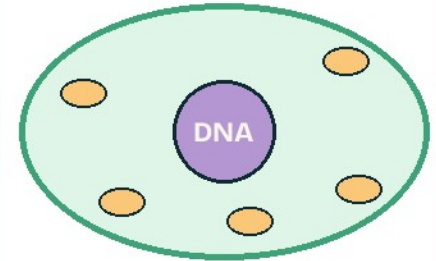


Biology: Cells and Genes

The science of living things

WHAT IS IT?

Biology studies life. Living things are made of cells, use energy, grow and pass on instructions stored in DNA. It connects the smallest parts of a cell to whole ecosystems.



a cell and its nucleus

THE BIG IDEAS

- 1 The cell is the basic unit of life.
- 2 Cells use chemical reactions to get energy and build what they need.
- 3 DNA holds the instructions for making proteins and passing on traits.
- 4 Living things depend on each other and on their surroundings.

YOU SEE IT WHEN ...

How food gives you energy

Why children resemble their parents

How vaccines and medicines are developed

WORDS YOU WILL MEET

Cell

the basic building block of life

Nucleus

the part of many cells that holds most of the DNA

DNA

the molecule that carries genetic instructions

Gene

a section of DNA with instructions for making a protein

Photosynthesis

how plants and algae use light, water and carbon dioxide to make sugar

Ecosystem

living things and their surroundings together

GOOD TO KNOW FIRST

Basic chemistry and reading diagrams.

IN YOUR COURSE YOU WILL ...

- Cell structure and function
- Genetics and inheritance
- Energy: photosynthesis and respiration
- Ecosystems and how living things change over time

Start tip: Split long words into parts: photo (light) + synthesis (building).