## Items for Assessment of Learning Outcomes



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## CHAPTER I

## THE EARTH IN THE SOLAR SYSTEM

## LEARNING OBJECTIVES

- Explore their knowledge about universe, galaxy, stars, solar system and planets with the help of diagrams.
- Critically analyses about various celestial bodies.
- Compare planets and dwarf planets.
- Define phases of the moon like full moon and new moon.
- Explore and describe unique place of the Earth in the Solar System, which provides ideal conditions for all forms of life, including human beings.
- To enable the students to list the planets according to the distance from the sun.
- Appreciate the importance of Sun, Planets, Pole star collaboratively
- To enable the students to distinguish between asteroids and meteoroids.
- Enable the students to develop various dimensions of learning like critical thinking, analytical, comparative, creative etc.


## LEARNING OUTCOME

Describes different characteristics and motions, etc. of stars, planets and satellites e.g., sun, earth and moon in order to distinguish between them.


Q1. Planets such as mercury, Venus, earth and mars are classified as:
a) Terrestrial planets
b) Giant planets
c) Proximal planets
d) Alfa cantauri planets

Q2. The correct ascending order of distance of planets from sun is
a) Mars, Earth, Jupiter, Saturn
b) Earth, Mars, Jupiter, Saturn
c) Earth, Mars, Saturn, Jupiter
d) Earth, Jupiter, Mars, Saturn

Q3. Diamond ring occurs in which type of solar eclipse?
a) Total Solar eclipse
b) Partial Solar eclipse
c) Annular Solar eclipse
d) None of the above

Q4. Earth's surface is split into plates. What are these plates called?
a) The pacific plates
b) The south American plates
c) Tectonic plates
d) South Atlantic plates

Q5. The changing of the shape of the moon is called a/an
a) Eclipse
b) Phase
c) Shadow
d) Reduction

Q6. What is the time taken by the light of the sun to reach on the earth?
a) 8 minutes
b) 9 minutes
c) 8 minutes 20 seconds
d) 8 minutes 18 seconds

## Q7. The temperature at the centre of sun is about

a) $40,000^{\circ} \mathrm{C}$
b) $50,000^{\circ} \mathrm{C}$
c) 15 million ${ }^{\circ} \mathrm{C}$
d) $150,000{ }^{\circ} \mathrm{C}$

## Q8. A meteorite is

a) an irregularly shaped body, mostly found orbiting between Mars and Jupiter.
b) an icy body with a long tail extending from it.
c) a chunk of space debris that has struck the ground.
d) a streak of light in the atmosphere

## ANSWERS

1.(a) 2. (b) 3. (a) 4. (c) 5.(b) 6. (c) 7. (c) 8. (a)

## CHAPTER II

## GLOBE: LATITUDES AND LONGITUDES

## LEARNING OBJECTIVES

- Understand Latitudes and Longitudes, Heat Zones of the earth and the relationship between time and longitude.
- To Critically analyse heat zones on the basis of Latitudes.
- Collaboratively locate places on globe with the help of latitudes and longitudes. To identify relationship between longitude and time.
- To clarify difference between the standard time and local time.
- Appreciate the relationship between longitude and time. perform: Map and Globe Activity. Involving the Competencies - - Creative thinking Collaboration - Communication.


## LEARNING OUTCOME

- Identifies latitudes and longitudes, e.g., poles, equator, tropics, states /UTs of India and other neighbouring countries on globe and the world map.


## Q1. Identify the picture


a) Latitudes
b) Grids
c) Longitudes
d) Standard meridians

Q2. The classification of heat zones of the $\qquad$ was first done by Greek Scholar Aristotle.
a) Earth
b) Moon
c) Mars
d) Sun

Q3. Among the following cities, which one lies on a longitude closest to that of Delhi?
a) Bengaluru
b) Hyderabad
c) Nagpur
d) Pune


## Q4. Complete the sentence by selecting correct option:

To calculate the difference the local time of any two places of the earth.
a) The moon time of both places should be known
b) The difference in the degrees of their longitude should be known
c) The difference in standard times of the both places should know
d) Changes need to be made according to international date line

Q5. Observe the given map and identify the longitudinal and latitudinal value of Himachal Pradesh.

