

Light, Shadow and Images

ORAL QUESTIONS

A. Answer these questions orally.

1. What is light?
2. Give an example of a natural luminous body.
3. A firefly is a natural luminous body. True or false?
4. Light is actually made up of four different colours, combined together. True or false?
5. Which of these are nonluminous bodies?
Burning candle, Chair, Firefly, Stars, Pencil box, Earth, Lighted bulb.

PUZZLES/QUIZ

B. Complete the following word ladder with the help of the clues given.

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- ACROSS:
1. A body which has and emits light of its own.
 3. The eclipse formed when the shadow of the Earth falls on the Moon.
 4. An object which does not allow light to pass through it.
 6. A substance which allows light to pass through it.
 7. The change in the direction of path of light, after striking an opaque surface.
- DOWN :
2. The darkness that an object causes when it prevents light from falling on another object.
 5. Shadow in the sky.
 8. A ray of light travelling from an object towards the mirror.

CLASS TEST

C. MCQ–Tick (✓) the correct option.

1. Which of the following statements is incorrect?
 - (a) Light travels in a straight line
 - (b) Light is a form of energy
 - (c) Light is made up of seven colours
 - (d) Light travels with a speed of 3 km per second
2. Which of these is a luminous object?
 - (a) Car (b) Tree
 - (c) Chair (d) Burning candle
3. A butter paper is an example of a
 - (a) Transparent object (b) Translucent object
 - (c) Opaque object (d) Luminous object
4. In a solar eclipse,
 - (a) The Earth comes between the Sun and the Moon.
 - (b) The Moon comes in between the Sun and the Earth.
 - (c) The Sun comes in between the Moon and the Earth.
 - (d) None of these.
5. Which of these is a correct statement?
 - (a) The objects which allow light to pass through them are opaque.
 - (b) A shadow is cast by transparent objects.
 - (c) Moon is a luminous body.
 - (d) Light does not get reflected from a mirror.

D. Very short answer questions.

1. What is a mirror?

2. What is reflection?

3. What is a shadow?

4. What is the main source of life on our planet, the Earth?

5. Does a glowing bulb emits light of its own like the Sun?

6. What do you understand by rectilinear propagation of light?

7. What does the size of a shadow depend on?

8. Can we see solar eclipse or lunar eclipse with naked eyes?

E. Short answer questions.

1. Differentiate between the following.

(a) Luminous objects and Nonluminous objects

LUMINOUS OBJECTS	NONLUMINOUS OBJECTS

(b) Image and Shadow

IMAGE	SHADOW

2. Light is the 'life generating energy' on the Earth. Why?

3. Which part of the Earth experiences day?

4. Which part of the Earth experiences night?

5. List any three surfaces where you can see your image, besides mirror.

6. What are the three essential conditions for the formation of a shadow?

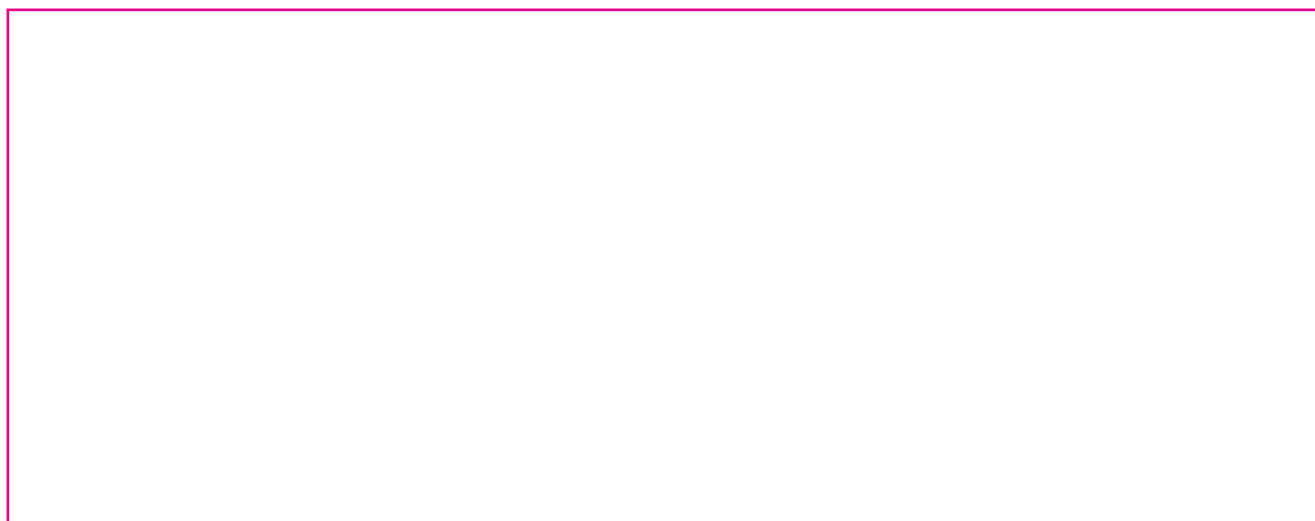
F. Long answer questions.

1. List the characteristics of light.

2. List the characteristics of shadow.

3. Explain the principle and working of a pinhole camera.

4. Explain the formation of a Lunar eclipse with the help of a diagram.



HOME ASSIGNMENT

G. Think and answer.

1. Jessica held a plane mirror in front of her in a completely dark room, but she could not see her reflection in the mirror. Why?

2. We are not able to see the tip of a lighted candle through a bent pipe. Why?

WORKSHEETS

H. Give reasons for the following.

1. A glowing lantern is considered an artificial luminous body.

2. A wooden board is considered an opaque object.
