

## 1.1 The Cell

The cell is the basic unit of life where each type of cell is different and performs a different function. The cell is divided into two main categories: prokaryotic and eukaryotic. The prokaryotic cell is small and contains no nucleus like bacteria where the eukaryotic cell has a nucleus, which houses the cell's DNA. The cells are shown in the Fig. 1 below:

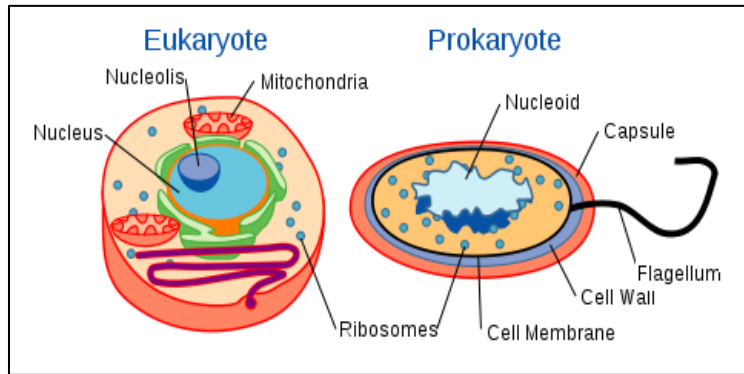


Fig. 1

The membrane or skin is the outer boundary of the cell and it allows some substances in and keeps others out. The mitochondria are where the cell gets its energy from. Food that is digested reacts with oxygen in the mitochondria to make energy for the cell. The ribosomes are tiny factories that make different things the cell needs to function, like proteins. The nucleus is the brains of the cell and it uses chromosomes to instruct the rest of the cell what to do next. The cytoplasm fills up the cell and other components of the cell that float around in the cytoplasm, which is mostly water. The lysosomes get rid of waste and other unwanted substances that get into the cell. The machines inside the cell like the nucleus, ribosomes, and lysosomes are known as organelles.

## 1.2 Self-Check Questions for The Cell Sub-Section

1. What is a cell?
2. What are the two main categories of a cell?
3. What is a membrane?
4. What is a mitochondrion?