a) $32^{\circ} 0^{\prime} 0^{\prime \prime} \mathrm{N} \quad \mathbf{7 8}^{\circ} 0^{\prime} 0^{\prime \prime} \mathrm{E}$
b) $30^{\circ} 0^{\prime} 0^{\prime \prime} \mathrm{N} \quad 74^{\circ} 0^{\prime} 0^{\prime \prime} \mathrm{E}$
c) $24^{\circ} 0^{\prime} 0^{\prime \prime} \mathrm{N} \quad 90^{\circ} 0^{\prime} 0^{\prime \prime} \mathrm{E}$
d) $10^{\circ} 0^{\prime} 0 " \mathrm{~N} \quad 70^{\circ} 0^{\prime} 0^{\prime \prime} \mathrm{E}$

## ANSWERS

1. (a) 2. (a) 3. (a) 4.(b) 5. (a)

## CHAPTER - III

## MOTION OF THE EARTH

## LEARNING OBJECTIVES

- Student will be able to understand the concept of day and night.
- Critically analyses the concept of day and night.
- Enable the students to describe the terms - Orbital plane, Axis, Rotation, Equinox, etc. collaboratively.
- Critical thinking on what would happen if the Earth did not rotate?
- Will enable the students to enhance their communication skill while discussing the importance of rotation and revolution, importance of longitudes in our daily life.


## LEARNING OUTCOME

- Demonstrates day and night; and seasons through oral discussions /in writing /through models and other formats.


## Read the given passage and answer the question:

As the Earth moves around the Sun it rotates on its axis, so we have day and night. The side of the Earth facing the Sun is bathed in light and hot (day-time). The side of the Earth facing away from the Sun, out towards space, is darker and colder (night-time).

## Q1. What is night-time?

a) the time when a place on Earth is facing away from the Sun's warmth and heat
b) the time when the sun is visible from a place on Earth
c) the time when we sleep
d) the time when we eat

## Q2. What does the following picture represent?


a) Different time zones
b) South pole
c) Meridians
d) Day and night shown on a globe

Q3. When the days are $\qquad$ there is less time for us to get heat from the sun, so the weather is colder.
a) Longer
b) Shorter
c) Hot
d) Cold

Q4. What would have happened if the earth did not rotate?
a) Cold conditions on earth's half portion
b) Warm conditions on earth's another half portion
c) No life possible in such extreme conditions
d) All of these

## ANSWERS

1. (a) 2. (d) 3.(b) 4. (d)

## CHAPTER IV <br> MAPS

## LEARNING OBJECTIVE

- Understand function and concept of map
- Know about the importance of map with the help of globe.
- Know about classification of map.
- Understand the different types of direction.
- Develop their analysing skills using their understanding of directions
- Design creative methods to make a plan of their own house or school
- Appreciate the importance of maps over globe collaboratively
- To develop basic skills of map rreading.
- Various dimensions of learning like critical thinking, analytical, comparative, creative etc. Will develop habits of mind an ultimate and essential life skill


## LEARNING OUTCOME

- Draws a neighbourhood map showing scale, direction, and features with the help of conventional symbols
Q. 1. The amount of information to be represented on the map depends on
a) Scale
b) Projection
c) Conventional signs
d) All of the above

Q2. In which of the following sciences maps occupy the most important place?
a) Oceanography
b) Pedology
c) Climatology
d) Military science

Q3. It is essential to pay more regard to which of the following two things while classifying maps into different categories?
a) Amount of information and projection
b) Scale and purpose
c) Scale and projection
d) Projection and conventional signs

Q4. The scale on a map is $7 \mathrm{~cm}=10 \mathrm{~km}$
If the distance between two cities is 60 km . How far apart in cm are the two cities on the map?
a) 40 cm
b) 32 cm
c) 42 cm
d) 20 cm

Q5. A clock is so placed that at 2:00 p.m. the minute hand points towards North-west. In which direction does the hour hand point at 6:00 p.m.?
a) North-West
b) West
c) North-East
d) South-East

Q6. What are the map-reading basics that will help you read a map successfully?
a) Compass directions, grid references and key
b) Compass directions, grid references, key and scale
c) Compass directions, grid references, key, scale and reading the title
d) none

Q7. Which of the features below cannot be found in a political map?
a) Border lines
b) Capital cities
c) Contour lines
d) Ocean's name

Q8. How is scale important to draw a map? Draw a map of your school and use conventional symbols.

