

INTERNATIONAL INDIAN SCHOOL, RIYADH
SA-2 SCIENCE WORKSHEET 2015-2016
CLASS: VIII

CHAPTER : 4 METALS AND NON METALS

I. Answer the following:

1. Which property of metals makes them useful as wires?
2. What is the green material formed on copper when it is exposed to moist air for a long time?
3. Which property of the metals makes them useful as ringing bells?
4. Identify the most reactive and the least reactive metal amongst the following:
Aluminium, Potassium, Copper, Iron, Zinc, Gold.
5. What happens when iron is put into copper sulphate solution?
6. State the nature of non-metallic oxides.
7. State the nature of metallic oxides.
8. What happens when non-metals react with water?

II. Name the following:

1. A metal which exists in liquid state: _____
2. The naturally occurring hardest substance: _____
3. A non-metal which is a good conductor of electricity: _____
4. Two soft metals which can be cut with knife: _____
5. Any three non-metals: _____
6. A non-metal used in water purification: _____
7. The gas produced on reaction of metals with bases: _____
8. The property of metals by virtue of which they can be beaten into thin sheets: _____

CHAPTER: 6 COMBUSTION AND FUELS

I. Fill in the blanks:

1. LPG, petrol and alcohol are _____ substances.
2. The hottest region of a candle flame is called _____.
3. Incomplete combustion of fuels releases poisonous _____ gas in the air.
4. Increased percentage of carbon-dioxide in the air has been link to _____.
5. _____ Zone of a candle flame is the coolest region.
6. The head of safety match nowadays contains _____ and _____.

7. Burning of fossil fuels release gaseous oxides of _____, _____ and _____ in the air.
8. Combustible substances are also called _____.
9. Unburnt carbon particles in the air are dangerous pollutants causing _____ diseases.

II. Name the following:

1. The fuel with highest calorific value : _____
2. The fuel with lowest calorific value: _____
3. Any two air pollutants related to acid rains: _____
4. Any two inflammable substances: _____
5. The gas which helps in combustion: _____
6. Two common fire extinguishers: _____
7. Any two chemicals which can be used as alternative source of CO₂ for putting off fires:

III. Choose the correct answer:

1. A good fuel should have _____ ignition temperature. (High /medium/low)
2. _____ is responsible for outbreak of disastrous fires in coal mines.
(Spontaneous combustion/rapid combustion/ explosion)
3. _____ form of fuels have the highest calorific value. (Solid/Liquid/Gaseous)

III. Define the following:

- (a) Combustion b) Calorific value c) Ignition temperature d) Inflammable substances

IV. Answer the following questions:

1. State four characteristics of a good fuel.
2. Burning of a candle produces flame while burning of charcoal does not. Give reason.
3. State two adverse effects of global warming.

CHAPTER:7 CONSERVATION OF PLANTS AND ANIMALS

I. Fill in the blanks:

1. Some natural causes of deforestation are _____ and _____.
2. The plants and animals found in a particular area are termed as _____ and _____.
3. _____ species are those species of plants and animals found exclusively in a particular area.

4. _____ is made of plants, animals and microorganisms in an area along with the non-living components such as climate, soil, river etc.
5. _____ is the source book which keeps a record of all the endangered species.
6. Species which have disappeared from this earth are called _____ species.
7. _____ refers to the variety of plants, animals and microorganisms found in an area.

II. Define the following:

1. Endangered species 2. Endemic species 3. Migration 4. Biosphere 5. Biodiversity
6. Sanctuary 7. National Park 8. Biosphere reserve 9. Extinct species

CHAPTER:8 CELL-STRUCTURE AND FUNCTIONS

I. Fill in the blanks:

1. Organisms made of more than one cell are called _____ organisms.
2. The single celled organisms are called _____ organisms.
3. In amoeba, the change in shape is due to the formation of _____ which facilitates movement and help in capturing food.
4. Cells were discovered in cork by _____.
5. _____ organelle is the control centre of the cell.
6. Cells having well organized nucleus with nuclear membrane are called _____ cells.
7. Cells without well-organized nucleus i.e. is lacking nuclear membrane are called _____ cells.
8. The dense spherical body found in the nucleus of a cell is called _____.
9. A _____ is a group of similar cells performing a specific function.

