

INTERNATIONAL INDIAN SCHOOL BURAIDAH
WORKSHEET FOR THE ACADEMIC YEAR 2026-27

Class-8th Subject: Science

CHAPTER 02: THE INVISIBLE LIVING WORLD: BEYOND OUR NAKED EYE

A: CHOOSE THE CORRECT OPTION:

1. What type of microorganism is yeast?
(a) Algae (b) Protozoa (c) Bacteria (d) Fungi
2. Which gas is released during yeast fermentation that makes the dough rise?
(a) Oxygen (b) Nitrogen (c) Carbon dioxide (d) Hydrogen
3. Which microorganism helps in curd formation?
(a) Lactobacillus (b) Rhizobium (c) Spirulina (d) Mould
4. Rhizobium bacteria live in the root nodules of which plants?
(a) Wheat and rice (b) Beans and peas (c) Mango and banana (d) Apple and orange
5. What is the function of Rhizobium?
(a) Produces alcohol (b) Kills viruses (c) Traps nitrogen from the air (d) Forms algae
6. Which of the following is unicellular?
(a) Human (b) Yeast (c) Mould (d) Tree
7. Spirulina is an example of
(a) Virus (b) Protozoa (c) Microalga (d) Fungus
8. Which scientist first used the term 'cell' to describe the basic unit of life, after observing a thin slice of cork under a microscope?
(a) Antonie van Leeuwenhoek (b) Robert Hooke (c) Louis Pasteur (d) Alexander Fleming
9. Which feature makes bacteria different from animal and plant cells?
(a) Presence of cell wall (b) Absence of cytoplasm (c) Unicellular structure
(d) Lack of well-defined nucleus
10. What turns lime water milky in the yeast experiment?
(a) Oxygen (b) Nitrogen (c) Carbon dioxide (d) Alcohol

B: FILL IN THE BLANKS:

1. The basic unit of life in all living organisms is the _____.
2. _____ bacteria present in the root nodules of legumes help fix nitrogen for the plant.
3. The green pigment present in plant cells is called _____.
4. The main parts of a typical cell are cell membrane, _____, and nucleus.

5. Microorganisms such as Rhizobium help in _____ fixation in leguminous plants.
6. The _____ provides structural support and shape to plant cells.
7. _____ is a jelly-like substance found inside cells that contains all the cell organelles.
8. In the balloon experiment, the balloon inflates due to the gas released by _____.
9. The _____ is a selectively permeable membrane that surrounds all cells.
10. Microorganisms grow best when there is enough warmth, moisture, air, and _____.

C: TRUE or FALSE

1. The lime water test is used to detect the presence of carbon dioxide gas.
2. Only bacterial cells have chloroplasts to carry out photosynthesis
3. All microorganisms are harmful and cause diseases.
4. Bread becomes softer and fluffier because yeast releases carbon dioxide gas during dough fermentation.
5. The cytoplasm is only found in animal cells.

D: REASONING AND ASSERTION:

In the following questions, a statement of assertion (A) is followed by a statement of Reason (R). Choose the correct answer out of the following choices.

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

1. Assertion (A): The ostrich egg is considered the largest single cell in the living world.

Reason (R): All complex living organisms, whether plants or animals, begin their life as a single cell

2. Assertion (A): Rhizobium bacteria play a significant role in naturally enhancing the nitrogen content of soil, thereby improving its fertility and supporting better crop yield.

Reason (B): These bacteria live in specialized structures called foot nodules found in the roots of cereal crops such as wheat and rice.

E: ONE WORD ANSWER TYPE QUESTIONS:

1. Which part of the cell controls all its activities?
2. What is the outermost layer of a plant cell called?
3. Which microorganism is used in the production of alcohol?

4. Name the gas released during the process of fermentation.
5. What do we call the helpful bacteria found in the root nodules of leguminous plants?

F: ANSWER THE FOLLOWING QUESTIONS:

1. What is a vacuole?
2. How does yeast make dough soft and fluffy?
3. What are microalgae, and why are they important for the Earth?
4. Why is Spirulina called a “superfood”?
5. Describe the fermentation process using yeast and explain its importance in daily life, including experimental evidence.
6. Draw a well labelled diagram of a) a plant cell b) an animal cell

G: CASE BASED QUESTIONS:

1. Read the paragraph and answer the following questions.

During her visit to a village, Reema observed that her grandmother boiled drinking water and covered food properly. Curious, she left a slice of bread uncovered. The next morning, she noticed greenish-black patches on it. Her grandfather explained that invisible living organisms were responsible for the spoilage, and also told her that some microorganisms are useful in everyday life.

- (i) Reema left bread uncovered and found greenish-black patches the next day. What does this incident show about microorganisms?
 - (a) Microorganisms can only survive in cold conditions
 - (b) All microorganisms are harmful and poisonous
 - (c) Microorganisms grow quickly on moist, exposed food
 - (d) Microorganisms can only grow inside the human body
- (ii) Why is boiling water a useful practice in homes, especially in villages?
 - (a) It removes the taste of chlorine
 - (b) It destroys harmful microorganisms that may be present
 - (c) It helps cool the water faster
 - (d) It makes water smell fresh
- (iii) Reema’s grandfather explained that some microorganisms help in making curd from milk. Which bacteria is mainly responsible for this process?
 - (a) Rhizobium
 - (b) Lactobacillus
 - (c) Salmonella
 - (d) Streptococcus