## ANSWERS

1. (d)
2. (d)
3. (b)
4. (c) 5 (c)
5. (c)
6. (c)
7. (Do it yourself)

## CHAPTER - V

## MAJOR DOMAINS OF THE EARTH

## LEARNING OBJECTIVES

- Students will be aware of the importance of lithosphere.
- To enable the students to critically analyse the seven major continents and the four major Oceans of the world collaboratively
- To enable the students to differentiate between lithosphere, hydrosphere, atmosphere, biosphere
- Able to collect the information about oceans and know that they are the major part of the hydrosphere.
- Critical analysis of the layers of atmosphere.
- Know about water cycle. And understand about global warming.
- Locates directions on the flat surface; and continents and oceans on the world map
- Enhance their communication skills by discussing on different continents in the world.
- Various dimensions of learning like critical thinking, analytical, comparative, creative etc. will develop habits of mind an ultimate and essential life skill.


## LEARNING OUTCOMES

- Draws and understands diagrams in order to understand lithosphere, hydrosphere, atmosphere and biosphere.


## Q1. Identify the below marked domain.


a) Biosphere
b) Lithosphere
c) Atmosphere
d) Hydrosphere

## Q2. Which of the following domain has vast extension?


a) Lithosphere
b) Biosphere
c) Atmosphere
d) Hydrosphere

Q3. Which of the following occur due to tectonic shifts in the Earth's lithosphere?
a) Tsunami
b) Volcano
c) Earthquake
d) All of the above

Q4. Which is the warmest layer of the atmosphere?
a) Thermosphere
b) Troposphere
c) Stratosphere
d) Mesosphere

Q5. The "Ozone Layer" lies within the
a) Thermosphere
b) Troposphere
c) Mesosphere
d) stratosphere

Q6. Due to continuous change of state of water among solid, liquid and gas
a) We have water cycle
b) We have oceans that are salty
c) We have rivers and lakes
d) We have different temperatures

## Q7. Observe the given map and identify the direction of West Bengal.


a) east
b) west
c) north
d) south

## ANSWERS

(a) 2. (c) 3. (c) 4. (a) 5. (d) 6. (a) 7. (c)

## LEARNING OUTCOME

- Locates directions on the flat surface; and continents and oceans on the world map

Q8. Colour in the continents, as follows: Asia: orange Africa: green North America: brown South America: black Antarctica: purple Europe: yellow Australia: red


Q9. Which of the following is not a part of a map drawn on a flat surface?
a) Globe
b) Scale
c) Directions
d) Conventional symbols

Q10. What ocean does the star show?

a) Indian Ocean
b) Arctic Ocean
c) Southern Ocean
d) Atlantic Ocean

## ANSWERS

Q8. (do it yourself) Q9. (a) Q10. (a)

## LEARNING OUTCOME

- Draws and understands diagrams in order to understand lithosphere, hydrosphere, atmosphere and biosphere.

Q11. Which sphere is shown here?

a) Atmosphere
b) Geosphere
c) Biosphere
d) Hydrosphere

Q12. Why is MOST of the freshwater on Earth not available for our use?

a) All freshwater on Earth is easily accessible for use.
b) It is frozen in the icecaps and glaciers.
c) It is surface water.
d) It is underground.

Q13. The measurement of how salty a body of water is...
a) Conductivity
b) pH
c) Salinity
d) Turbidity

ANSWERS
Q11. (a) Q12. (b) Q13. (c)

## CHAPTER - VI

## MAJOR LANDFORMS OF THE EARTH

## LEARNING OBJECTIVES

- Critically analyse various landforms. And know the difference between them
- Enhance their knowledge about oldest plateau.
- Understand the importance of plateaus that how useful they are.
- Get aware of the importance of various landforms.
- Appreciate the diversity in relief features of the Earth.
- Students would be able to present in front of the class the refined knowledge about mountains and plateaus amongst themselves by discussing /communicating
- Know various dimensions of learning like critical thinking, analytical, comparative, creative etc. will develop habits of mind an ultimate and essential life skill


## LEARNING OUTCOME

- Locates physical features of India such as - mountains, plateaus, plains, rivers, desert, etc. on the map of India in order to compare and describe them.
Q1. Which of the following divisions of India has the oldest landmass?
a) The Himalayas
b) The Northern Plains
c) The Peninsular Plateau
d) The Indian Desert

Q2. The percentage of land surface of Earth which is covered by plateaus is
a) $38 \%$
b) $65 \%$
c) $45 \%$
d) $50 \%$

