



Living Cells

All living things are made up of cells. These organic building blocks come in many shapes and sizes, but they all contain DNA.

Some tiny living things like bacteria and amoeba are single cells. Things like plants and animals (including humans) are made up of dozens to billions of cells. Humans have an estimated 50 million million cells!

Living things with many millions of cells have different cell-types. Humans have skin cells, muscle cells, blood cells, even bone cells. When cells have a particular job to do, they are called specialised cells.

Our red blood cells are specialised to carry oxygen. Our nerve cells are specialised to carry electrical messages to and from our brain. Cells in plants are specialised for photosynthesis or swelling up with water to keep the stem and leaves upright.

Although cells with different jobs can look very different, they have certain things in common. All cells are like tiny, flexible balloons of cell membrane. They are filled with a clear gel called cytoplasm. Swimming in the cytoplasm are:

- a bag of DNA (the nucleus) and
- microscopic parts that control the working of the cell and protein production. These microscopic parts are called organelles.

Plants contain extra cell structures such as a cell wall (surrounding the cell membrane) and chloroplasts that are involved in photosynthesis to make food for the plant.

Some scientists debate whether viruses are living things as well. Although viruses do not contain cell membranes, they have a kind of protein coat that holds RNA, which is similar to DNA.

More Information

Cell Biology <http://www.sciencenet.org.uk/database/bio/cells/cells.html>