal emperors. They discuss with each other matters of government, such as making new laws or revising old ones, increasing harmony among the different classes, spreading education and literacy, dealing with other countries, appointing local government officials etc.

### Answer to Comprehension Assessment:

1. What makes Akber's government stand out from governments run by other Moghul Emperors?

Ans. For consolidation of Mughal empire took many steps:

1. In 1562, Akbar married to a Rajput princess to form a strong association between the Mughal Empire and the Rajputs and the conquest of Merta in Rajasthan.
  2. In 1563, the pilgrim tax was abolished.
  3. In 1564, he abolished the jizyah
  4. Akbar also included many hindus in the official bureaucracy.
  5. He strengthened relations with the various kingdoms by marrying the daughters of the kings.
2. How important, do you think, was the Rajput Question when Moghuls were ruling India?
    - A. Winning over Hindu populations formed a major part of the administrative measures of Mughals. The Rajputs controlled a large part of Indian sub-continent when Mughals ruled India and they had never fully accepted Islamic rule, but ending the *jizyah* and the pilgrimage taxes helped calm their restlessness.



3. What kind of a lady was Noor Jehan?

Ans. She was his favourite wife. During the period from 1611 to 1627 she acted very influentially on the emperor and the administrative machinery. She understood the system well. Keen watchfulness and smart calculation were her major traits. Her patronage of music and the arts was famous. New architectural ideas were put into practice. Her influence on the artistic world was as strong as it was on the world of politics.

4. Would Jehangir have been less successful without Noor Jehan?

Ans. Yes because her role is very important during the empire of Jehnagir. She acted very influentially on the emperor and the administrative machinery because she understood the system well and has keen watchfulness and smart calculation. She even reached the position that allowed her to approve and sign laws of the empire. It can be said that her authority was such during Emperor Jehangir's time that she herself was an empress

5. Why did Aurangzeb have to face a large number of difficulties during his time as emperor? Do you think the conflict between him and the Marathas was based on religion or were there other reasons to fuel it?

Ans. Aurangzeb could not find a happy middle-ground with the Rajputs. In addition, the Deccan Wars with the Marathas severely affected Mughal resources. Aurangzeb's attack on Mewar and on Marwar (also known as Jodhpur in present day Rajasthan) broke the friendship between Agra and the Rajput princes. Further, losing Rajput support also worked negatively for the Mughuls in the Deccan Wars.

### Extended Teaching:

**Net Extra:** Guide your students about how to use Net Extra for better understanding of the lesson and also to find out meaning of difficult words.

**Support Material:** Learn more about Mughal Empire by visiting the following links on the web:

- <http://www.historyworld.net/wrldhis/PlainTextHistories.asp?historyid=ab99>
- <http://www.britannica.com/EBchecked/topic/396125/Mughal-dynasty>
- <http://asianhistory.about.com/od/india/p/mughalempireprof.htm>
- <http://www.aurangzeb.info/>

## Chapter 9: Society and Culture under Mughals

### Lesson Objectives:

Students will be able to:

1. Describe the religious policy of the Mughals with special reference to social and religious pluralism.
2. Briefly describe the salient features of the following: Bhakti, Din-i-I lahi and MujadidAlf Sani.
3. Describe the salient features of Sikhism.
4. Describe the socio-cultural synthesis and the transformation of the society under the Mughals.
5. Describe the development of the sciences, the arts, and the architecture under the Mughals.
6. Highlight the salient features of the education system under the Mughals.
7. Describe the central and provincial administrative system under the Mughals.
8. Emphasize the Mughal contribution towards the writing of history.

### Lesson Starters:

Brainstorm this chapter through question and answer session. Ask students if they could give ideas about how the sub-continent rulers after Aryans i.e. the Mughals were different. How would they think about the governance structure of the new state? Would they enforce Islam or they would try to mix up the different religions. Would they build better armies, better administrative systems, better educational policy etc.?

Remind students that Mughals, like Aryans were invaders from outside the South Asia. Like the previous invaders, they too would like to extend their empire and form their own unique system of government, own culture, religious practices, educational policies, military and judiciary and other areas of governance.

### Teaching Strategies:

This chapter traces the career of Akbar from becoming king at the age of thirteen, fighting the second Battle of Panipat and securing his throne, setting up his administration, his religious policy, second Battle of Panipat and securing his throne, setting up his administration, his religious policy.

Like most chapters in history, this particular lesson can also be taught using a time-line based, story-telling style. In addition to this, you can make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.