Q3. Besides landforms, the other large features that cover the surface of the earth are $\qquad$ .
a) islands
b) waterways
c) deserts
d) lakes

## Q4. On map of India mark the following:

- The north Indian region
- The coastal plain region
- The Indian plateau
- Great Indian desert


Q5. Mountain ranges in the eastern part of India forming its boundary with Myanmarare collectively called as
a. Himachal
b. Purvachal
c. Uttarakhand
d. None of the above

## ANSWERS

1. (c) 2. (c) 3. (c) 4. (do it yourself) 5. (b)

## CHAPTER - VII <br> OUR COUNTRY INDIA

## LEARNING OBJECTIVES

- Explore their knowledge about Indian standard time and its importance.
- Critically analyse various geographical fact about India collaboratively.
- Know more about India in terms of locational setting, neighbours, all the major physical features and how they are complementary to each other.
- Various dimensions of learning like critical thinking, analytical, comparative, creative etc. will develop habits of mind an ultimate and essential life skill.


## LEARNING OUTCOME

- locates important historical sites, places on an outline map of India

Q1. Which of the following statements regarding the Standard Time Zones is correct:
a) Every country calculates its Standard meridian as the angular distance from the Greenwich meridian
b) Every country has only one Standard Meridian Time.
c) Indian Standard time is 5.5 hours ahead of Greenwich Meridian Time.
d) Both (a) and (c)
2. Which of the following country does not share land boundary with India?
a) Bhutan
b) Bangladesh
c) Tajikistan
d) Nepal
e)
3. By which geographical feature is India bounded in the north-west, north and north-east?
a) Seas
b) Lave Plateaus
c) Young Fold Mountains
d) Sandy Desert

Q4. Mark the following historical places on map of India.

- Taj Mahal
- Golden Temple
- Qutub Minar
- Gate way of India



## ANSWERS

1. (d) 2. (c) 3. (c)

## CHAPTER - VIII

## INDIA: CLIMATE, VEGETATION AND WILDLIFE

## LEARNING OBJECTIVES

- Students will able to discuss the importance of change in climate. Appreciate the need of it.
- Get aware of the importance of forests in our life.
- Discuss the importance of preservation of animals. Why do birds migrate and its importance?
- Locate different Wild Life Sanctuaries on the map of India
- Explore the reasons for reduced bird migration in our country e.g., Saras, Cranes or Flamingos.
- Appreciate the diversity of weather, forests, plant, animals etc.
- Various dimensions of learning like critical thinking, analytical, comparative, creative etc. will develop habits of mind an ultimate and essential life skill.


## LEARNING OUTCOME

- Recognises that the earth is a unique celestial body due to existence of life, zones of the earth with special reference to biosphere.


## Q1. Which of the following do you think has the least impact of climate change in forest?

a) Change in quality and quantity of wood supply
b) Loss of forest-based employment
c) Altered forest productivity
d) Loss of biodiversity

## Q2. Which of the following statement is not correct?

a) Forests protect the soil from erosion
b) Plants and animals in a forest are not dependent on each other
c) Forest influences the climate and water cycle
d) Soil help to forest to grow and regenerate
Q3. Which of the following statement is correct about the Sanctuary?
a) Multipurpose protected areas to preserve genetic diversity in representative ecosystem.
b) A reserves area meant for preserving its natural vegetation, wildlife and natural beauty.
c) A reserved area meant for preservation and development of endangered species.
d) All of the above

## Q4. What does the term 'MIKE' stand for?

a) Monitoring of Illegal Killing of Elephants
b) Monitoring of Illegal Killing in Europe
c) Monitoring of Illegal Killing of Eagle
d) Monitoring of Illegal Killing of Endangered Species

## Q5. Locate the following wildlife sanctuaries on the map of India

1. Corbett National Park ----------------Uttarakhand
2. Gir National Park --------------------Gujarat
3. Kaziranga National Park------------- Assam
4. Periyar Sanctuary Kerala


## Q6. Which of the following choices is NOT a reason birds migrate?

a) To sleep through the winter
b) To raise off spring in a safe place
c) To find enough food to survive
d) To move to an area with warmer weather

## ANSWERS

Q1. (b) Q2. (b) Q3. (c) Q4. (a) Q5. Activity Q6.(a)

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"Live as if you were to die tomorrow. Learn as if you were to liveforever"

- Mahatma Gandhi


## 2021

 STATE COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING