

INTERNATIONAL INDIAN SCHOOL
Lesson – 3 Synthetic Fibres and Plastics

Class VIII

Subject: General Science

- Fibres which are obtained from natural sources are called **natural** fibres. Example – cotton, silk, wool, etc.
- Fibres which are man-made are called man-made or **synthetic** fibres. Example – rayon, nylon, polyester, acrylic, etc.
- **Rayon** is obtained from wood pulp. Rayon resembles **silk**, so it is also known as artificial silk.
- **Nylon** was the first commercially synthesized fibre. **Nylon** is synthesized from coal, water and air.
- **Polyester** is one of the most popular man-made fibre **which** is used in making clothes. Fabrics made from polyester fibre are almost **wrinkle-free**, easy to wash and have shiny appearance.
- **Acrylic** resembles wool so it is also known as artificial **wool** or synthetic wool.
- **Plastic** is also a polymer. Plastics are non- reactive, **poor conductors** and light, strong and durable.
- Plastic is a non-biodegradable substance. Disposal of **plastic waste** is a major concern as it cannot be even burnt. Burning the plastic can result in release of many harmful gases in the atmosphere. This can lead to air pollution.

Fill in the blanks

1. Cotton is a natural polymer made of **cellulose**.
2. The uniforms of firemen have coating of **melamine** plastic to make them flame resistant.
3. Artificial silk is obtained by chemical treatment of **wood pulp**.
4. Synthetic fibres are synthesized from raw materials called **petrochemicals**.
5. **Polycotis** is a mixture of polyester and cotton.

Name the following

1. The plastic on which oil and water do not stick. (**Teflon**)
2. The first fully synthetic plastic. (**Bakelite**)
3. The chemicals which give fruits their smell. (**Esters**)
4. The raw material is used to make nylon. (**Coal, water and air**)
5. The material which is commonly used for making kitchen containers. (**PET- Polyethylene terephthalate**)

INTERNATIONAL INDIAN SCHOOL – DAMMAM

CLASS VIII - GENERAL SCIENCE

CHAPTER-4 MATERIALS – METALS AND NON-METALS

(2017-18)

I. Choose the correct option.

1. Metals can be given different shapes according to our needs because of their :
(*Malleability, Ductility, Sonority, conductivity*).
2. Which of the following metal can be cut with a knife?
(*Copper, Iron, Sodium, Aluminium*)
3. Metal present in Haemoglobin.
(*Copper, magnesium, Iron, Aluminium*)
4. Metals react with Oxygen to produce.
(*Metal Carbonates, Metal Sulphates, Metal Hydroxides, Metal Oxides*).
5. Metals react with Acids to produce.
(*Carbon dioxide, Oxygen, Hydrogen, Nitrogen*)
6. Metals react with Sodium Hydroxide to produce
(*Carbon dioxide, Oxygen, Hydrogen, Nitrogen*)

II. Fill in the blanks.

1. A solution of Magnesium oxide can change _____ litmus into _____.
2. All Metals except _____ exists as solid at room temperature
3. Metals react with Acids to give salt and _____ gas.
4. When the oxide of carbon is dissolved in water, we get _____
5. The property of metals by which they possess a shining surface is _____
6. To prevent the contact of phosphorous with _____ it is stored in water.
7. Rust is the oxide of _____.
8. The dull green coating on the unused copper vessel is the mixture of _____ & _____

III. Name the following.

1. The smallest unit of an element.
2. Name the property of metals used in making :
 - a) Aluminium foil
 - b) Jewellery
 - c) Cable wire
 - d) School bells
3. Non-metal used in water purification process
4. Reaction in which more reactive metals replace less reactive metals from their solution
5. Metals used in making industrial gadgets.

IV. Correct the statements.

1. Magnesium oxide is acidic in nature
2. Copper displaces zinc from Zinc sulphate solution
3. Copper react with dilute hydrochloric acid to produce hydrogen gas.
4. Silver foil is used to decorate sweets is due to ductility of silver
5. Solution of sulphur dioxide changes red litmus to blue

V. Answer the following.

1. Compare physical and chemical properties of metals and non-metals.
2. Explain displacement reaction with example
3. List out uses of metals and non-metals

INTERNATIONAL INDIAN SCHOOL – DAMMAM

CLASS : VIII

SUB: G. SCIENCE

L-9 REPRODUCTION IN ANIMALS

WORKSHEET

I. Name the following:

1. The two modes by which animals reproduce.
2. The male gametes.
3. The female gametes.
4. The fertilised egg.
5. Animals which lay eggs.
6. Animals which give birth to young ones.
7. The process of transformation of larva into an adult through drastic changes.
8. The first mammal to be cloned.
9. The bulges observed on the sides of the body of hydra.
10. The stage of the embryo in which all the body parts are identified.

