



STEPPING STONE
SCHOOL (HIGH)

CLASS :6

Subject: Biology

Date:1 /07/2020

Topic: Ch – 3 Cell- The Basic Unit of Life

Time Limit: 40 Mins

Worksheet No. 14

- Please read the chapters from your text book and the attached notes.
- Then work out the exercises in your note book henceforth.
- Ensure neat and tidy work.
- Do not write above the red line of the notebook pages.
- Use interleaf notebook and write with blue ink.
- Make a content page first with columns under the heads as given below:

CONTENTS

Date	Worksheet No.	Chapter No. and Name	Page No(s)	Teacher's signature

Instruction:- Please go through the video link given below to understand what is cell, cell theory, discovery of cell and cell diversity.

<https://youtu.be/fpQzcM4gNSs>

Good Day children !! Today we are back again with a new chapter 'Cell'- The Basic Unit of Life. So, today our learning objective will be :-

- Definition of cell
- Discovery of cell
- Microscopy and Biology
- Cell Diversity

Definition of cell:- Every living organism on earth including plants and animals are made up of numerous building blocks called cells which are organized to perform different functions and

work together to sustain life. Therefore, cell is defined as **the basic structural and functional unit of life**. The study of cell is called **cytology**.

Discovery of cell:-

- **Antonie Van Leeuwenhoek** was the first to recognize the living units of all living organisms. He is also known as **Father of Microbiology**.
- **Robert Hooke** discovered and named the living units as cells.
- **Robert Brown** in 1830 noticed that each cell had a dark spot inside it. He named it nucleus.
- Two German scientists **M. Scheiden** and **T. Schwann** combined their ideas of plants and animals and in accordance to their view the cell theory was proposed.
 1. All organisms are composed of cells.
 2. The cell is the structural and functional unit of all living things.
 3. All cells are produced from pre-existing cells.(this last point of cell theory was actually added by another scientist , **Rudolf Virchow** .

Microscopy and Biology:- In biology the most important technique to study organisms is through microscope. In microscopy magnification and resolution both are important if we want to see a clear picture of something very tiny.

- **Magnification**:- It is a measure of how much larger a microscope causes an object to appear. Different microscopes have different magnifying power. For instance a light microscope is used to magnify up to about 400 times the actual size.
- **Resolution**:- The resolution of a microscope is the smallest distance by which two points can be separated and still be distinguished as separate objects.

Cell diversity:- All the cells are not alike . They show a great variation in their number, shape and size.

ASSESS YOURSELF

Q1) Fill in the blanks:-

1. A ----- is the basic structural and functional unit of life.
2. Robert Hooke designed the first ----- microscope.
3. The cell shows diversity in -----, ----- and -----
4. The bacterial cell is the ----- and an egg cell is the ----- cell.
5. The study of cell is called-----
6. The red blood cell is ----- in shape.
7. ----- is a technique used to study microscopic organisms.
8. The concepts of microscopy are ----- and -----.

Q2) Answer the following questions:-

1. Define cell.

2. Why is a cell called the structural and functional unit of life?
3. Define magnification and resolution
4. Write two differences between unicellular and multicellular organisms.
5. Write the cell theory.
6. Name the following:-
 - The smallest cell----
 - The longest cell ----
 - The largest cell ----