In this chapter, administrative structure of Akbar's reign is discussed. As a teaching activity, use flow chart or diagram to explain the administrative structure of Akbar's empire.

Students may also be encouraged to draw 'timelines' of periods or events of specific civilizations, dynastic rule to form a clearer picture of what is being studied.

### **Answer to Comprehension Assessment:**

1. How effective, do you think, can an educational policy, like that of Akber, be for society today? Would you say he was doing the right thing for his time?
  - A. Mughals were aware of the benefits of education. The success of Akber was in fact due to his educational reforms. There were primary and secondary schools in the Mughal educational system, with each primary school, or maktab as it was so called, was connected to a mosque of its own. Besides elementary reading and writing, these Maktab provided education of Arithmetic and Quran to their students. In addition to Maktab, secondary schools, or colleges, were established across the major cities of the Empire where Islamic theology, jurisprudence, logic and philosophy were taught. Lastly, institutes of higher education were also established where sciences of morals and agriculture were taught. In all, the educational policy of Akber relied heavily on social integration through (moral and intellectual development) and was fit for his time. However, it certainly lacked to provide students with teachings of the more advanced sciences like physical and medicine.
2. Would you say there are similarities between Sikh teachings and what we are taught by Islam?
  - A. There are similarities between Sikh and Islamic teachings. Both center on the beliefs in oneness of God and equality of human beings. Like Islam, the Sikh religion also teaches humility, compassion, truth and love and unconditional submission towards the will of God.
3. How did the Moghuls govern their empire?

Moghuls had a central administration for each province. The administration consisted of the mansabdari system, a type of military administration that ensured order in the huge and diverse empire. The mansabdars collected revenues in return for pay and had to supply the empire with soldiers and horses. Their positions were conferred by the emperor solely based on merit, and as they advanced, they were allowed to hold more and better *mansabs* (ranks). The peasants were taxed equally, with the state collecting one-third to one-half of their profits. The people paid





fewer taxes in the event of crop failure and were allowed to keep the excess in particularly productive years.

The highest officer in the Mughal Empire was the *wazir* (prime minister). Under him were the *diwan* (chief revenue officer), the *bakshi*, who handled the revenue system and recruited officers for the army and the administration, and various other ministers involved in, for instance, the administration of forests, news delivery, and auditing. Another important official under the *wazir* was the *sadr*, who appointed judges and awarded grants.

The empire was sectioned into *subas* (provinces), which were led by governors appointed by the emperor. In turn, the *subas* were divided into *parganas* (unions of several villages). Each *pargana* had a *shiqdar* (magistrate) and two officials, generally descendants of previous officials, who were in charge of collecting taxes.

### Extended Teaching:

**Net Extra:** Guide your students about how to use Net Extra for better understanding of the lesson and also to find out meaning of difficult words.

**Support Material:** Learn more about society and culture under Mughals at

<http://ic.galegroup.com/ic/whic/ReferenceDetailsPage/ReferenceDetailsWindow?zid=5215283bda44a65621d4bb2d757207b&action=2&catId=&documentId=GALE%7CCX3048600064&userGroupName=seat24826&jsid=5c180134cc8eb78b0beae3f193ae0146>

## Chapter 10: The Disintegration of Mughal Empire

### Lesson Objectives:

Students will be able to:

1. Narrate the causes and the course of the War of Succession leading to Bahadur Shah's ascendancy to power.
2. Describe the policy of Bahadur Shah towards the Jats, Rajputs and the Marhathas.
3. Analyse the rise of Sikh militarism and Jahandar Shah's response.
4. Discuss the role of Mughal nobility and their scramble for power during 1712-1739.
5. Discuss the rise of Kaihoras and Talpurs in Sindh  
Describe the background of Nadir Shah's invasion and its impact on Mughal imperial power.
6. Discuss the circumstances leading to the gradual breakdown of the Mughal administrative structure.
7. Critically examine the working of the central authority and the emergence of major kingdoms Bengal, Oudh and Hyderabad.

