

THE ASIAN SCHOOL, DEHRADUN

WORKSHEET

CLASS: VIII

SUBJECT: SCIENCE

CHAPTER: LIGHT

PHYSICS

MULTIPLE CHOICE QUESTIONS:

- Image of an object is formed on which part of the eye?
a) Iris b) Optic nerve c) Pupil d) Retina
- Which of the following statements is correct?
a) Cones are sensitive to bright light. b) Rods are sensitive to bright light.
c) Pupil controls the amount of light. d) The transparent front part of an eye is called Iris.
- Which of the following statement is/are correct according to the laws of reflection?
i) The angle of incidence is always equal to the angle of reflection.
ii) The angle of reflection is equal to the angle formed by the normal with the surface.
iii) The incident ray, the reflected ray and the normal-all lie in the same plane.
a) i only b) ii and iii c) i and iii d) iii only
- White light disperses into _____ colours.
a) four b) five c) seven d) eight.
- What is the near point of a normal human eye?
a) 20 cm b) 25 cm c) 30 cm d) 40 cm

MATCH THE FOLLOWING:

- | | |
|-----------------------|------------------------------------|
| a) Kaleidoscope | i) Healthy eyes |
| b) Braille System | ii) Blind spot |
| c) Vitamin A | iii) Multiple reflection |
| d) No sensory cell | iv) Smooth Surface |
| e) Regular Reflection | v) For visually challenged people. |

TRUE OR FALSE:

- A periscope uses two plane mirrors.
- Diffused reflection occurs due to the irregularities present in the reflection surface.
- Braille system has 70 dot patterns or characters.
- Images formed by a plane mirror are always erect.
- The angle of reflection is smaller than the angle of incidence.

FILL IN THE BLANKS:

- The ray of light that strikes a surface is called the _____ ray.
- A smooth and shiny surface shows _____ reflection.
- At the junction of optic nerve and retina, a _____ is present.
- Rods are sensitive _____.
- The lack of vitamin A causes _____.

SHORT ANSWERS:

- List the difference between the reflection and the dispersion of light.
- Why is the word AMBULANCE written in reverse on the ambulance vehicle?
- What is the function of iris in the human eye?
- Find out the angle of incidence of a ray of light if it is reflected at angle of 45° .
- How can we form multiple images of an object?
- What are the types of the nerve cells present in the retina?
- What are main sources of vitamin A?

LONG ANSWERS:

- Explain the ways by which you can take care of your eyes.
- What is the Braille system? How is it helpful?
- Explain and draw the structure of the human eye.
- Define reflection. State the laws of reflection.

- e) i) Write the characteristics of image formed by a plane mirror.
ii) What is lateral inversion?

ACTIVITY:

- a) What is periscope? How does it work? Find out about it with the help of the internet.
b) How many members of your family use spectacles? Do they use spectacles to see the objects close to them or distant objects? What type of lenses do they use?

SUBJECT: CHEMISTRY

CHAPTER: COMBUSTION AND FLAME

MULTIPLE CHOICE QUESTIONS:

- Which of the following substances is not combustible?
a) Paper b) Glass c) Wood d) Dry leaves
- Which of the following is not an essential requirement for combustion?
a) Presence of combustible substance. b) Presence of Oxygen.
c) Attainment of ignition temperature of substance. d) Presence of Nitrogen.
- Name the gas used in fire extinguishers.
a) Carbon dioxide b) Carbon Monoxide c) Hydrogen d) Sulphur dioxide
- In a candle flame, the _____ zone is the zone of complete combustion.
a) Dark b) luminous c) Non-luminous d) Blue.
- What is the unit for expressing the calorific value of fuels.
a) kJ b) kg c) kJ/mg d) kJ/kg

FILL IN THE BLANKS:

- An iron nail is a _____ substance.
- A substance does not burn if its temperature is below its _____ temperature.
- Combustion of LPG is an example of _____.
- There are _____ zones in a flame.
- _____ is produced by the incomplete combustion of fuels.

