

24/07/24

Ch. 3. MOTIONS OF THE EARTH.

- Revolution
 - Earth's orbit
- Seasons
 - Solstices - Summer & winter Solstice
 - equinoxes - Spring & Autumn Equinox

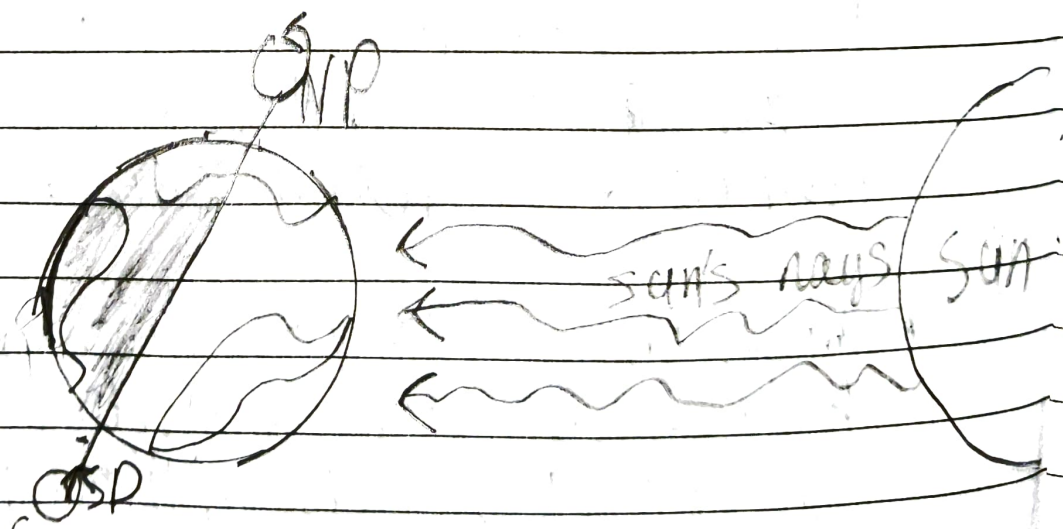
Revolution of the Earth

- While the Earth spins on its axis, it also goes around the sun. This movement of the Earth around the sun is called revolution.
- It takes 365 days ~~day~~ one year to complete the revolution. It follows a path called orbit. The orbit is not circular but oval or elliptical in shape.
- When the distance between the Earth & the sun varies from a minimum of roughly 147 million km in January, it is called perihelion.

- When the distance ~~varies~~ reaches to a maximum of ~~at least~~ roughly 152 million km in early July, called the Aphelion.
- The plane in which the Earth goes around the Sun is called the elliptic.

EFFECTS OF EARTH'S REVOLUTION

- ~~Revolution~~ Revolution of the Earth, along with the tilt in the Earth's axis, causes:-
 - Varying length of Day & Night
 - Changing seasons



