

Chapter- 10

Light, Sound and Force

STUDY NOTES

LET'S LEARN

LIGHT

- The sun is the main source of light on the earth.
- Light helps us to see the world around us.
- Objects which give us light are called luminous objects. Ex. candles, lamps, torches, bulbs etc.
- Objects which do not give light are called non-luminous objects. Ex. table, chair, ball, teddy bear etc.

LUMINOUS OBJECTS



CANDLE



LAMP



BULB



TORCH

NON-LUMINOUS OBJECTS



TABLE



CHAIR



BALL

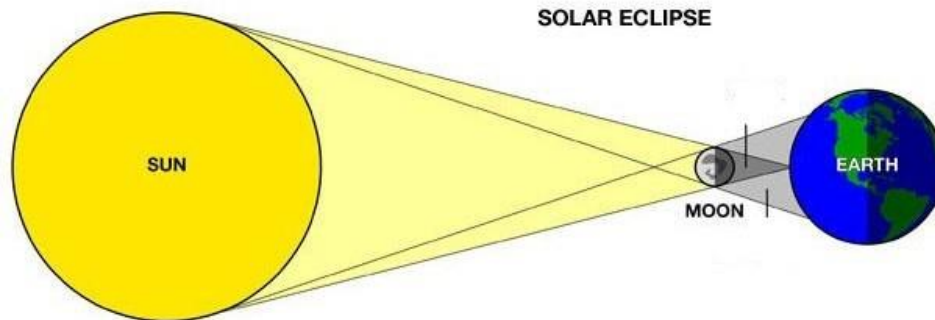


TEDDY BEAR

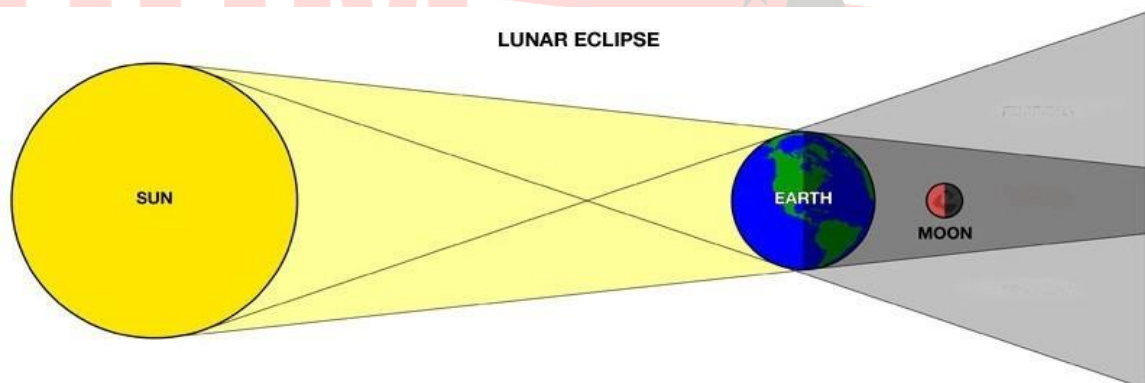
SHADOW

- Light travels in a straight line as thin beams of rays.
- When the path of light is blocked by an object a shadow is formed.

- The earth revolves around the sun. The sun's light falls on the earth.
- The moon revolves around the earth.
- The moon reflects the light of the sun.
- A solar eclipse occurs when the moon blocks the light of the sun. The shadow of the moon falls on the earth and the sun cannot be seen or is partially hidden.



- A lunar eclipse occurs when the earth blocks the light of the sun. The shadow of the earth falls on the moon and the moon cannot be seen.



SOUND

We hear various types of sounds every day.

- The chirping of birds,
- The ringing of doorbells,
- The honking of horns and
- Mobile ringtones
- Speaking and laughing etc.

Types of sounds

- We hear different kinds of sounds every day. Some sounds make us feel happy while others irritate us.
- Some sounds are soft and pleasant. Like the sound of a guitar and soft music are

pleasing to the ears.

- Loud and unpleasant sounds are called noise. Like the loud noise made by the vehicles, loud music etc. are unpleasant to our ears.

