Brain International School

Vikas Puri, New Delhi

REVISION SHEET

SUBJECT: SCIENCE **CLASS-VIII** **TERM 2**

Chapter 2: Microorganisms: Friend and Foe

1. Choose the correct option:

i. What is the mode of transmission of the plant disease, citrus canker?

a) insect b) air c) seeds d) water

ii. Who discovered the bacterium causing Anthrax disease?

a) Robert Brown b) Robert Hooke c) Robert Koch d) Robert Boyle

2. In each of the following questions, two statements are given one labelled. Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions the codes (a), (b), (c) and (d) as given below:

a) Both A and R are true, and R is correct explanation of the assertion.

b) Both A and R are true, but R is not the correct explanation of the assertion

c) A is true, but R is false

d) A is false, but R is true.

(i) Assertion: The replenishment of soil with nutrients is done by some microorganisms.

Reason: Fungi and bacteria are common decomposer.

(ii) Assertion: Vaccination does not protect us from infectious diseases.

Reason: Vaccines help the body develop immunity.

\ **3. Answer the following question.**

1. What is the difference between Antibiotics and Antibodies?
2. Why milk in polypacks does not get spoiled?
3. How do microorganisms clean the environment?
4. What is 'dehydration' of food? In what way is this technique useful?
5. Give two uses of microorganisms in the following areas:

(a) Food industry

(b) Medicinal use

4. Answer the following case study-based questions

Megha, a Class 8 student, was asked to submit a project report on mosquito transmitted diseases. She visited a nearby hospital where her aunt was staffed as a nurse. Her aunt took her to a patient suffering from malaria. Megha talked to the patient and asked him about his health and also took some flowers for him.

(i) Name the mosquito that spreads malaria.

(ii) What is the name given to such organisms that transmit the diseases from infected to healthy persons?

(iii) How can we control the spread of diseases by mosquitoes?

Chapter 4:Combustion and flame

1. Choose the correct option:

i. A mixture of antimony trisulphide, potassium chlorate, and white phosphorus, along with glue and starch, was applied to the head of a suitable wood match. Which of the following chemicals ignites when struck against a rough surface?

(a) Antimony trisulphide (b) White Phosphorous

(c) Glue (d) Starch

(ii) Which of the following is not an inflammable substance?

(a) Alcohol (b) Wood (c) Ethanol (d) Liquified Petroleum Gas

2. In each of the following questions, two statements are given one labelled. Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions the codes (a), (b), (c) and (d) as given below:

a) Both A and R are true, and R is correct explanation of the assertion.

b) Both A and R are true, but R is not the correct explanation of the assertion

c) A is true, but R is false

d) A is false, but R is true.

(i) **Assertion**: Water is commonly used to control fire.

Reason: Any fire can be extinguished with water.

(ii) Assertion: Coal burns but iron does not burn easily.

Reason: Iron has a high ignition temperature.

3. Answer the following question.

1. What is calorific value? How is it related to the efficiency of combustion?

2. When does the fuel burn with blue color flame and when does it burn with yellow color flame?

3. Draw a labelled diagram of a candle flame and explain what happens in each zone.
4. In an experiment 5 kg of a fuel was completely burnt. The heat produced was measured to be 200,000 kJ. Calculate the calorific value of the fuel.
5. Explain types of combustion and conditions under which combustion can take place.

4. Answer the following case study-based questions

Students of your school went for a camp and gathered wood to light a fire for cooking. They tried to light the wood with a matchstick, but it did not catch fire. Someone suggested using kerosene, but none was available. Another suggested lighting dry leaves first, but there were no dry leaves. Finally, a student used petroleum jelly (Vaseline) smeared on cloth to light the fire.

(i) Why could the wood not be set on fire by the matchstick?
(ii) Why use of dry leaves was suggested?
(iii) Explain acid rain and its consequences.

Chapter 5: Conservation of Plants and Animals

1. Choose the correct option:

i A group of population capable of interbreeding is called as:

(a) flora (b) fauna (c) species (d) class

ii. Which amongst the following is not the consequence of deforestation?

(a) Biodiversity equilibrium (b) Flash floods
(c) Droughts (d) Soil erosion

2. In each of the following questions, two statements are given one labelled. Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions the codes (a), (b), (c) and (d) as given below:

a) Both A and R are true, and R is correct explanation of the assertion.
b) Both A and R are true, but R is not the correct explanation of the assertion
c) A is true, but R is false
d) A is false, but R is true.

(i) Assertion: Conservation of biodiversity is important for maintaining ecological balance.
Reason: Biodiversity loss can lead to ecosystem instability.

