

**NCERT Solutions For Class 8 Science Chapter 8:** NCERT Answers for Science Class 8 Chapter 8 Our team of subject matter experts has created Cell Structure and Functions to help students with their homework and test preparation.

Free NCERT Solutions are available from here in a chapter-by-chapter format for all classes and subjects. With the aid of these NCERT Solutions, students may learn everything there is to know about the definition of a cell, its various sorts, its components, its nucleus, its types, and the distinctions between plant and animal cells.

NCERT Solutions for Class 8 Science's Chapter 8 is a crucial resource because it covers the fundamentals of all biological studies. To comprehend the subjects covered in the upper classes, the student must pay attention to this issue. All of the questions in Chapter 8 of the NCERT Science Class 8 NCERT Solutions are addressed here.

Along with sample problems, questions from past years' question papers, CBSE sample papers, worksheets, additional questions, and advice on how to solve questions, it also contains exemplar problems.

## **NCERT Solutions For Class 8 Science Chapter 8 Overview**

The page contains the NCERT Solutions for Chapter 8's cell structure and Class 8 functions. Class 8's Chapter 8 covers the study of cell structure and function. It also discusses a comparison of plant and animal cells as well as the study of various cell organelles. Experts have carefully chosen NCERT Solutions to aid students in improving their comprehension of the subjects and achieving success on tests. Every significant question about the major subjects discussed in this chapter is addressed in the NCERT answers pdf.

Some of the most important lessons from the subjects this chapter covers are listed below.

The fundamental structural and functional unit of an organism is called a cell.

Cell theory states that all living things are composed of cells and that all cells originate from other cells.

In general, organisms can be divided into two groups according to the number of cells: unicellular and multicellular.

One cell makes for a unicellular creature.

A multicellular organism consists of several cells.

Prokaryotic and eukaryotic cells are the two basic cell types that are present in all living organisms.

The phrase "cell composition" refers to the nucleus, cytoplasm, nuclear membrane, cell membrane, organelles, and other essential components of the cell.

## **Key Topics Covered in Chapter 8 of Class 8 Science**

The following are the key topics that are covered in Chapter 8 of Class 8 Science.

- Discovery of the Cell
- The Cell
- Organisms show Variety in Cell Numbers Shape, Size
- Cell Structure, and Function,
- Parts of the Cell
- Comparison of Plant and Animal Cells.

## **NCERT Solutions For Class 8 Science Chapter 8**

Here we have provided NCERT Solutions for Class 8 Science Chapter 8 for the ease of students so that they can prepare better for their exams.