Varying lengths of Day & Night

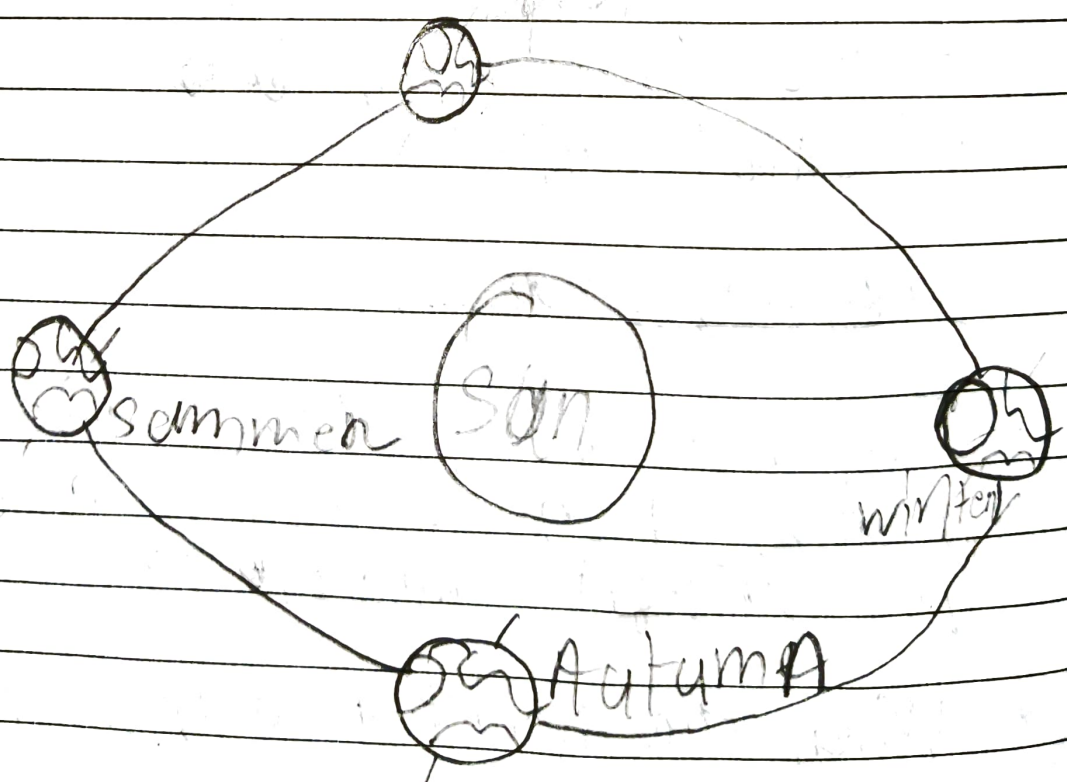
- The Earth is tilted on its axis, due to this tilt the pattern of light falling on the Earth is different.
- For the half year Northern Hemisphere faces the Sun while for the next six months, the Southern Hemisphere.
- A larger part of the hemisphere that faces the Sun gets sunlight. This means that the hemisphere ~~face~~ facing the Sun gets longer days & shorter nights.
- At the equator, the days & nights are of equal length.

Changing Seasons

- The movement of the Earth along its position which changes the amount of the sunlight falling on it.
- When the Northern Hemisphere is.

closer towards the Sun it's summer there. The Southern Hemisphere enjoys the winter season at the same time.

- When the Northern Hemisphere is farther from the Sun as compared to the Southern Hemisphere and summer in the Southern Hemisphere.
- In between the season of summer & winter when the Earth's position is changing we have the spring & the autumn season.



WORKSHEET-I

1. The words rotate & revolve have same meaning when describing the motion of planets.
false

2. The movement of the Earth around the Sun once every 365.25 days is called *revolution*

3. The movement of the ~~the~~ Earth ~~as~~ it takes 24 hours to spin on its axis is called *rotation*

4. What the shape of a planet's orbit?
elliptical

5. The picture shows the daylight side of Earth which best describe Earth has day and night
Earth rotates on an axis.

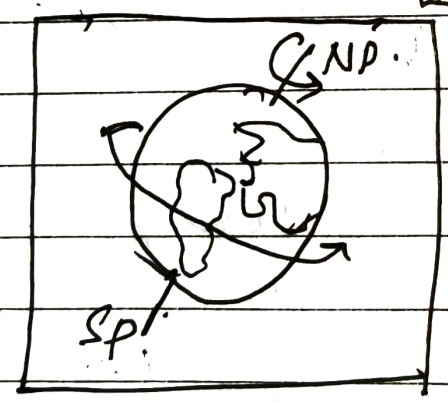
6. One complete revolution of Earth around the sun ~~around~~ is called a *year*

7. What causes the apparent movement of the Sun across the Sky during the day on Earth?
rotation of Earth on its axis

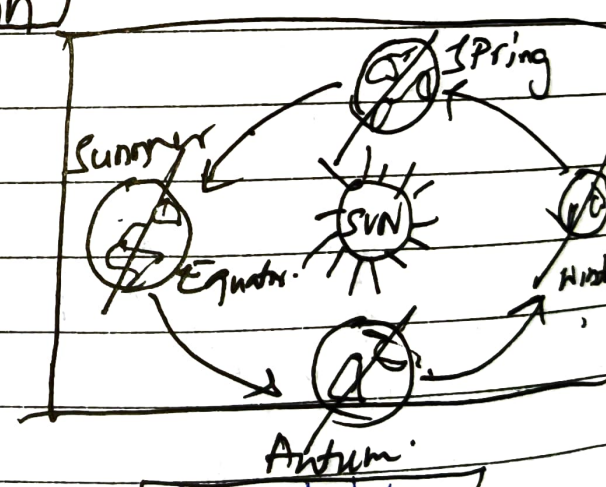
8. How long does it take for the Earth to rotate once on its axis?
1 day