TRUE OR FALSE:

- Fuels exist in solid & Liquid states only.
- Inflammable substances have very low ignition temperature.
- Water cannot be used for extinguishing fires caused by kerosene.
- In rapid combustion, a substance starts burning on its own without the application of heat from any external source.
- CNG causes much less pollution than petrol or diesel.

IDENTIFY THE ODD ONE OUT:

- LPG, Coal, CNG, Methane.
- Stone, Glass, Ceramic, Paper.
- LPG, Petrol, Wood, Alcohol.
- Charcoal, Petrol, Kerosene, Wax.
- Carbon dioxide, Water, Sand, Oxygen.

SHORT ANSWER:

- Why is combustion called a chemical change?
- Why can't water be used for extinguishing fires caused by electricity?
- How is rapid combustion different from spontaneous combustion?
- Why do dry leaves burn more easily than freshly fallen leaves?
- Our of coal & LPG, which is a better fuel? Give reasons to justify your answer.
- How does carbon dioxide help in extinguishing fires?
- Why does a slightly moist piece of paper take time to burn?
- An iron needle is to be heated in a candle flame till it turns red hot. In which part of the flame will it be heated the fastest?

LONG ANSWER:

- State the characteristics of a good fuel.
- How will you prove that oxygen is necessary for combustion to take place?

3. What are different zones in a candle flame? Explain the characteristics of each with the help of a well labeled diagram.
4. Describe how combustion of fuels affects the environment.
5. Find out the precautions that are taken while handling and transporting LPG cylinders.

SUBJECT: BIOLOGY

CHAPTER: REPRODUCTION IN ANIMALS

MULTIPLE CHOICE QUESTIONS:

1. In which of the following organisms does budding take place?
a) Human b) Amoeba c) cow d) Hydra
2. The fusion of male and female gamete produces.
a) an embryo b) a zygote c) a foetus d) a tadpole
3. Which of the following animals is not an oviparous animal?
a) Fish b) Dog c) Frog d) Bird
4. Sperms are produced in the
a) testis b) penis c) fallopian tube d) sperm duct
5. In which of the following animals internal fertilization takes place?
i) Fish ii) Cow iii) Starfish iv) Hen
a) i and ii b) ii and iv c) i and iv d) ii and iii

MATCH THE FOLLOWING:

- | | |
|---------------------------|-----------|
| 1. External fertilization | a) Ovum |
| 2. Female gamete | b) Hydra |
| 3. Budding | c) Frog |
| 4. Metamorphosis | d) Amoeba |
| 5. Binary fission | e) Fish |

TRUE OR FALSE:

1. Hydra reproduces through binary fission.
2. Fertilization is an important part of asexual reproduction.
3. In human beings, the embryo gets implanted in the wall of the uterus for further development.
4. The ovary produces female gamete called ova.
5. A sperm is a single cell.

FILL IN THE BLANKS:

1. _____ is formed by the fusion of the male and female gametes.
2. _____ fertilization is very common in aquatic animals.
3. In a hen, the embryo develops into a chick in about _____.
4. In yeast, asexual reproduction takes place through _____.
5. Amoeba is a _____ celled organism.

SHORT ANSWER:

1. List the difference between viviparous and oviparous animals.
2. a) What is metamorphosis?
b) How does the embryo develop in frogs?
3. What is the role of the fallopian tube in fertilization?
4. The eggs of frog safely stay in water without having a protective shell around them. How?

LONG ANSWER:

1. Explain the process by which a zygote changes into a baby in humans.
2. How does the asexual reproduction take place in hydra?

ACTIVITY:

1. With help of the internet, find out if external fertilization can occur in humans?
2. You must have heard about twin brothers or twin sisters among your friends. Find out how fertilization occurs in such cases. Name types of twins.