

## Chapter 2: Motions of the Earth

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### CAN YOU TELL ? [PAGE 8]

#### Can you tell ? | Q 1 | Page 8

What is the name given to the changing shapes of the moon that we see?

#### SOLUTION

The changing shapes of the moon that we see are called the phases of the moon.

#### Can you tell ? | Q 2 | Page 8

What are the names of the days on which we see a round moon and on which we see no moon at all?

#### SOLUTION

The day 1 on which we see a complete and round moon is called the full moon day. The day on which we cannot see the moon from the earth is called the new moon day.

### EXERCISES [PAGE 10]

#### Exercises | Q 1 | Page 10

##### What's the solution?

Amit wants to take his granny to Australia which is in the southern hemisphere. But she cannot bear very cold weather. When should they make this trip ?

#### SOLUTION

Australia is located in Southern hemisphere. During the time period of 23rd September to 22nd March, there is summer. So Amit's granny could be taken to Australia during this period. During the period of 22nd March to 23rd September there is winter so she should avoid going to Australia as she cannot bear the cold weather.

#### Exercises | Q 2. (a) | Page 10

##### Use your brain power !

How many rotations does the earth complete during one revolution around the sun?

#### SOLUTION

The earth takes one complete rotation in one day. It takes complete 365 days and one,  $\frac{1}{4}$  th day for one complete revolution. This means that in one revolution, the earth shows 365 and  $\frac{1}{4}$  rotations.

#### Exercises | Q 2. (b) | Page 10

##### Use your brain power !

It is sunrise at Itanagar in Arunachal Pradesh. Write the names of the following cities in the order in which the sun will rise there. Mumbai (Maharashtra), Kolkata (West Bengal), Bhopal (Madhya Pradesh), Nagpur (Maharashtra).

### **SOLUTION**

The earth rotates from west to east. Therefore there would be sunrise in the eastern states earlier. Later gradually the sunrise can be seen from the western states of India. The order in which the sunrise would be seen is as follows :

1. Itanagar in Arunachal Pradesh
2. Kolkata (West Bengal)
3. Bhopal (Madhya Pradesh)
4. Nagpur (Maharashtra)
5. Mumbai (Maharashtra)

### **Exercises | Q 3. (a) | Page 10**

#### **Fill in the blanks.**

The motion of the earth around itself is called \_\_\_\_\_

### **SOLUTION**

The motion of the earth around itself is called rotation.

### **Exercises | Q 3. (b) | Page 10**

#### **Fill in the blanks.**

The motion of the earth around the sun is called \_\_\_\_\_

### **SOLUTION**

The motion of the earth around the sun is called revolution.

### **Exercises | Q 3. (c) | Page 10**

#### **Fill in the blanks.**

The rotation of the earth gives rise to \_\_\_\_\_

### **SOLUTION**

The rotation of the earth gives rise to day and night.

### **Exercises | Q 4. (a) | Page 10**

What is meant by each of the following terms?

Full moon

### **SOLUTION**

**Full moon:** When the complete and round moon is seen in the sky. it is known as full moon.

**Exercises | Q 4. (b) | Page 10**

What is meant by each of the following terms?

New moon

**SOLUTION**

**New moon** : When the moon is not visible in the sky, it is known as new moon.

**Exercises | Q 4. (c) | Page 10**

What is meant by each of the following terms?

Lunar month

**SOLUTION**

**Lunar month** : The period of 28 to 30 days from one new moon day to the next new moon day is called a lunar month.

**Exercises | Q 4. (d) | Page 10**

What is meant by each of the following terms?

Tithi

**SOLUTION**

**Tithi**: Every day in the lunar month is called tithi.

**Exercises | Q 5. (a) | Page 10**

**Answer the following questions.**

What is the equator?

**SOLUTION**

An imaginary circle present between the North and the South pole is called the equator.

**Exercises | Q 5. (b) | Page 10**

**Answer the following questions.**

What are the two parts of the earth made by the equator?

**SOLUTION**

The Northern hemisphere and the Southern hemisphere are the two parts of the earth made by the equator.