(i) Assertion: Endemic species are found only in a particular area.
Reason: They cannot survive in any other habitat.

3. Answer the following question.

1. What do you mean by endemic species? Give some examples.
2. Give two reasons which are responsible for migration of animals.
3. Recycling of paper is the better option than making papers from raw materials. Why?
4. What are the factors responsible for disturbing biodiversity for a particular area?
5. State the importance of forest.

4. Answer the following case study-based questions

Biosphere reserves are the areas meant for the conservation of biodiversity. As you are aware that biodiversity is a variety of plants and animals and microorganisms generally found in an area. The biosphere reserves help to maintain the biodiversity and culture of that area. A biosphere reserve may also contain other protected areas in it. In India, we have 18 such biosphere reserves and exploring them go beyond just exploring the national parks they host.

(i) What do you mean by flora?

(ii) Name two wildlife sanctuaries present in Pachmarhi Biosphere Reserve.

(iii) How does deforestation lead to frequent floods and droughts?

Chapter 7: Reaching Age of Adolescence

1. Choose the correct option:

i The beginning of menstruation at puberty is called

a) ovulation b) menstruation c) menarche d) menopause

ii. In males, the sex chromosome consists

a) one X and one Y b) both X and X

c) both Y and Y d) one M and one X

2. In each of the following questions, two statements are given one labelled. Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions the codes (a), (b), (c) and (d) as given below:

a) Both A and R are true, and R is correct explanation of the assertion.

b) Both A and R are true, but R is not the correct explanation of the assertion

c) A is true, but R is false

d) A is false, but R is true.

(i) Assertion: The embryo gets embedded in the wall of the uterus.

Reason: The uterus provides a suitable environment for the development of the embryo.

(ii) Assertion: Change in height, voice, and body shape are signs of puberty.

Reason: Several changes observed during adolescence are called puberty.

3. Answer the following question.

1. Why do boys have hoarse voice at puberty?
2. Explain menarche and menopause.
3. Why does the pelvic area of girls become wider during puberty?
4. Explain the Sex determination in unborn baby.
5. Name the hormone which would be released during the following situations:
   a) a frightened person.
   b) growth of a child to adult.
   c) development of caterpillar to moth.
   d) development of tadpole to frog

4. Answer the following case study-based questions

Dr. Ramesh explained that the changes they were experiencing were part of adolescence, the period of life when a child's body develops into an adult's body. He talked about how the pituitary gland releases certain hormones that trigger these changes. These hormones are responsible for the development of secondary sexual characteristics, such as a deepening voice for boys and breast development in girls. Dr. Ramesh also mentioned how both boys and girls experience emotional changes during adolescence, along with physical growth spurts.

As they listened to Dr. Ramesh, Ravi and Meera became more curious about their own development and how it's a natural part of growing up.

(i) Explain the role of the pituitary gland during adolescence.

(ii) What is the cause of the changes in human body during puberty?

(iii) Explain in detail the reproductive phase of life in humans.

Chapter 9: Friction

1. Choose the correct option:

i Friction can be reduced by using

a) oil b) grease c) powder d) all of these

ii. Which of the following is not an example of smoothy surfaces?

a) surface of mirror b) surface of wet soaps

c) glazed tiles d) surface of tyres

2. In each of the following questions, two statements are given one labelled. Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions the codes (a), (b), (c) and (d) as given below:

a) Both A and R are true, and R is correct explanation of the assertion.

b) Both A and R are true, but R is not the correct explanation of the assertion

c) A is true, but R is false

d) A is false, but R is true.

(i) Assertion: Machine oil is used for smooth working of machines.

Reason: Lubrication reduces friction.

(ii) Assertion**:** The handle of a cricket bat or a badminton racket is usually rough.

Reason**:** Rough surfaces decrease friction.

3. Answer the following question.

1. What is the function of ridges on your palm and bottom of your feet?
2. What would happen if there were no force or friction? Imagine and describe in your own words.
3. What do you mean by fluid friction? How can fluid friction be reduced?
4. While travelling on a rickshaw, you might have experienced that if the seat cover is very smooth, you tend to slip when brakes are applied suddenly. Explain.
5. Sports cars come with very special shapes. Explain.

4. Answer the following case study-based questions

Ravi noticed that he could walk easily on a rough road, but he slipped while walking on a polished marble floor. He also observed that athletes wear shoes with spikes during races.

(i) Why does Ravi slip on a polished marble floor?

(ii) Why is walking easier on a rough surface?

(iii) Why do athletes wear shoes with spikes?