FORCE

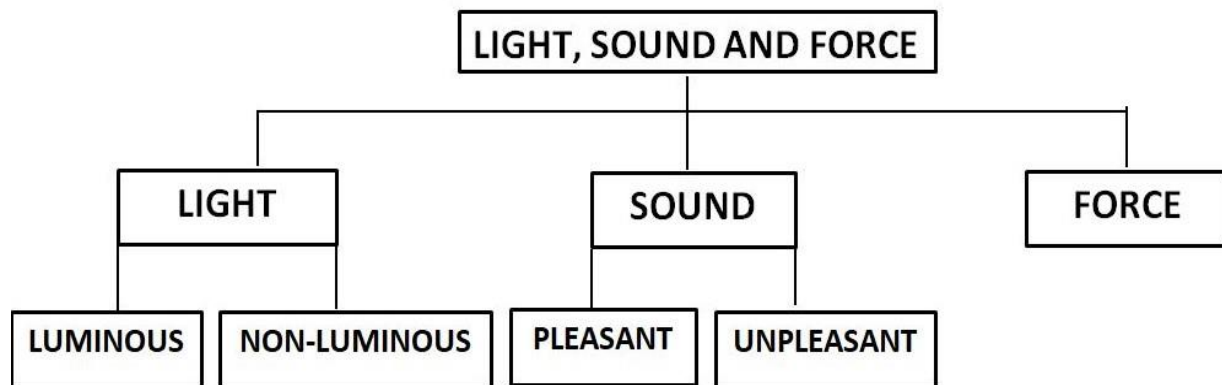
When we do some work, we are either pushing or pulling something. When we push or pull something we apply force and do work.

Force can do many things.

- Force can move an object.
- Force can stop a moving object.
- Force can change the shape of an object.



MEMORY MAP



Teacher's note

- Do a project on musical instruments. Pick any three instruments that you like. Paste their pictures in your project record and write about them. Mention how they are played and the kind of sounds they produce. Also write down the name of a famous player of each instrument.

Imrove your G.K.

- A ray of light travels very fast
- Light must enter our eyes so that we can see.
- Dogs are capable of hearing sounds at a much higher frequency than humans can.
- Flies cannot hear any kind of sound. Not even their own buzzing.
- Springs and elastic are also types of force.
- Sir Isaac Newton was one of the first scientists to study gravity and force.

Let's know more**I. Fill in the blanks.**

1. A solar eclipse occurs when the _____ blocks the light of the sun.
2. A lunar eclipse occurs when the _____ blocks the light of the sun.
3. A shadow is always formed on the _____ side of the light source.
4. Everyone gets disturbed by loud _____.
5. Some objects give us light are called _____ objects.

Let us answer*Changing your Tomorrow***A. Tick (✓) the correct answer.**

1. This is the main source of light on earth.

a. candle

b. Sun

c. Moon

2. Loud and unpleasant sounds

a. make us feel happy

b. irritate us

c. have no effect on us

3. When we push or pull something we apply force and

a. sleep

b. do work

c. do nothing

4. Force can do

a. nothing

b. one thing

c. many things

B. Name the following.

1. Light travels as thin beams of these. _____
2. This is formed when an object blocks the path of light. _____
3. This is caused by an unpleasant sound. _____

C. Answer these questions.

1. Name three luminous objects other than mentioned in this lesson.
2. Name three non-luminous objects other than mentioned in this lesson.
3. What can we do to reduce noise?
4. Mention three effects of force on an object.

Answer key

1. moon
2. earth
3. opposite
4. noise
5. luminous

A. 1-b 2-b 3-b 4-c

- B.**
1. Rays
 2. Shadow.
 3. Noise

C. 1. Ans: Three luminous objects are – stars, tubelight, fire.

2. Ans: Three non-luminous objects are – table, chalk and duster.

3. Ans: To reduce noise we should –

- avoid the use of horns as far as possible,
- speak softly,
- play music and TV at a low volume.

4. Ans: Three effects of force on an object are – it can move an object, it can stop a moving object and it can change the shape of an object.

