SNBP International & Senior Secondary School, Chikhali, Pune.
Affiliation No. 1130703
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NOTES

CLASS: V SUBJECT: SST
Prepared By: Ms. Avinash Kaur L1: Globes and Maps

Pre-Activity

Read the hint and unscramble the letters.

I am a model of the planet Earth. OBLGE-

Draw a globe and colour it very neatly

New Words

1. ancient
2. Aristotle
3. Sir Issac Newton
4. Oblate spheroid
5. Eratosthenes
6. Latitudes
7. Longitudes
8. Parallels of Latitude
9. Prime Meridian
10. International Date Line

Short Answers Questions:

Q.1 What helps to locate a place on the Earth?

Ans: The longitudes and latitudes together define the location of a place. Every place has a latitude and longitude associated with it. For example, India's capital New Delhi is located at 28.70° N (which is the latitude) and 77.10° E (which is the longitude). Mumbai, which is situated on India's western coast, has the coordinates 19.07° N and 72.87° E.

Q.2 How many hemispheres is the Earth divided into?

Ans: The Earth is divided into four hemispheres in all. The Equator divides the Earth into Northern and Southern Hemisphere whereas the Prime Meridian divides the Earth into Western and Eastern Hemisphere.

Q.3 What are the differences between Globes and maps?

Ans:

Globes	Maps
1. A globe is the closest representation of our Earth. It is a 3-D model of the planet we live on, but on a smaller scale.	1. Maps are two-dimensional representations of features that we find on the surface of the Earth.

2. When we look at a globe, we know more or less how the land and water bodies are placed on the surface of the Earth.	2. Since maps are flat (and the Earth is round), they are not as effective in representing the Earth as globes.
3. We also come to know about the locations and distances of land and water bodies with reference to each other.	3.However, we can cover more details in a map as compared to a globe. A map is easier to carry around (it can be folded and pasted).

Q.4 What happens when we cross the International Date Line?

Ans: The International Date Line is the imaginary line separating two calendar dates. If we are travelling across the world (in an east or west direction), we will pass through different time zones. This means that we keep adjusting the time on our watch. If we travel in a westerly direction and reach the International Date Line then we add a day in order to have the correct date. If we travel east and reach the International Date Line then we have to subtract a day.

Long answer question:

Q.1 Describe the discovery of the shape of the Earth.

Ans:i) During ancient times, it was believed that the Earth was flat.

ii) People thought that if you walked in a straight line, you would reach the ends of the Earth and fall off.

iii) The theories about a flat Earth persisted for a long time. Greek scientists gradually realised that the Earth could be round.

iv) They made some observations of the moon and its phases and then they thought that if the moon is round then the Earth should also be round. Another Greek astronomer and philosopher Aristotle also argued in favour of a 'round' Earth.

v) He found that the shadow of the Earth on the moon, during a lunar eclipse (when the Earth comes between the Sun and the Moon) was curved.

vi) About two thousand years after the Greeks first found that the Earth was round, another scientist Sir Isaac Newton discovered that the planet was not a perfect sphere but a distorted one.

vii) The Earth has a bulge in the middle and is slightly flattened at the two ends. It is shaped almost like an orange. In scientific terms, it is called an oblate spheroid.

Q.2 What is Prime Meridian and what is its importance?

Ans:i) The most important meridian of longitude is the line, which runs through the Greenwich Observatory (East London) in England. This line is taken as zero degrees and is called the Prime Meridian.

ii) It divides Earth into the Western Hemisphere and the Eastern Hemisphere. As equator is taken as the reference for latitudes, prime meridian is taken as longitudes' reference for finding locations.

Q.3 What is the International dateline?

Ans:i) The International Date Line zigzags around the 180° meridian and is very important for navigations by air and by sea and for adjusting time by travellers. The International Date Line is the imaginary line separating two calendar dates.

ii) If we are travelling across the world (in an east or west direction), we will pass through different time zones. This means that we keep adjusting the time on our watch.

iii) If we travel in a westerly direction and reach the International Date Line then we add a day in order to have the correct date.

iv) If we travel east and reach the International Date Line then we have to subtract a day.

Q.4 Explain the parallels of Latitude. Which are the important Latitudes?

Ans: i) On maps and globes, there are lines that cover the surface and form a grid. Some of these lines run from top to bottom – that is from North Pole to South Pole – while the others run horizontally around the Earth in circles, parallel to the Equator.

ii) The lines that are parallel to the Equator are called parallels of latitude. Latitudes are expressed in degrees, which are the angles that they make with the Equator. The latitudes, next to the Equator, on either side of it, are each one degree away from the Equator.

iii) One degree of separation (or the distance between the latitudes) is roughly about 111 km. Latitudes progressively make smaller circles on either side of the equator, but because they are parallel to each other, the distance between them is the same at all points.

The important latitudes are:

-Equator is located at 0 degree. It is the longest latitude.

- Tropic of Cancer – lies to the North of the Equator and its location is 23.5° N (the 'N' stands for North). It passes through India.

- Arctic Circle – also lies to the North and its location is 66.5° N.

-The Tropic of Capricorn - to the South of the Equator, is 23.5° S (the 'S' stands for South). Antarctic Circle – further to the South of the Equator, is at 66.5° S. meteorites.

Post Activity

Draw two different globes and show Latitudes and Longitudes on it.