II. Choose the correct answer:

1. Which part of the cell contains the organelles like mitochondria, ribosomes etc.?
 (a) Nucleus (b) Protoplasm (c) Cytoplasm
2. Which is the outermost layer of an animal cell?
 (a) Cell wall (b) Cytoplasm (c) Cell membrane
3. Which is the living substance of the cell?
 (a) Protoplasm (b) Nucleoplasm (c) Cytoplasm
4. Which organelle is called the power house of the cell?
 (a) Mitochondria (b) Ribosomes (c) Nucleus
5. Cell wall is an outer thick layer found in cells of:
 (a) Amoeba (b) Bacteria (c) Animal

III. Name the following:

1. The largest cell which can be seen with unaided eye.
2. The coloured bodies found only in plant cells.
3. Any two examples of eukaryotes.
4. Any two examples of prokaryotes.
5. Any two unicellular organisms.
6. Any two multicellular organisms.
7. The human cell which can change its shape.
8. The human cell having branched structure.
9. The unit of inheritance in living organisms.
10. The basic structural unit of all living organisms.

CHAPTER 9- REPRODUCTION IN ANIMALS

I. Name the following

1. Two modes by which animals reproduce.
2. The production of an exact copy of a cell or any other living part.
3. The process that ensures the continuity of similar kinds of individuals.
4. The fertilised egg.
5. The type of fission in Amoeba.
6. Two animals which show metamorphosis.
7. Babies born through the technique of *invitro* fertilisation.
8. Two animals showing external fertilisation.
9. Two animals showing internal fertilisation.
10. The scientist who cloned an animal for the first time successfully.

II. Differentiate between oviparous and viviparous organisms.

III. Tick the correct answer

1. Which one is not an oviparous animal?
(a) Hen (b) Frog (c) Man (d) Butterfly
2. Hydra reproduce by:
(a) Fragmentation (b) Binary fission (c) Multiple fission (d) Budding
3. Tadpole is the developing stage of :
(a) Human (b) Frog (c) Fish (d) Dog
4. A type of cloned sheep is:
(a) Dolly (b) Molly (c) Jolly (d) Ewe

5. The fusion of male and female gametes is called
(a) Fertilization (b) Metamorphosis (c) Fission (d) Budding

CHAPTER 10- REACHING THE AGE OF ADOLESCENCE

I. Name the following:

1. The hormone produced when one is very angry or worried.
2. The chemicals secreted by endocrine glands
3. The disease caused due to lack of insulin production.
4. The hormone that controls metamorphosis in frogs.
5. The mineral required for metamorphosis in frogs.
6. The gland which controls the activity of other endocrine glands.
7. The hormone which maintains the correct salt balance in the blood.
8. Any three glands which release their secretions through ducts.
9. The hormone produced by thyroid gland and the disease caused due to lack of its production.
10. The gland attached with the brain.

II. Answer the following:

1. How many pairs of chromosomes are found in the nucleus of a human cell?
2. Why are endocrine glands termed as ductless glands?

CHAPTER 11 : FORCE AND PRESSURE

I. Fill in the blanks

1. A push or pull on an object is called a _____.
2. The state of motion of an object is described by its _____ and the _____ of motion.
3. The force resulting due to the action of muscles is known as _____ force.
4. Muscular force is also called as _____ force.
5. The force exerted by a magnet and electrostatic force are examples of _____ force.
6. Every object in the universe exerts a force on every other object called a _____ force.
7. The force acting on a unit area of a surface is called _____.
8. Pressure in liquids _____ with the increase in depth of the liquid column.

II. Choose the correct answer:

1. Which of the following will exert the maximum pressure on ground while moving?
a) an elephant b) A girl wearing a pencil heel c) Rhinoceros d) Camel

2. Force can change:
- a) Only position of object
 - b) Only speed of object
 - c) Only direction of moving object
 - d) All the above
3. Which of the following is not a non-contact force?
- a) gravitational force
 - b) electrostatic force
 - c) muscular force
 - d) All of them
4. A force has:
- a) magnitude
 - b) direction
 - c) both of them
 - d) None of them
5. Which type of force is acting when hair is being pulled by a charged comb?
- a) Contact force
 - b) Non-contact force
 - c) both of them
 - d) None of them

CHAPTER: 12- FRICTION

I. Fill in the blanks:

1. The force of friction always acts in the _____ direction to the applied force.
2. _____ comes into play when we try to move an object at rest.
3. _____ comes into play when an object is sliding over other object.
4. Sliding friction is always _____ than static friction.
5. Friction can be _____ by using lubricants.
6. Friction is the force which _____ the relative motion between two surfaces.
7. Friction can be increased by making a surface _____.
8. The friction force exerted by fluid is also called _____.
9. The common name of gases and liquids is _____.
10. The device used for measuring the force acting on an object is _____.

II. Answer the following

1. Name two methods of reducing friction.
2. Why are the soles of shoes and tyres of cars, truck etc. grooved?
3. Define friction.
4. What is the cause of friction?
5. How can be the fluid friction minimized?

