



Shadow

A. Choose the Correct Answer:

1. What is a shadow?

- a) A reflection of an object
- b) A dark area formed when an object blocks light
- c) A source of light
- d) A glow around an object

2. Which of the following is necessary for the formation of a shadow?

- a) A mirror
- b) A transparent object
- c) A source of light and an opaque object
- d) An electric current

3. What happens to the size of a shadow when the object is moved closer to the light source?

- a) The shadow becomes smaller
- b) The shadow disappears
- c) The shadow becomes larger
- d) The shadow changes color

B. Fill in the Blanks:

1. A shadow is formed when an _____ object blocks the path of light.
2. The size and shape of a shadow depend on the position of the _____ source.
3. Shadows are always formed on the _____ side of the light source.

C. Case Study:

Riya was playing with a torch and a toy.

- When she held the toy close to the torch, the shadow on the wall appeared large.
- When she moved the toy away from the torch, the shadow became smaller.
- Her teacher explained that the closer the object is to the light source, the larger the shadow appears.
- When she placed a transparent glass in front of the torch, no shadow was formed.



Case Study Questions:

1. What happened to the shadow when Riya moved the toy closer to the torch?
2. How did the shadow change when she moved the toy away?
3. Why was no shadow formed when Riya placed a transparent glass in front of the torch?
4. What type of objects create clear shadows?

D. Short Answer Questions:

1. What is a shadow?
2. What are the three things required to form a shadow?
3. How does the position of the light source affect the size of the shadow?

E. Long Answer Questions:

1. Explain how shadows are formed with the help of an example.
 2. Describe how the size and shape of a shadow change with the position of the object and the light source.
 3. Why do transparent objects not form shadows, while opaque objects do?
- 