II. Fill in the blanks:

1. Reproduction resulting from the fusion of male and female gametes is called _____.
2. The male reproductive organs include _____ & _____.
3. The female reproductive organs are _____ & _____.
4. The fusion of egg and sperm is called _____.
5. _____ egg is the largest.
6. The zygote divides repeatedly to give rise to an _____.
7. Fertilisation that takes place inside the female body is called _____.
8. Cloning of an animal was successfully performed for the first time by _____.
9. Babies born through IVF technique are called _____.
10. _____ is essential for continuation of species.

III. Match the following:

- | | |
|-------------|------------|
| 1. Hydra | Oviparous |
| 2. Silkworm | Budding |
| 3. Hen | Viviparous |

4. Amoeba Metamorphosis

5. Dog Binary Fission

IV. Choose the correct option

1. The type of asexual reproduction in Hydra.
(a) Binary Fission (b) Budding (c) Spore Formation.
2. The type of asexual reproduction in Amoeba.
(a) Fragmentation (b) Budding (c) Binary Fission (d) Spore Formation.
3. Fertilised egg is called.
(a) Foetus (b) Zygote (c) Gamete (d) Embryo.
4. A larva develops into an adult by the process of :
(a) Fertilisation (b) Budding (c) Metamorphosis (d) Binary Fission.
5. Internal fertilisation occurs in:
(a) Cows (b) Fish (c) Humans (d) Both a and c.

V. Complete the life cycle of the following:

- (a) Silkworm: egg _____, _____
- (b) Frog : egg _____, _____

VI. State True or False. If false correct the statement.

1. Fertilisation that takes place outside the female body is called internal fertilisation.
2. Sperm is a single cell.
3. The type of reproduction in which a single parent is involved is called sexual reproduction.
4. External fertilisation takes place in hens.
5. Amoeba is a multi cellular organism.

VII. Answer the following:

1. Why do fishes and frogs lay eggs in hundreds.
2. Differentiate between:
(a) Sexual and asexual reproduction.
(b) Internal and external fertilisation.
(c) Oviparous and viviparous animals.
3. Define (a) Budding (b) Binary Fission (c) Metamorphosis.

INTERNATIONAL INDIAN SCHOOL, DAMMAM

CLASS VIII GENERAL SCIENCE WORKSHEET (2017 – '18)

L – 10 REACHING THE AGE OF ADOLESCENCE

I. Choose the correct option.

1. The hormone secreted by pancreas.
a. Pancreatic juice b. thyroxine c. insulin d. adrenalin
2. A gland which releases its secretions through ducts.
a. Pancreas b. thyroid gland c. pituitary gland d. salivary gland
3. The male sex hormone.
a. Testes b. sperm c. testosterone d. estrogen
4. The number of chromosomes in human beings.
a. 23pairs b. 46pairs c. 26pairs d. 22pairs
5. The number of chromosomes in sperm cell.
a. 23 b. 46 c. 26 d. 44

II. Fill in the blanks

1. Metamorphosis in frogs is controlled by the hormone _____
2. If a sperm containing X chromosome fertilizes the egg, then the resulting offspring would be -----
3. The protruding voice box in boys is called the _____
4. Growth hormone is produced by the _____ gland.

III. Name the following

1. Four iron rich foods
2. Four vitamin A rich foods
3. Two glands whose activity leads to pimples and acne
4. Six endocrine glands
5. Sex chromosomes in male and female
6. Another term for teenage.

IV. Correct the false statement

1. Goitre is disease of the pancreas.
2. Salivary gland is an endocrine gland.
3. The changes that mark the onset of puberty are controlled by sex chromosomes.
4. Lack of iodine in food leads to anaemia.
5. Metamorphosis is the sudden change from the egg to adult.