**1. Indicate whether the following statements are True (T) or False (F).**

**(a) Unicellular organisms have one-celled body. (T/F)**

**(b) Muscle cells are branched. (T/F)**

**(c) The basic living unit of an organism is an organ. (T/F)**

**(d) Amoeba has irregular shape. (T/F)**

**Soln:**

a) True

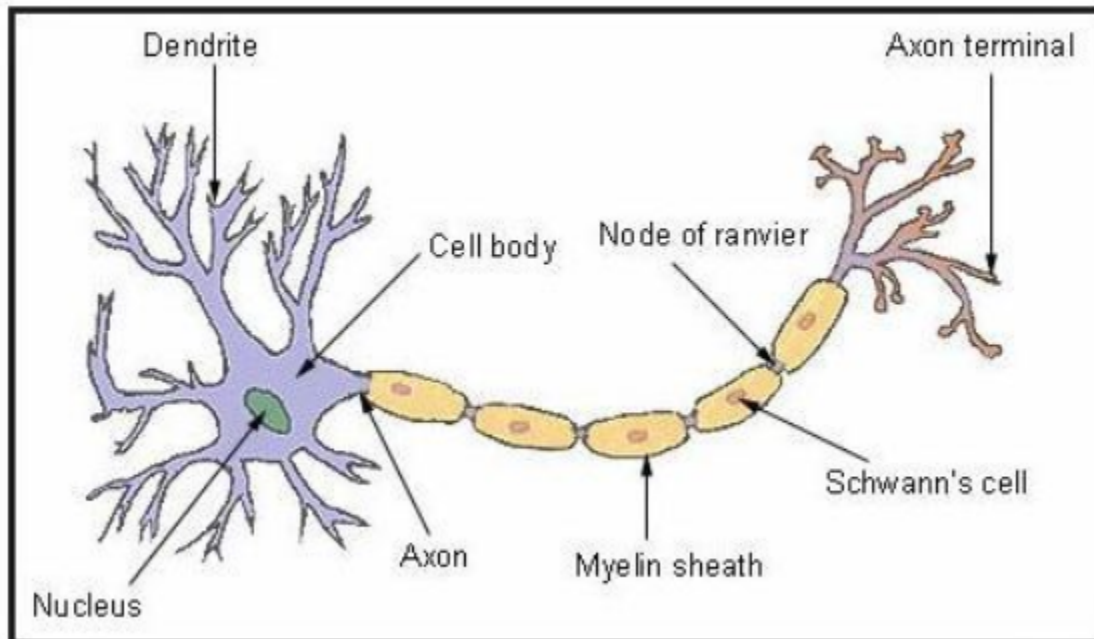
b) False

c) False

d) True

**2. Sketch the human nerve cell. What function do nerve cells perform?**

**Soln:**



Transmitting messages from receptor organs to the brain and vice versa is the primary job of the nerve cell. It is in charge of how various bodily parts function.

**3. Write short notes on the following.**

**(a) Cytoplasm**

**(b) Nucleus of a cell**

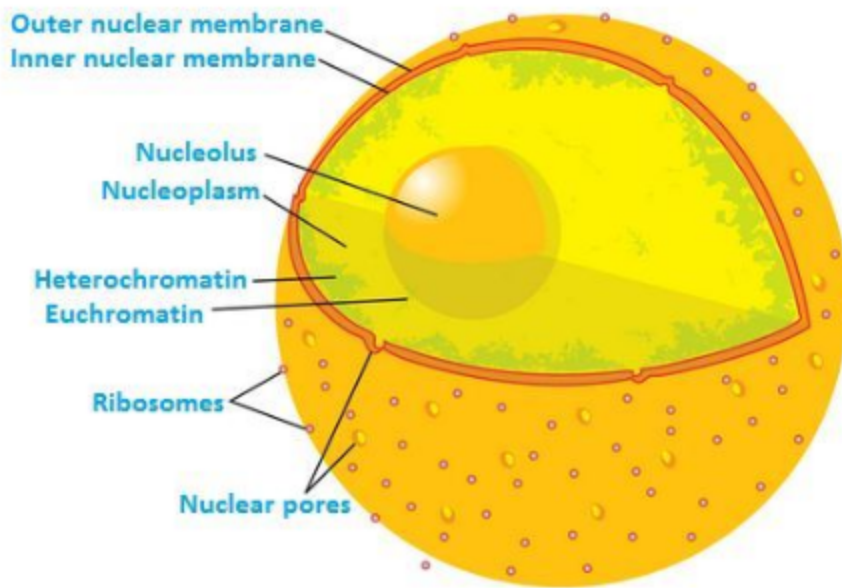
**Soln:**

**(a) Cytoplasm:**

All of the cell organelles, including mitochondria, ribosomes, Golgi bodies, and others, are found in the fluid known as cytoplasm. It is situated in the space between the plasma membrane and the nucleus. It facilitates material transfer across cell organelles. It is typically transparent and colorless, consisting of 80% water.

**(b) Nucleus of a cell:**

In eukaryotic cells, the nucleus is a double-membrane-bound cell organelle. It has genetic material, DNA, in it. It is spherical and serves as the cell's command hub. It consists of the following parts:



#### 4. Which part of the cell contains organelles?

**Soln:**

There are several different cell organelles in the cytoplasm. It is a colorless, transparent fluid that includes organelles such as Golgi bodies, ribosomes, and mitochondria.

#### 6. State the difference between eukaryotes and prokaryotes.

##### **Prokaryotes**

Most of them are unicellular

There is no nuclear membrane. So, the nucleus is poorly defined.

Not all cell organelles are present

Nucleolus is absent

For example, blue-green algae, Bacteria

##### **Eukaryotes**

Most of them are multicellular

There is a nuclear membrane. So, the nucleus is well-defined.

All the cell organelles are present.

