



# SHRING SHEFFIELD SCHOOL PATNA

Name: \_\_\_\_\_ Class VIII

**WORKSHEET-**  
**SUBJECT: Science**                      **CH: 16 Reflection of Light**

Q.I Complete the sentences.

1. Beautiful patterns are formed in Kaleidoscope due to \_\_\_\_\_
2. The phenomenon of left appearing right and right appearing left on reflection in a plane mirror is called \_\_\_\_\_
3. An optical device used to see objects which are not in direct line of vision is \_\_\_\_\_
4. The number of images of an object formed when two plane mirrors are placed parallel are \_\_\_\_\_
5. The science that deals with the study of light and its properties is called \_\_\_\_\_
6. State the kind of reflection that occurs by a—
  - a) New stainless steel plate.
  - b) Ceiling of a room.

Q.II Answer the following.

1. Draw a ray diagram to locate the image formed by a plane mirror. Write the characteristics of the image formed.
2. State any two uses of Periscope.
3. With the help of diagrams explain the difference between regular and irregular reflection.
4. Differentiate between the image formed by a concave mirror and plane mirror.
5. Write English Alphabets (Capital) as seen in a plane mirror.
6. What happens to the number of image formed as the angle between two inclined plane mirror decreases?

Q.III Solve these numericals.

1. If the angle between two inclined plane mirrors is  $5^\circ$ . Find the number of images formed?
2. If the sum of angles of incidence and reflection is  $160^\circ$ , what is the —
  - a) Angle of incidence.
  - b) Angle between incident ray and the reflecting mirror surface.
3. A ray of light strikes a plane mirror making angle  $15^\circ$  to its surface, find —
  - a) Angle of incidence.
  - b) Angle of reflection.
  - c) Angle between incident ray and reflected ray.
4. If 20 cm tall object is placed at a distance of 40 cm from a plane mirror, find —
  - a) Nature and size of the image formed.
  - b) Image distance.
  - c) The distance between object and its image if the object is moved by —
    - i. 10 cm towards the mirror.
    - ii. 15 cm away from the mirror.

**1) Complete the following.**

- a) Friction always opposes \_\_\_\_\_ of a body on a surface.
- b) Sliding friction is \_\_\_\_\_ than the static friction.
- c) Friction produces \_\_\_\_\_.
- d) Sprinkling of powder on the carom board \_\_\_\_\_ friction.
- e) Ball bearings convert \_\_\_\_\_ friction into \_\_\_\_\_ friction.
- f) Cars and speedboats are \_\_\_\_\_ to reduce drag
- g) The friction when something moves through a liquid or a gas is called \_\_\_\_\_
- h) \_\_\_\_\_ on the tyres of vehicles increase friction.
- i) A frictional force is an example of ----- force.
- j) Birds have ----- bodies.

**2) What kind of friction comes into play?**

- a) When a block of wood kept on a table moves slowly.
- b) When a block of wood kept on a table on applying force remains in the state of rest
- c) When a block of wood kept on cylindrical iron rods moves.

**3) Give one word for the following**

- a) The tyres used in racing cars
- b) The SI unit in which frictional force is measured.
- c) The frictional force applied by fluids.
- d) The branch of science that deals with the study of reducing air resistance is called

**4) Choose the odd one out**

- a) Ship, Cycle, Airplane , Bird
- b) Fine powder, oil, grease, soil.

**5) Answer the following**

- a) What the factors on which the magnitude of friction depends?
- b) What kind of tyres do racing cars have? Why?
- c) What are lubricants? Which lubricant is used in parts of heavy machines?
- d) What is friction commonly known as? Explain why?
- e) Give three ways of limiting friction.
- f) Spacecrafts are provided with heat shield. Why?
- g) What is streamline shape? Explain the advantage of this shape to birds and aquatic animals.
- h) What causes friction?