V. Match the following

- | | |
|--------------------|--------------|
| 1. AIDS | Pancreas |
| 2. Chromosomes | Oil |
| 3. Puberty | X and Y |
| 4. Insulin | Testosterone |
| 5. Sebaceous gland | HIV |
| 6. Adrenal gland | Adolescence |
| 7. Hormone | Larynx |
| 8. Voice box | Adrenalin |

I Fill in blanks:

1. Only vibrating bodies produce _____
2. The number of vibrations per second is defined as _____
3. Noise becomes physically painful above _____ decibels
4. Loudness of sound is proportional to _____ of the amplitude of the vibration(Square)
5. Higher the _____ of vibration, higher is the pitch and shriller is the sound
6. Time taken by an object to complete one oscillation is called _____
7. Annoying sound is due to _____
8. Sound cannot travel through _____
9. In humans, sound is produced due to the vibration of the _____ stretched across the _____
10. For human ear the audible frequency is from _____ to _____

II Choose the correct answer:-

1. Pitch of sound depends on _____ of the vibrating body
a) amplitude b) frequency c) loudness d) height of the vibration
2. Sound can travel through _____
a) Solids only b) vacuum c) solids, liquids and gases d) none of these
3. Sounds having frequency more than 20,000 Hz is
a) Supersonic b) infrasonic c) Ultrasonic d) Sonar
4. Amplitude of sound wave decides its -
a) Speed b) Pitch c) loudness d) Source
5. The time period of a pendulum is 0.02 second. What is its frequency? ($T = 1/F$)
a) 0.5Hz b) 0.02 Hz c) 5 Hz d) 50 Hz

III Correct the following statements

1. Regular vibrations produce noise.
2. Vibration of the larynx produces sound in humans.
3. The loudness of sound is measured in Hertz.
4. A sound with small amplitude is louder than one with large amplitude.
5. Loudness is the number of vibrations per second

IV. Name the following

1. The unit used to express loudness of sound
2. The motion of a pendulum is called
3. The unit used to express pitch of Sound
4. Vibrating stretched membrane in ear that helps us to hear
5. The SI unit of Frequency

INTERNATIONAL INDIAN SCHOOL

GMS

WORKSHEET

Class: VIII Sub: Science

CH: 14 Chemical Effects Of Electric Current

I. Name the following

1. Two substances which are good conductors of electricity.
2. Two devices which can detect weak electric current.
3. Three substances which when dissolved in distilled water make it a good conductor of electricity.
4. The British chemist, who discovered the electrolysis of water.
5. The gas formed on the positive electrode during electrolysis of water.

II. Fill in the blanks:

1. Most of the liquids that conduct electricity are solutions of _____, _____ and _____.
2. A coating of Zinc is deposited on iron, while making bridges to protect it from _____ and _____.
3. For making gold plated ornaments gold is connected to the _____ terminal of the battery.
4. Distilled water is free of _____ and is a poor conductor of electricity.
5. The filament of a bulb get red hot and it glows when electric current passes through it due to the _____ effect of electric current.

III. Match the Following:

- | A | B |
|----------------|--------------------------|
| 1) LED | a) does not corrode |
| 2) Chromium | b) weak electric current |
| 3) Carbon rods | c) Insulator |
| 4) Compass | d) Traffic signal lights |
| 5) Wood | e) Electrolysis of water |

IV. Choose the correct answer:

1. Chromium is widely used in electroplating in industry because;
a) It has shining appearance b) It does not corrode
c) It resists scratches d) All the above properties
2. Tin cans are used for storing food because
a) Tin is less reactive than iron b) Iron is less reactive than tin
c) Iron will not corrode d) Tin will corrode fast
3. If you want to get a coating of copper on carbon rod, copper is connected to the _____ terminal of the battery.
a) positive b) negative
c) either positive or negative d) none of these

4. LED bulbs are used in lighting because;
 - a) It consume less electricity
 - b) It has longer life time
 - c) Both a & b
 - d) None of the above

5. Sea water is an example of
 - a) Insulator
 - b) good conductor
 - c) both a & b
 - d) none of these

6. During electrolysis of water, bubbles of _____
 - a) O₂ gas is produced
 - b) H₂ gas is produced
 - c) both a & b are produced
 - d) none of these

7. During purification of copper, a thick rod of impure copper is connected to the _____ terminal of the battery
 - a) positive
 - b) negative
 - c) either positive or negative
 - d) none of these

V. Write True or False, if False correct the statement

1. Distilled water is a good conductor of electricity.
2. Electrolysis is the process of depositing a layer of any desired metal by means of electricity.
3. Electroplating is one of the most common applications of magnetic effect.
4. In a circuit, the longer lead of LED always connected to the negative terminal of the battery.
5. Common salt is added to the water during electrolysis to make it a poor conductor of electricity.