Nucleolus is present

For example, plants, animal cells, and fungi.

#### 7. Where are chromosomes found in a cell? State their function.

**Soln:**

Genes are carried by thread-like structures called chromosomes, which are found in the nucleus. The genes contain every piece of information needed to pass on traits from one set of parents to the next. Only because of chromosomes is it possible to inherit features.

**8. “Cells are the basic structural units of living organisms”. Explain.**

**Soln:**

Cells make up a variety of parts of both plants and animals. It can perform every living function and is the smallest unit of life. They serve as life's fundamental components. Cells are known as "the basic structural and functional blocks of life" for this reason.

Cells come in a variety of sizes and forms and carry out a vast array of functions.

Their sizes and shapes correspond to the roles they play.

**9. Explain why chloroplasts are found only in plant cells.**

**Soln:**

Only plant cells include chloroplasts, plastids necessary for the food-producing process known as photosynthesis.

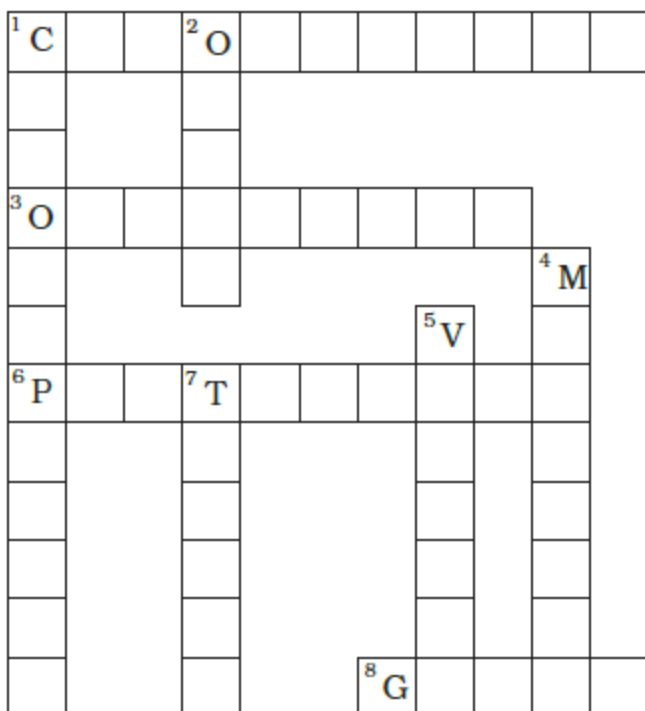
**10. Complete the crossword with the help of the clues given below.**

**Across**

- 1. This is necessary for photosynthesis.**
- 3. Term for component present in the cytoplasm.**
- 6. The living substance in the cell.**
- 8. Units of inheritance present on the chromosomes.**

**Down**

- 1. Green plastids.**
- 2. Formed by a collection of tissues.**
- 4. It separates the contents of the cell from the surrounding medium.**
- 5. Empty structure in the cytoplasm.**
- 7. A group of cells.**



**Soln:**

**Across**

1. Chlorophyll
2. Organelle
3. Protoplasm
4. Genes

**Down**

1. Chloroplast
2. Organ
3. Membrane
4. Vacuole
5. Tissue

## Benefits of NCERT Solutions For Class 8 Science Chapter 8

Here we have provided some of the benefits of the NCERT Solutions for Class 8 Science Chapter 8 -

1. Quick Summaries: You may quickly grasp the key concepts of this chapter by using clear and concise answers.
2. Simplified Learning: By breaking down complicated themes related to the chapter, a deeper understanding of the chapter is made possible.
3. Last-Minute Study: This helpful resource focuses on important aspects of the cell and offers a rapid and effective way to get ready for tests.
4. Enhanced Retention: Consolidates key information to improve recall while highlighting the unique challenges and adaptations of the cell.
5. Exam Support: This section provides strategic insights, key concepts, and study advice to assist with effective exam preparation. It also discusses many aspects of cell formation.
6. Time-Saving: Streamlines information, saving crucial study time.
7. Prioritised Topics: To provide a concentrated research strategy, it focuses on important issues and themes.
8. Real-world Connections: Students in Class 7 gain a deeper understanding of the chapter.