

# Keywords: Autumn 2

## Science

### Topic Title: Cells

**Introduction to the topic: Why are you learning it and how does it link to what you've learned before?**

**The cells topic teaches you about the building blocks of animals and plants and will help you to explore what you are made up of.**

**What lessons will you cover during the topic?**

**You will look at animal and plant cells, at microscopes and how cells make up a whole organism.**

Keyword	Definition
<b>Cell</b>	<b>The basic building blocks of all living things.</b>
<b>Organism</b>	<b>A living thing.</b>
<b>Nucleus</b>	<b>This contains the genetic material (DNA) of the organism and controls the cell's activities.</b>
<b>Cytoplasm</b>	<b>The liquid that makes up most of the cell in which chemical reactions happen. This is mainly water.</b>
<b>Mitochondria</b>	<b>Tiny parts of cells floating in the cytoplasm where energy is released from glucose from food. The mitochondria, found in the cell cytoplasm, are where most respiration happens.</b>
<b>Cell membrane</b>	<b>A flexible outer layer that surrounds the cell and controls which substances can pass into and out from it.</b>
<b>Chloroplasts</b>	<b>Structures found in the cells of green parts of plants only (leaves and stems) which contain a green</b>

	<b>pigment called chlorophyll in which photosynthesis occurs.</b>
<b>Cell wall</b>	<b>A tough outer layer of the cell, which contains cellulose to provide strength and support to the plant.</b>
<b>Vacuole</b>	<b>A space inside the cytoplasm that contains a watery liquid called cell sap. It keeps the cell firm.</b>
<b>Diffusion</b>	<b>Diffusion is the movement of a substance from an area of high concentration to an area of lower concentration.</b>
<b>Osmosis</b>	<b>Osmosis is the diffusion of water molecules from a dilute solution (high concentration of water) to a more concentrated solution (low concentration of water) across a selectively permeable membrane.</b>