

Vacuoles

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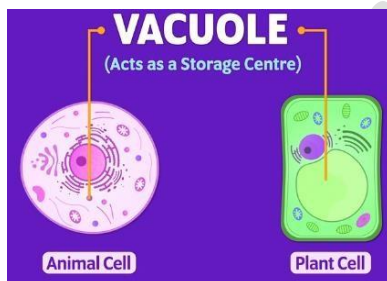
In the previous segment of the chapter 'Cell - The Fundamental Unit of Life', we learnt about the cell organelle, **Mitochondria**. In this segment, let us get acquainted with the next organelle, Vacuole.

What are Vacuoles?

Cell organelles that act as storage centres for the cell are called **Vacuoles**. They are storage sacs for solid and liquid components which are usually wastes generated by the cell.

They can store:

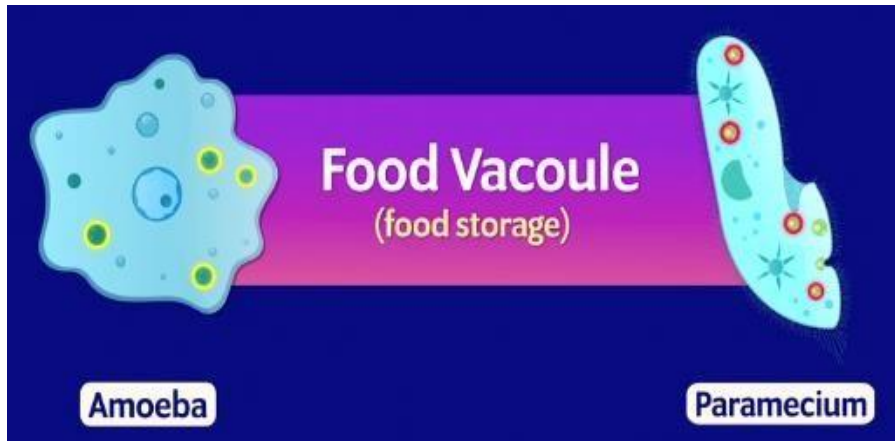
- Waste materials
- Amino acids
- Sugars
- Proteins
- Other substances



Plant cells have comparatively bigger and fewer vacuoles, while the animal cell has smaller and many vacuoles.

What roles do vacuoles play in lower organisms?

- In lower organisms like the amoeba and paramecium, there are specialized vacuoles called the **Food vacuoles** which helps in food storage.
- Apart from this, they also have **Contractile vacuoles** which have the ability to contract or shrink. These vacuoles store liquids and when they get completely filled, they contract to expel out the stored contents.
- Thus, vacuoles perform a variety of functions in different organisms.



Summary

Vacuoles	The cell organelles that act as storage centres for the cell are called Vacuoles .
Substances Vacuoles Store	<ul style="list-style-type: none"> ● Waste materials ● Amino acids ● Sugars ● Proteins ● Other substances
Role of Vacuoles in Lower Organisms	<ul style="list-style-type: none"> ● Amoeba and paramecium have Food vacuoles for food storage. ● They also have Contractile vacuoles which have the ability to contract or shrink.

What's next?

In our next segment of Class 09 Science, we will learn about **Plastids**.