VI. Answer the followings:

1. Define: a) Tester b) LED c) electrolysis of water
2. Differentiate between conductors and Insulators with examples.
3. Give Reason:
 - a) We should never handle electrical appliances with wet hands or while standing on a wet floor.
 - b) Zinc is deposited over iron when constructing bridges.
4. What is electroplating? Draw a simple electric circuit showing electroplating.
5. Write any 3 applications of electroplating.
6. List some chemical effects of electric current.
7. Classify the following as good conductor and poor conductor of electricity
 - a) Lemon juice
 - b) Rubber
 - c) distilled water
 - d) sea water
 - e) wood
 - f) Hydrochloric Acid

INTERNATIONAL INDIAN SCHOOL

CLASS 8th - SCIENCE WORKSHEET (2017-2018)

LESSON 18 - POLLUTION OF AIR AND WATER

FILL IN THE BLANKS

1. Incomplete burning of fuels produces carbon monoxide which is a poisonous gas.
2. India celebrates Van Mahotsav every year in the month of July in which lakhs of trees are planted across the country.
3. Chlorofluorocarbons used in refrigerators damages the ozone layer of the atmosphere.
4. Pesticides and weedicides which are sprayed on the crops for their protection are also poisonous chemicals.
5. The diseases like Cholera, Typhoid and Jaundice are caused due to pollution of water.
6. An ambitious plan to save the river called Ganga Action Plan was launched in 1985.
7. Discharge of harmful chemicals into rivers and streams causing pollution of water is called chemical contamination.
8. Compressed Natural Gas and Liquefied Petroleum Gas are the cleaner fuels.
9. Ozone layer protects us from harmful Ultra Violet rays of the Sun.
10. We can save water by remembering the 3R's Reduce, Reuse and Recycle.

NAME THE FOLLOWING:

1. The effect by which earth's temperature is increasing (greenhouse effect).
2. The poisonous gas which reduces the oxygen carrying capacity of the blood (carbon monoxide).
3. The refineries which are major sources of gaseous pollutants like sulphur dioxide and nitrogen dioxide (petroleum refineries).
4. The water which is purified and fit for drinking (potable water).
5. The gas which is found highest by volume in air (nitrogen).
6. The gas which is not a pollutant unless present in excess (carbon ^{di}monoxide)
7. The substances which contaminate with air and water (pollutants).
8. The type of pollution which causes death of aquatic life (water pollution).
9. The gas which is primarily responsible for global warming (carbon dioxide).
10. The refinery which has contributed towards the yellowing of the marble of Taj Mahal (Mathura oil refinery).

DEFINE THE FOLLOWING:

1. Acid rain – Oxides of Sulphur and Nitrogen reacts with water vapour present in the atmosphere to form sulphuric acid and nitric acid. When these come down with the rain, it makes the rain acidic. This is called acid rain.
2. Greenhouse gases – Besides carbon dioxide other gases like methane, nitrous oxide, water vapour also contribute to greenhouse effect. These gases are called greenhouse gases.
3. Smog – It is made up of smoke and fog. Smoke contains oxides of nitrogen and other pollutants. The smog causes breathing difficulties such as asthma, cough and wheezing in children.

ANSWER THE FOLLOWING QUESTIONS:

1. What is Ganga Action Plan?

An ambitious plan to save the river called the Ganga Action Plan was launched in 1985. It aimed to reduce the pollution levels in the river.

2. Name the sources of air pollutants?

The sources of air pollutants are factories, power plants, automobiles exhausts, burning of fire wood and dung cakes.

3. What is meant by marble cancer?

Statues and structures made of marble and lime stone slowly get corroded as the rain water containing the acids falls on them. Both sulphuric and nitric acids dissolve marble to form salts. Acid rain corrodes the marble of monuments. This phenomenon is called marble cancer.