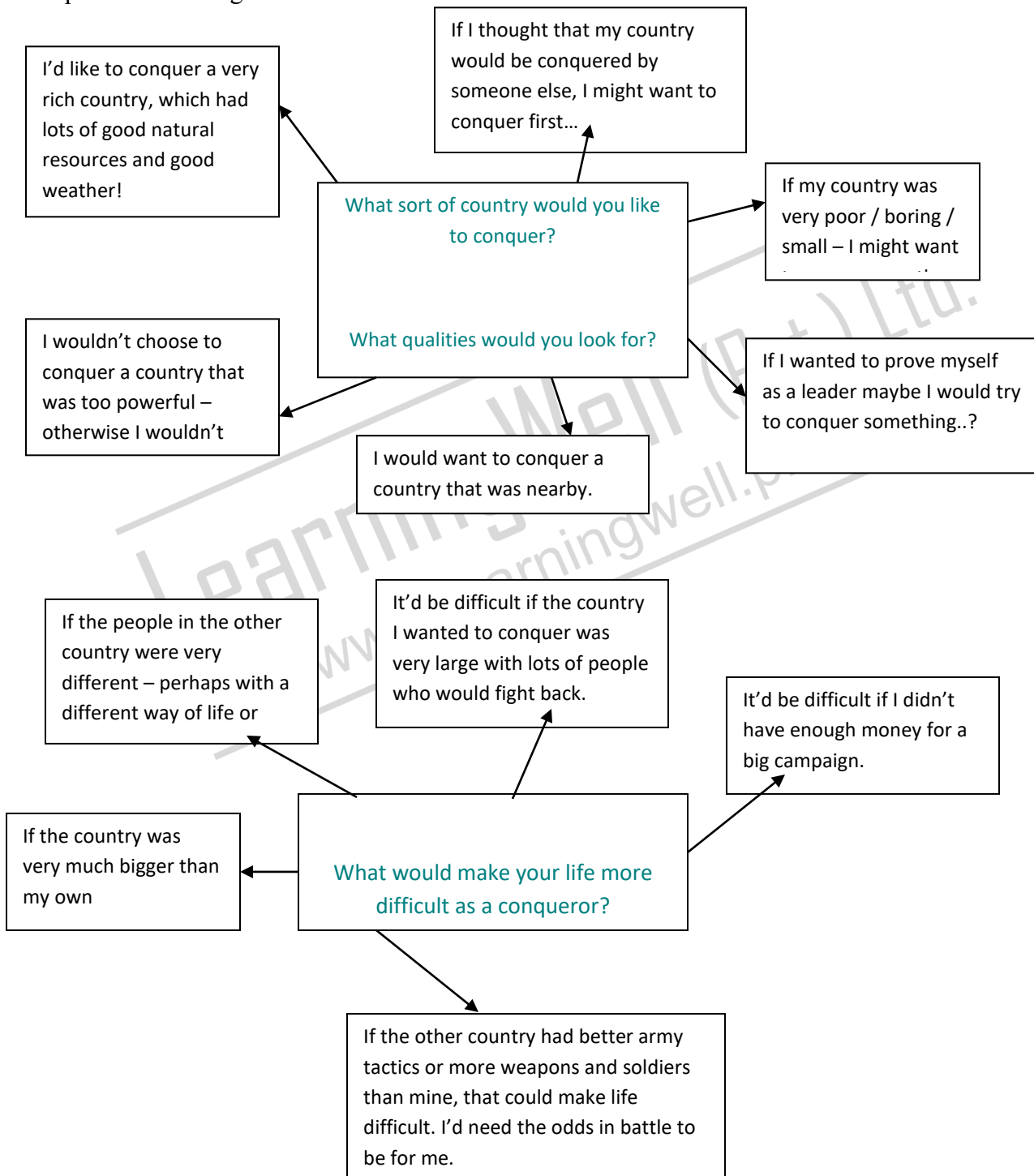




8. Trace out the background to the Battle of Plassey (1757) and the British rise to power in Bengal.
9. Discuss the socio-economic conditions of India during the later Mughal rule.
10. Discuss the struggle for supremacy amongst European in India.

**Lesson Starters:**

Could do this activity in groups on large sheets of paper, or as a whole class. Want to achieve points something like this:



**Teaching Strategies:**

The decline of the Mughal Empire began towards the end of Aurangzeb's reign. It took another 150 years after his death for the empire to come to an end with the war of 1857. The reasons were Aurangzeb's long absence from his capital, incompetent rulers who could not keep the empire together, an empty treasury, intrigues and power struggles among the court nobles, and an army that was too bulky when on the march.

The overall teaching strategy will therefore center on how the power of the Mughal emperors declined in the century after Aurangzeb until the British sacked their city, Delhi, in 1858 and the last Mughal emperor was exiled.

An important student activity in this lesson could be reason-by-reason analysis of the Mughal decline in South Asia. For this, you could task individual students to present their detailed explanation of the reason through a writing journal or speech. Each student will present the broad reason and then extend the analysis of the reason. The analysis may consist of the underlying economic, social and political reasons which gave fuel to that reason.

