

FEBRUARY 2019						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		

Exercises

Page No - 30

B Distinguish between the following:-

(1) Rotation	Revolution
(a) It is the motion of the earth along its axis.	(a) It is the motion of the earth on its orbit around the sun.
(b) The time taken for rotation is 24 hours.	(b) The time taken for revolution is 365 days.
(c) It causes days and nights.	(c) It causes the different types of seasons.
2. Leap day	Leap year
(a) It occurs on 29 th February.	(a) It occurs on every such year which is divisible by 4. Eg: 2004, 2008, 2020 etc.
(b) Leap day is of one day and is added in the month of February.	(b) Leap year has 366 days.
3. Perihelion	Aphelion
(a) In this the earth is nearest to the Sun.	(a) In this the earth is farthest from the Sun.
(b) The distance between the earth and the Sun is 147 million km.	(b) The distance between the earth and the Sun is 151 million km.
(c) Earth's velocity is greatest.	(c) Earth's velocity is lowest.

Sunday 13

S	M	T	W	T	F	S
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20	21	22	23	24	25	26
27	28	29	30	31		

Equinox

- 4
- (a) The duration of days and nights are equal
- (b) It occurs on 21st March and 23rd September
- (c) The Sun shines vertically over the equator

Solstice

- (a) The duration of days and nights are unequal
- (b) It occurs on 21st June and 22nd December
- (c) The Sun shines vertically over the Tropic of Cancer and Tropic of Capricorn respectively.

C Answer the following questions very briefly! =

- (1) Page no. 23 - 2nd paragraph.
- (1) Nicolaus Copernicus proved that the earth spins on its axis and also moves around the sun.
- (2) In ancient times people believed that the sun and the moon moved around the stationary earth.
- (3) The average speed of Earth's movement around the Sun is 30 km per second.
- (4) The dates on which the phenomenon of seasons can be easily understood are 21st March, 21st June, 23rd September and 22nd December.
- (5) The Earth rotates from west to east on its axis.

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(3)

Tuesday

03rd Wk/018-350

January

15

2 Three seasons!

- (1) In the summer season the Earth receives vertical or almost vertical rays of the Sun, so it receives more heat and light and that's why days are longer than nights during the summer season.
- (2) The distance between the Earth and the Sun is not the same throughout the year because the shape of the Earth's orbit is not circular but is elliptical.
- (3) The two movements of the earth that is rotation and revolution affect the heat received on the earth in the following way:
 - Rotation - ^{During} ~~The~~ rotation the part of the Earth which faces the Sun receives more heat and so it used to be hotter than the part of the Earth which don't face the Sun.
 - Revolution - ^{During} ~~The~~ revolution the part of the Earth which is inclined towards the Sun receives more heat and so it used to be hotter than the opposite part.

towards the South Pole.

- In the Northern Hemisphere, the nights are longer than the days. The length of the day decreases

- The equator experiences 12 hours of night.

At A Glance

- In ancient times people thought that all heavenly bodies moved around the stationary Earth.
- Copernicus, a Polish astronomer, was the first to propose that the Earth not only rotates on its axis, but also revolves around the Sun.
- The Earth takes about 24 hours or one day to complete one rotation on its axis.
- Due to rotation, one-half of the Earth receives light, while the other half remains in darkness.
- Due to the inclination of the Earth's axis, the length of days and nights varies from place to place and also from season to season.
- The alternate occurrence of day and night is due to the rotation of the Earth.
- The flattening of the Earth at the poles and bulging at the equator is also due to the Earth's rotation.
- The movement of the Earth around the Sun on a fixed imaginary path is called revolution.
- The fixed imaginary path along which the Earth revolves around the Sun is called the orbit of the Earth.
- The Earth revolves in an anticlockwise direction at a speed of about 30 km per second.
- The plane through which the Earth revolves around the Sun is called the plane of ecliptic.
- The variation in the length of day and night is due to the revolution of the Earth around the Sun.
- The distribution of heat and the phenomenon of seasons are also due to the revolution of the Earth.
- During equinoxes, the days and nights are of equal length throughout the world.

Exercises

Le-3

A. Fill in the blanks.

1. The movement of Earth around its axis is called rotation
2. The movement of Earth around the Sun is called revolution
3. The spring equinox in the Northern Hemisphere occurs on 21st March
4. The summer solstice in the Southern Hemisphere occurs on 22nd December
5. The path of the Earth around the Sun is called orbit

B. Distinguish between the following.

1. Rotation and Revolution
2. Leap day and Leap year
3. Perihelion and Aphelion
4. Equinox and Solstice