CHAPTER: 13- SOUND

I. Fill in the blanks.

1. To and fro or back and forth motion of an object is called _____.
2. In humans, the sound is produced by the _____ or the _____.
3. _____ are stretched across the voice box or larynx.
4. The vocal cords in men are about _____ mm long.
5. Noise becomes physically painful at _____ dB.
6. Frequency determines the _____ of a sound.
7. _____ on the roadside and elsewhere can reduce noise pollution.
8. _____ and _____ are two important properties of sound.
9. _____ senses the vibrations of sound.

II. Name the following

1. An instrument used for investigating and tracking many medical problems.
2. The major causes of noise pollution.
3. The sources in homes which may lead to noise.
4. Any two examples of objects which produce sounds of low frequency or low pitched.
5. Any two examples of objects which produce sound of high frequency or high pitched.

CHAPTER 14- CHEMICAL EFFECTS OF ELECTRIC CURRENT

I. Fill in the blanks:

1. Distilled water is a _____ conductor of electricity.
2. The dissociation of chemicals into ions due to the passing of electricity through it is called _____ of electricity.
3. The distilled water becomes _____ of electricity on dissolving salt in it.
4. _____ are the wires/rods/plates through which electricity enters and leaves an electrolyte.
5. The longer lead of LED is always connected to the _____ terminal of the battery.
7. The passage of electric current through liquids causes _____ effects of electricity.
8. In galvanization, coating of _____ on iron is done to protect it from corrosion.

II. Answer the following:

1. Name two liquids that conduct electricity.
2. What is LED?
3. Define Electroplating
4. Name some materials around you which conduct electricity.
5. Name some materials around you which do not conduct electricity.

CHAPTER:15- NATURAL PHENOMENON

I. Fill in the blanks

1. The process of transferring of charge from a charged object to the earth is called _____.
2. The electrical charges produced by rubbing are _____ charges.
3. When charges move, they constitute an _____.
4. Earthing is provided in buildings to protect us from _____.
5. The device which is used to test whether an object is carrying charge or not is called _____.
6. The process of electric discharge between clouds and the earth or between different clouds causes _____.
7. Like charges _____ each other while unlike charges _____ each other.

II. Answer the following questions:

1. Define: lightning conductor

CHAPTER 16 : LIGHT

I. Answer the following question :

1. Name the angle between the normal and the incident ray.
2. Name the angle between the normal and the reflected ray.
3. Name the small opening present in Iris.

II. Fill in the blanks:

1. Visually challenged persons can read and write using _____ system.
2. In an image formed by a plane mirror, the left of the object appears on the right and vice-versa. This is known as _____
3. Splitting of light into its colours is known as _____
4. Our eyes see everything around us due to _____ light.

III. Choose the correct answer :

1. When we say that a person has black, blue or green eyes, we refer actually to the colour of
a. Lens b. Cornea c. Iris d. Pupil
2. The lens focuses light on the back of the eye, on a layer called
a. cornea b. retina c. lens d. pupil
3. Among the following which cells are sensitive to bright light
a. rods b. cones c. Both d. None
4. Among the following which cells are sensitive to dim light.
a. rods b. cones c. Both d. None of them
5. An owl can see very well in night but not during the day because:
a. It has more no. of cones and only a few rods
b. It has more no. of rods and only a few cones
c. Same no. of cones and rods

CHAPTER: 17 STARS AND THE SOLAR SYSTEM

I. Answer the following:

1. What is a light year?
2. What is a satellite? Name the first artificial satellite launched by India.
3. How do artificial satellites help in our lives?
4. Why does the Pole Star appear to be stationary from earth?
5. Why do we see only a part of the moon?

II. Name the following:

1. The large number of rocks that lie between the orbits of Mars and Jupiter.
2. The brightest planet of the solar system.
3. The red planet of the solar system.
4. The yellow planet of the solar system.
5. The largest planet of the solar system.
6. The smallest planet of the solar system.
7. The largest planet of the solar system.
8. The outer and inner planets.
9. The second nearest star to our earth.
10. The least dense planet of the solar system.

CHAPTER :18 POLLUTION OF AIR AND WATER (ASSIGNMENT)

I. Name the following:

1. Contamination of air.
2. The gas produced due incomplete burning of fossil fuels.
3. The undesirable substances released into the air.
4. Two methods to reduce air pollution by the automobiles in Delhi.
5. Water suitable for drinking.
6. Some greenhouse effect gases.
7. The disease suffered by the Taj Mahal.
8. The gas used in the ACs and several sprays causing air pollution.

II. Answer the following:

- Q1. What is potable water?
- Q2. Name some diseases caused due water pollution?
- Q3. What is Green house effect?
- Q4. State three methods of purifying water.
- Q5. When was the Ganga Action Plan launched? What is its aim?