**Answer to Comprehension Assessment:**

1. Why did the Mughul Empire start to fade in the 18<sup>th</sup> century?

Ans. 1. Bloodshed before every new king:

The Mughals did not follow a law of succession. The cruel clashes that followed the death of each emperor created rifts from the start. Madly competing for the throne each time weakened the empire. Selfish officials and governors got their chances for trickeries against a dead emperor's sons and relatives. Invaders outside the empire could also use this mutual enmity to their advantage. Such wars of succession grew worse after Aurangzeb died.

2. Aurangzeb's Policies:

Aurangzeb did not see that only willing support by the people could make such a vast empire possible. Rajputs always had a crucial role in the government's strength. It was senseless to make enemies out of them. Wars with the Sikhs, the Marathas and the Rajputs only terribly upset the balance of the empire.

3. Ineffective rulers after Aurangzeb: Aurangzeb's successors lacked strategy and will. They were easily carried away by the divided interests of the nobles. As generals in war, they could not be tactful in dealing with uprisings.



4. Treasury in crisis: The exchequer is a very important department in any government. It is responsible for receiving and issuing funds of different kinds. A lot of burden came on the Mughal exchequer in Shah Jehan's time because of spending on monuments. Then it reached its limits during Aurangzeb's long wars in the south.

5. Invasions: Foreign invasions (like that of Nader Shah) drained the energies of the empire. It began to crumble because of them. These invasions were powerful enough to shake the empire to its core.

6. The huge size of the empire and regional challenges: It is hard to control large empires from a single center. New modes of administration are needed with changing size. Governing such a large empire as that of the Mughals after Aurangzeb had unique problems. It had many stakeholders. Only an original plan could include them all into useful participation. The rise of independent princely states in the absence of such a plan disintegrated the empire

## 2. How did the British manage to win the Battle of Plassey?

Ans. Now the British had to protect their business in Calcutta. The nawab of Bengal was in alliance with the French as well. He was not a Nawab who would side with British

This victory was very significant for the British in their race against the French. It also signalled their ripeness to take over many major parts of the Mughal Empire within the next century.

interests in the province so he would have to be replaced. Commander-in-chief of British India Robert Clive found who he was looking for in Mir Jafar, the nawab's commander. He agreed to pretend to be on the nawab's side in the battle and not attack the British infantry. He was promised to be made nawab in return. In the 1757 battle itself, the number of the nawab's men was far greater than British troops. During the battle, a rainstorm occurred and dampened the nawab's artillery. But British men managed to shelter theirs under tarpaulins. As the Bengali army charged on to their opponents, expecting their artillery to have been disabled too, they were caught off-guard, completely shaken and thrown off the field.

## 3. Why did Nader Shah attack India

Ans. At first Nader Shah wanted Muhammad Shah's help to establish his power in Afghanistan. He had asked him to shut Mughal border to the west. This was supposed to stop Afghan rebels from escaping into India. Nader Shah wanted to subdue these rebels. High officials in the Mughal government favoured Afghan rule against Persian rule in Kabul and Kandahar. Nader Shah was angered by Muhammad Shah's noncooperation.

He knew that though the Mughals were rich, they were militarily weak. The Afghans causing trouble to Nader Shah's plans kept fleeing into Mughal territory. When Agra and Delhi did not respond to the demand of returning the fugitive Afghans, Nader Shah made up his mind to ride into India

### Extended Teaching:

**Net Extra:** Guide your students about how to use Net Extra for better understanding of the lesson and also to find out meaning of difficult words.

**Support Material:** Learn more about 'Mughals' by visiting the following links on the web:

<http://www.historydiscussion.net/empires/late-mughals-and-disintegration-of-the-mughal-empire-in-india/598>

<http://www.historydiscussion.net/history-of-india/decline-of-the-mughal-empire-in-india/1529>

## Chapter 11: Sub-Continent Culture (712-1526)

### Lesson Objectives:

After completing this chapter, the students should be able to:

1. Identify the major Sufi saints/orders that helped in the development of Islam in South Asia: Baba Farid, Moinuddin Chisti, Bahauddin Zakariyya, Lal Shahbaz Qalandar and Nizamuddin Aulia.
2. Identify the benchmarks in the evolution of Indo-Muslim culture with particular reference to their contributions in arts, science and culture.
3. Describe the contribution of Delhi Sultans in the promotion of education.
4. Critically examine the administrative structure of the Delhi Sultanate.