Chapter 10: Sound

1. Choose the correct option:

i The normal length of vocal cords in man is

a) 30 mm b) 20 mm c) 25 mm d) 35 mm

ii. High frequency of sound vibrations will produce a

a) high pitched sound b) loud sound

c) meak sound d) low pitched sound

2. In each of the following questions, two statements are given one labelled. Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions the codes (a), (b), (c) and (d) as given below:

a) Both A and R are true, and R is correct explanation of the assertion.

b) Both A and R are true, but R is not the correct explanation of the assertion

c) A is true, but R is false

d) A is false, but R is true.

(i) Assertion: Loud sounds can damage our ears.

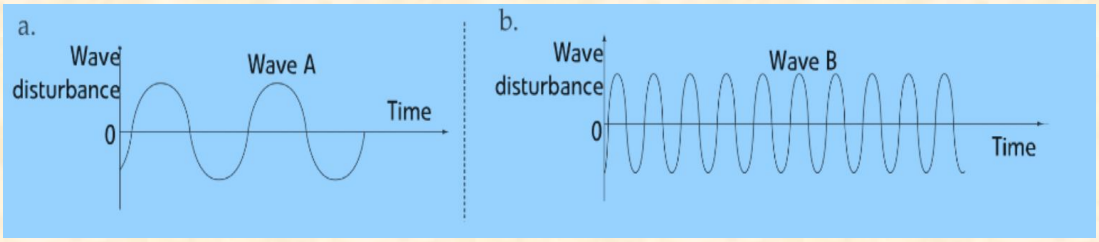
Reason: Loud sounds have small amplitude vibrations.

(ii) Assertion**:** Sound travels fastest in solids.

Reason**:** Particles in solids have very weak intermolecular forces.

3. Answer the following question.

1. A sound wave has a frequency of 256 Hz. Calculate its time period.
2. Which of the following waves has a higher pitch and why?



3. Explain causes and effects of noise pollution and suggest preventive measures.
4. What is ear drum? How does it play an important role in hearing?
5. With the help of a diagram explain how a pendulum completes one oscillation. Also mark its mean position and amplitude.

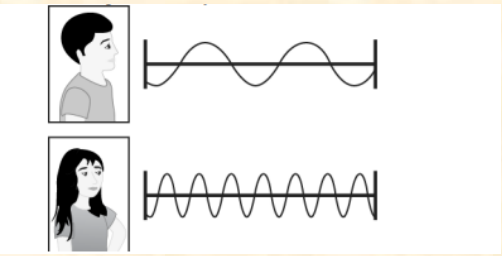
4. Answer the following case study-based questions

Two students are at two ends of a room. One of the students claps softly but other student is unable to hear the sound. The student takes a long metal rod and asks his friend to put the ear on the rod at the other end. The student taps the metal rod with the same intensity and the sound is heard by his friend.

(i) What can be concluded by the above observation?

(ii) Mention your experience when you touch a sound producing school bell?

(iii) A student learns that the sound travels in a waveform. The image shows the sound waves produced by a man and a woman. What can be concluded from the image?



Chapter 11: Chemical Effects of Electric current

1. Choose the correct option:

i Which is not a non-electrolyte?

a) sugar solution b) urea c) sodium chloride d) ethyl alcohol

ii. Which is not the conductor?

a) copper b) iron c) plastic d) graphite

2. In each of the following questions, two statements are given one labelled. Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions the codes (a), (b), (c) and (d) as given below:

a) Both A and R are true, and R is correct explanation of the assertion.

b) Both A and R are true, but R is not the correct explanation of the assertion

c) A is true, but R is false

d) A is false, but R is true.

(i) Assertion: The presence of chemicals and impurities makes rainwater a good conductor of electricity.
Reason: When water falls down as rain drops, many impurities dissolve in it which makes it a good conductor.

(ii) Assertion: Water can be decomposed into hydrogen and oxygen by heating to a very high temperature.
Reason: The chemical effects of electric current are used to decompose various chemical compounds into their elements.

3. Answer the following question.

1. What are insulators? Give two examples.
2. Define electrolysis. Through diagram represent movement of ions during electrolysis.
3. What are the advantages and disadvantages of electroplating?
4. You are provided with a magnetic compass, an empty matchbox, a battery of two cells and connecting wires. Using these objects, how will you make a tester for testing an electric circuit?
5. Give reasons for the following:

a) Operating electrical appliances with wet hands is very dangerous.

b) Sodium chloride solution is a good conductor of electricity.

c) Pure water is a poor conductor of electricity.