Worksheet - II

1. Match the following
 Revolution
 Rotation



Rotation



Revolution

2. Say true and false

i) Earth ~~is~~ takes one year to complete one revolution around the sun. True

while the Earth spins on its ~~axis~~ axis it also goes around the Sun. This movement of the earth around the Sun is ~~called~~ revolution

b The days are longer than night on 22 March & 23 September false

c ~~a~~ year is divided into 3 seasons false

d The days are longer than night on 23 September to 22 March. false

3u 365, ~~366~~

b leap year

c 21

d summer, winter, rainy

e gregorian

f ~~the~~ revolution

Q. notation

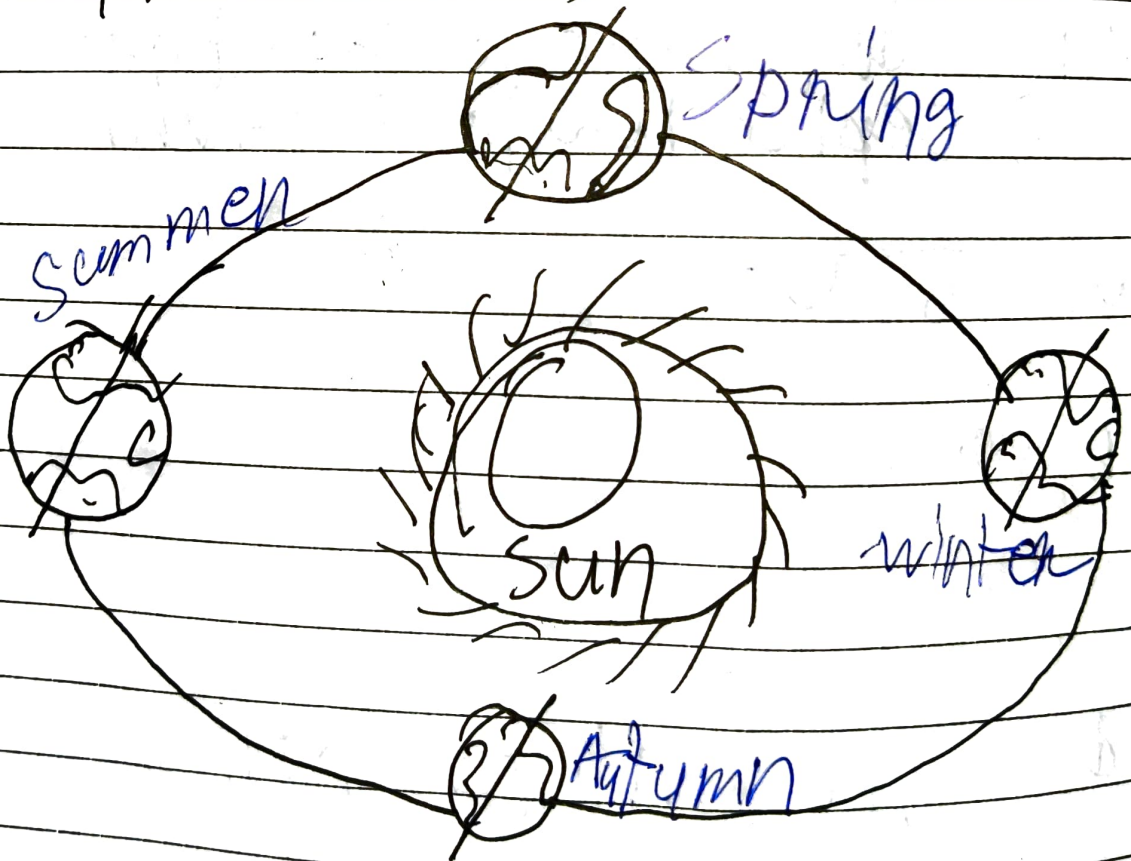
Q1. True

2. False

3. true

Q2. 24 hours

Q3. Label the seasons



Q4. 23.5

Q5 Earth's changing distance to the Sun

Q6 366 days

Q7 September 21

Q8 Ecliptic