### Lesson Starters:

By this time your students are already aware of the Muslim regime that had become prevalent after the Turkish-Arabic invasions in the subcontinent. You need to brainstorm the particular 'Muslim' culture that was introduced following these invasions. Ask students some brainstorming questions like the following:

'How do you think Muslims became popular with the locals?'

'Do you think there would still be riots among the newcomers and the old inhabitants?'



'Did some locals easily adopt new customs and religion brought forward by the Muslim invaders?'

### Teaching Strategies:

This lesson sets the understanding of Muslim foundation in South Asia. The popularity of Islam in this region mainly rests on the commitment of Muslim saints called Sufis.

Mystic interpretation of Islamic life within the bonds of religious orthodoxy is known as Sufism, which was initially launched by God fearing people of Perso-Arab world. They renounced the world and devoted themselves to His service.

As a teaching strategy, you need to build up mental schemas of each of the popular saint orders that developed in this region during the 11<sup>th</sup>, 12<sup>th</sup> and 13<sup>th</sup> centuries. Focus should be made on how saint's spread out Islamic teachings among the locals through their educational setups, madressahs and khanqahs.

You could show pictures of the shrines of the famous sufis discussed in this lesson. This will help students understand the widespread cultural dominance of these people which survives up to the present times.

Stress should also be made on how Delhi Sultans find Sufism as a lucrative tool to control, educate and politically manipulate the locals.

### Answer to Comprehension Assessment:

1. Who were Sufis? How did they help in spreading Islam in the sub-continent?
  - A. Sufis were preachers who travelled place to place and spread beliefs of divine spirituality, cosmic harmony, love, and humanity. The practice of Sufis, or Sufism, left a prevailing impact on religious, cultural, and social life in South Asia. Sufi scholars traveled all over continental Asia and greatly contributed in educational and social development of South Asia. Besides preaching in major cities and centers of intellectual thought, Sufis reached out to poor and marginalized rural communities and preached in local dialects such as Urdu, Sindhi, and Panjabi versus Persian, Turkish, and Arabic.
2. Write original names and periods of each of the following Sufis.
  - I. Data Ganj Bakhsh: Ali bin Usman Hujveri; lived during the 11<sup>th</sup> century
  - II. Gharib Nawaz: Moinuddin Chishti; lived during the 12<sup>th</sup> century
  - III. Baba Farid: Khwaja Fariduddin Masud; lived during 12<sup>th</sup> and 13<sup>th</sup> centuries
  - IV. Bahauddin Zakariyya: Abu Muhammad Bahauddin Zakariyya; lived during 12<sup>th</sup> century
  - V. Lal Shahbaz Qalandar: Syed Muhammad Usman Marwandi; lived during 12<sup>th</sup> and 13<sup>th</sup> century
  - VI. Nizamuddin Aulia: Nizamuddin Aulia; lived during 13<sup>th</sup> century
3. What were Sufi Khanqas? What purpose did they serve?
  - A. A khanqah is commonly defined as a hospice, lodge, community center, or dormitory ran by Sufis. Khanqahs were also known as Jama'at Khana, large gathering halls. Sufi khanqahs were meant to develop a close and fruitful relationship between the master-teacher (sheikh) and their

students. Students in khanqahs would pray, worship, study, and read works together. In addition to Islamic teachings, Sufi Khanqahs taught its students subjects like arts and literature.

4. How did Delhi Sultans help in promotion of education in South Asia?
- A. During the Delhi Sultanate, the intellectual caliber of India's residents increased greatly due to the Mongol invasions. Various intellectuals hailing from regions such as Iran, Afghanistan, and Central Asia began to enrich the cultural and literary life of the Delhi capital. During 901 - 1151, Delhi Sultans began to build numerous schools called madrasa that were attached and affiliated with masjids (mosques). This mass movement established stability in India's educational systems.

### Extended Teaching:

**Net Extra:** Guide your students about how to use Net Extra for better understanding of the lesson and also to find out meaning of difficult words.

**Support Material:** Learn more about Sufism in South Asia by visiting

<http://www.southasiaanalysis.org/paper924>

## Chapter 12: Rise of the British

### Lesson Objectives:

After completing this chapter, the students should be able to:

1. Describe Ahmed Shah Abadali's emergence in the Northern states of India, and discuss third battle of Panipat
2. Describe the establishment of Sikh Kingdom and Maratha constituency
3. Discuss the role of Muslim revivalist movements launched by saints like Shah Waliullah and Syed Ahmed Shaheed
4. Specify the aftermath of the Battle of Buxar
5. Furnish reasons for the crumbling of the Mughal Empire under the two last Mughal emperors: Akbar II and Bahadur Shah Zafar
6. Discuss the nature, causes and aftermath of the War of Independence 1857

### Lesson Starters:

Once again, the students need to be reminded of the slow, but gradual, penetration of South Asia's new invaders: the British. Explain to the students that although Mughals had captured large territories of India, there still remained large lands and states ruled by Hindu dynasty rulers of the time. There was always a space for new immigrants, particularly traders. The British therefore realized this opportunity to settle in areas where the kingdom rule was weak.