4. Answer the following case study-based questions

Sita and her mother reached a jewellery shop to purchase some ornaments. She liked a necklace very much but her mother told her not to purchase it because it is not real gold. When she checked the information tag, it was written that 1gm gold. The necklace was quite big and heavy. She was surprised to see it and asked about it. The salesman explained that it is a gold-plated necklace. Then Sita checked that the process of depositing a layer of any desired metal on another material by means of electricity is called electroplating. It is one of the most common applications of the chemical effects of electric current. Nowadays, people prefer to buy gold-plated jewellery, similarly, iron articles are often coated with zinc or chromium to protect them from rusting and corrosion.

(i) Where and how the electroplating waste should be disposed of?

(ii) What are the effects produced by the chemical reactions brought about by an electric current?

(iii)Name the materials that can be used for electroplating.

Chapter 12: Some Natural Phenomena

1. Choose the correct option:

i. Lightning always follows

a) a thunder. b) rain pour c) the easiest path. d) a straight path.

ii. Tsunami means.

a) earthquake b) floods c) earthquake under the sea. d) eruption of volcano in a sea.

2. In each of the following questions, two statements are given one labelled. Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions the codes (a), (b), (c) and (d) as given below:

a) Both A and R are true, and R is correct explanation of the assertion.

b) Both A and R are true, but R is not the correct explanation of the assertion

c) A is true, but R is false

d) A is false, but R is true.

(i) Assertion: During lightning, the air around the lightning path becomes very hot.

Reason: Electric current passing through air produces heat.

(ii) Assertion: A charged balloon can attract small pieces of paper.

Reason: Charged objects exert electric force on neutral objects.

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3. Answer the following question.

1. What are seismic zones?
2. Describe an earthquake and explain its causes.
3. During the construction of a building the lightning conductor was left hanging in the air by mistake. Would the lightning conductor be still effective? Explain.
4. Explain how charges are produced in clouds during a thunderstorm.
5. Explain the role of a seismograph with the help of diagram.

4. Answer the following case study-based questions

Lightning is a natural phenomenon caused by the build-up of electrical charges in the atmosphere, usually within clouds. During a thunderstorm, air currents cause water droplets and ice particles to collide with each other, leading to a separation of charges. The upper part of the cloud becomes positively charged, while the lower part becomes negatively charged. As the charge difference increases, it creates a strong electric field. When this field becomes intense enough, it causes the charges to discharge suddenly in the form of lightning. The lightning can either occur within a cloud, between two clouds, or between a cloud and the ground. This discharge releases a huge amount of energy in the form of light and heat, which causes the flash of lightning and the sound of thunder that follows.

(i) What do you think is the role of air currents in the development of thunderstorms and lightning?

(ii) In your opinion, why do we see the flash of lightning before we hear thunder?

(iii) Why do you think lightning conductors are placed on tall buildings? Why are they important?

Chapter 13: Light

1. Choose the correct option:

i. Name the type of mirrored used as a back view mirror.

a) plane mirror. b) concave mirror. c) convex mirror. d) any of these.

ii. The splitting of white light into its seven constituent colors is called.

a) refraction b) dispersion c) deviation d) reflection

2. In each of the following questions, two statements are given one labelled. Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions the codes (a), (b), (c) and (d) as given below:

a) Both A and R are true, and R is correct explanation of the assertion.

b) Both A and R are true, but R is not the correct explanation of the assertion

c) A is true, but R is false

d) A is false, but R is true.

(i) Assertion: A plane mirror always forms an image of the same size as the object.
Reason: The image formed by a plane mirror is virtual and erect.

(ii) Assertion: The image formed by a convex mirror is smaller than the object.
Reason: A convex mirror diverges light rays.

\ **3. Answer the following question.**

1. What is regular and diffuse reflection?
2. How is the phenomenon of reflection used in making a kaleidoscope? What are the applications of a kaleidoscope?
3. What precautions should you take for health of your eyes?
4. Why in old ages the eyesight becomes foggy? How can this defect be removed?
5. Explain the internal structure of human eye. Also discuss the function of various parts of the eye.

4. Answer the following case study-based questions

Light is a form of energy which makes things visible. We are able to see when light reflects from the surface of an object and falls on the eye. Our eye has a lens that focuses the light onto the screen called retina. As we grow old the shape of the lens might change, due to this the image either form in front of the retina or behind it but not on the retina which leads to development of defects of the eye. Spectacles can be used by the persons with eye defects to see properly, it has lenses that helps in focusing light onto the retina.

(i) Explain the function of iris.

(ii) What type of image is formed on the retina?

(iii) How are rods different from cones?