Ask students to generate ideas for the locations where early British traders would have settled. 'Did they chose areas near Delhi? Or they chose to settle in areas of the far east?' What incentives did the British

traders offer to the princely rulers? Did the strife between the kingdom and princely rulers pacified British settlement in India?

### Teaching Strategies:

As with most history chapters in this book, a plausible teaching strategy with this lesson is the story telling style. Begin with explanation of the conditions and gaps in the Mughal territorial control. Make sure that your students understand the formal establishment of the business settlement of the British from the informal business voyages of the past.

The East India Company, which started initially as a trading company, had, by 1773, acquired territorial control over Bengal, Bihar, Orissa, Madras and Bombay. The Nawab of Awadh and Carnatic were their dependents.

However, after 1765 they had to face stiff opposition from the Marathas, Haider Ali and Tipu Sultan of Mysore, and the Sikhs. The East India Company had to subjugate these powers in order to be paramount in India.

The discussion around the Mysore and Maratha wars should take the context of small, but precise rebellions by the Sikhs. The Sikhs, like Mughals, wanted to expand their territorial control and it was for this reason that they appeared to side with the British. In the same fashion, the mention of Anglo-Maratha wars be made, stating that Muslims chose to side with the British to defeat Marathas. Hence, the British stood out as the ultimate winners of the internal strife among the local rulers of the time.

### Answer to Comprehension Assessment:

1. What do you think would happen had the Marathas not been beaten in the third Panipat war?
  - A. At one time, the Marathas had captured large areas of North India. BalajiBaji Rao was one of the peshwa or prime ministers of the Marathas. Under his leadership, they reached the peak of their power. Just three years before the Third Battle of Panipat they controlled almost the whole of the Moghul Empire. They even offered the weak Moghuls their support. Who knows how things would be if the Moghuls had joined hands with the Marathas to restrain and overcome the princely states that wanted to be independent. But then a foreigner Shah Abdali's aims caused him to clash with the Marathas. Thus events went in a completely new direction. The Maratha defeat was one of the big reasons that the British stepped in successfully. Had they not been beaten, they would easily have shared power with Moghuls with many years to come.
2. State the outcome of the Allahabad Treaty for the Moghul Empire.
  - A. The Allahabad Treaty brought the major princely powers of India under the tamed protection of the British East India Company
3. Describe what religious revivalists wanted from the people.
  - A. The religious revivalists worked towards the moral character of their age. They devoted themselves to redefining social and traditional ideas in changing times. The arrival of the British changed a lot for the people very fast. Cultural practice and sense of identity came to deal with new forms and pressures.





These learned men also saw that people believed some superstitious actions to be religious obligations. Such actions included burning widows alive, not allowing women to school themselves, avoiding remarrying widows, believing that some people belong to an untouchable caste, clinging to the purdah system, child marriage and bigotry. These men encouraged people to stop following such actions in the name of religious loyalty.

Some of these reformers were also supported by the British government. The new government wanted to pass laws that would make anti-widow actions illegal.

### Extended Teaching:

**Net Extra:** Guide your students about how to use Net Extra for better understanding of the lesson and also to find out meaning of difficult words.

**Support Material:** Learn more about by visiting <http://www.historydiscussion.net/history-of-india/growth-of-british-power-in-india/1510>

## Chapter 13: Ethical Values

### Lesson Objectives:

After completing this chapter, the students should be able to:

1. Explain the meaning of the term 'ethical value'.
2. Appreciate the role of ethics in our daily life
3. Learn and practice the value of speaking truth.
4. Learn and practice the ethical value of respecting the rules.
5. Learn and practice the ethical value of 'sharing and caring'.
6. Explain honesty as the central ethical value of our life
7. Understand that we can only be good citizens if we practice ethics in each aspect of our life.

### Lesson Starters:

This chapter aims to enrich the civic and ethical conscience of the students. As social beings, we are all expected to be honest with each other, speak the truth, respect the rules and share and care. This chapter should therefore address ethics in such a way that these values become part and parcel of the students' character.

You may start this lesson with a small question and answer session. For example, you may ask why certain people always speak the truth while others will lie whenever they can. 'Why do we need to be honest?' 'Why do we need to follow the rules of every place', 'how can we be more trustful towards each other?' You may encourage students to discuss instances where they found someone to be very ethical and someone to be very unethical. You may also discuss the benefits of being ethical and the disadvantages of being unethical.





### Teaching Strategies:

An important outcome of this lesson is the student's realization of his/her ethical self. Your values are your personal inventory of what you consider most important in life. We all have values, but unless we take the time to think about those values, we can easily overlook them when we're making important choices. Here are some guideline questions you can ask your students so that they can identify their ethical values.

- Is this something that's important to you?
- Do you feel good about this being important to you?
- Would you feel good if people you respect knew that this was important to you?
- Have you ever done anything that indicates that this is important to you?
- Is this something you would stand by even if others made fun of you for it?
- Does this fit in with your vision of who you are?

Oftentimes we find ourselves in situations where we have to make a choice between two values that are in conflict with each other. At times like this we must be ready to distinguish between our higher values and our lower values.

As student's are also aware of the term 'corruption' at this stage, you can ask them to give instances from their life where they compromised on some of their ethical value against corruption. While teaching the part of honesty and truthfulness, teachers must make sure that they state the long run benefits of these ethical virtues.

### Answer to Comprehension Assessment:

1. What are ethical values? Why do we need to practice ethical values in our life?
  - A. The rules with which we decide on the right or wrong, the good and the bad are called ethics. Ethical rules of a given society are also known as its ethical values. An understanding of ethics helps us to take intelligent and moral decisions, ones that will be of greatest benefit to us and those around us.
2. Ethics begin at home. What family ethics should we follow at home?
  - A. Here are some basic family ethics to practise:
    1. Behave gently to your elders and those younger than you. You cannot live without them. Arrogance will not help you in any manner. Be humble and loving to everyone, so they can treat you humbly aswell.
    2. Don't be neutral or silent upon improper conduct. Even if an elder is behaving ungently you should gently make your point.
    3. Be helpful to your parents. Help them in their daily routine wherever you can. You should also help your younger siblings in doing their homework, helping them to learn the things you already know. Helping them will make them realise that you care for them. Remember, we all need others to help us in our daily course.



4. Respect everyone in the family, including our parent, siblings, grandparents, uncles, aunts and cousins. We should not shout even when we are angry. Our anger might fade as time passes but the impact of our behavior is permanent.
  5. Give equal respect to male and female members of your family, they are equal in all aspects.
3. What are the benefits of punctuality?
    - A. If you are punctual it will strengthen your integrity. When we tell someone that we will meet them at a particular time, we are making a promise to them, and when you are late you are breaking that promise. Being on time shows that you are a person of your word. People know that they can rely on you.
  4. Why do we need to respect the rules of every place?
    - A. Rules are made to get order and discipline. They help us to get the utmost benefits of living together with least harm in a collective sense. Rules are for the collective benefit of the society, and as society we ought to respect and follow the rules.
  5. How can we share our blessings?
    - A. There should be a balance between you and your surroundings. If you are blessed with something, try to serve others by paying back. You can volunteer your time for some. You can feed the poor and the needy. You can help the weaker ones of your community.
  6. How do honesty and truthfulness benefit the society?
    - A. Honesty is a trait which enables you to face any situation of life with confidence, because you are sure that you didn't harm anybody, so there is nothing to be feared. Truthfulness gives you the courage of taking the responsibility. You don't hesitate to initiate, are confident enough to own your actions, and this helps you in the work as well making credibility of yourself.
  7. State six traits of a responsible citizen. Elaborate your answer with examples from daily life.
    - A. Here are the important traits of a responsible citizen:
      - Cooperates
      - Shares information
      - Stays informed
      - Is a good neighbor
      - Protects the environment
      - Obeys the law
      - Exhibits civic duty
      - Seeks the common good for the most people
      - Protects the environment

### Extended Teaching:

**Net Extra:** Guide your students about how to use Net Extra for better understanding of the lesson and also to find out meaning of difficult words.

**Support Material:** Watch Ted Talks about ethics at <https://www.youtube.com/watch?v=NO4mgCDtMXs>

## Chapter 14: Ethical Role Models

### Lesson Objectives:

After completing this chapter, the students should be able to:

1. Able to define ethics and their importance in human life
2. Appreciate the role of ethical role models, or people who motivate us to live a constructive life
3. Discuss the contribution and piety of Mary, or Hazrat Maryam.
4. Discuss the contribution of Saint Paul in developing ethical values
5. Discuss the contribution and teachings of Asoka
6. Discuss the contribution and teaching of Thomas Aquinas
7. Discuss the contributions and teachings of Rabia Adawiyaa
8. Discuss the contributions and teachings of Mira Bai

### Lesson Starters:

As in the like-named chapter in Book 6, this chapter sets the foundation for the students' understanding of ethics. It heavily stresses on the role of living an ethical life regardless of one's religious affiliations. As such, teachers must be able to clearly describe ethical values, ethical virtues and ethical practices which we must follow no matter which area, nation or religion we belong to.

Ask students questions relating to real-life role models of ethics. What do they know about Abdul Sattar Edhi, Nelson Mandela, Mother Teresa etc. Explain to your students some of the virtues possessed by these great personalities.

Brainstorming questions may comprise, among others, the following:

- How do you know what your values are?
- Do you think we are born with values or we learn them? If we learn them, how do we learn them? Who helps you figure out what you value?
- Is it sometimes hard to live by your values? (Do you sometimes have to make a sacrifice in order to do what is right?) Is it worth it? Why?
- How can you benefit from knowing what your values are?

### Teaching Strategies:

This chapter is part of the 3-chapter series on ethical role models. The lesson aims to make student's doers rather than thinkers when it comes to ethical decision making. In addition to chapter reading, you can carry out the following activities for stimulating ideas based on the lesson:

1. Break the class into small groups. Have each group make a list of values to live by (no more than ten) in order of importance. Then, have a spokesperson from each group present the list to the class along with any needed commentary. Put all the lists up on the wall. What values did all groups share? Were there any serious differences between the groups? Discuss the differences and see if it's possible to develop a list that everyone will buy into.
2. Have everybody in the class bring in one or two advertisements aimed at teenagers. These can be cut out of magazines or taped off of TV. Have a class discussion to evaluate the ads by asking the following

questions: What values does this ad appeal to? What values does this ad promote? Do you share those values? Is this ad in conflict with any of your values? What assumptions does this ad make about who you are? Is this ad attempting to influence your image of yourself?

Discussion around the ethical role models discussed in the lesson could be supplemented by video documentaries based on the personalities being discussed. Several videos are made available on the internet regarding Mary (Hazrat Maryam), Mira Bai and Asoka. Let your students have a good insight of the character of these personalities to help them in their character-building.

### Answer to Comprehension Assessment:

1. What are ethics? How are ethics different from ethical role models?
  - A. Ethics is a set of principles which guide our behaviors to help others. Evolution of ethics is a continuous process and we all are the part of it. But some personalities contribute more in shaping the ethical values of the society. These are our ethical role models.
2. Which of the personalities discussed in this chapter are related to Islam? Which of them are related to Hinduism, Buddhism or Christianity?
  - A. Mary or Hazrat Maryam is both related to Islam and Christianity, while Saint Paul and Thomas Aquinas relate to Christianity alone. Mira Bai and Asoka belong to Hinduism alone, while Hazrat Rabia Basri relate only to Islam.
3. What caused Asoka to transform himself from a short tempered and cruel person to a peaceful Buddhist?
  - A. The battle of Kalinga changed Ashoka and his lifestyle forever. It is estimated that almost 100,000 soldiers lost their lives in the battle alone. And more than 200,000 died after due to the atrocities of that war. This massive murder shakes Ashoka upside down. For the rest of his life, Ashoka adopted Buddhism and a policy of non violence. He also promoted the concept of vegetarianism. He embraced the message of peace, love and kindness Buddha once taught. He made the ideology of Buddha as his state narrative.
4. Why did Hazrat Rabia Basri prayed without any fear of Hell and greed of Paradise?
  - A. Hazrat Rabia was the one who established the doctrine of Ishq e Haqeeqi. After a life of hardship, she achieved a state of self-realization. Even the sufis of her time greatly admire her level of love to the God.
5. What lessons do we learn from the practice and teachings of Mary (Hazrat Maryam A.S.)?
  - A. Mary has always been a central figure in life and struggle of the Jesus Christ. She lived throughout the life of Jesus and lived as a caring and supportive mother. She is the role model for mothers since the medieval times.

### Extended Teaching:

**Net Extra:** Guide your students about how to use Net Extra for better understanding of the lesson and also to find out meaning of difficult words.

**Support Material:** Learn more practical ethics by watching these video documentaries <https://documentaryaddict.com/tags/ethics>

