

Cells as the basic units of living things, compare plant...

recognise cells as the basic units of living things, compare plant and animal cells, and describe the functions of specialised cell structures and organelles

Learning intention

- recognise cells as the basic units of living things, compare plant and animal cells, and describe the functions of specialised cell structures and organelles

Teach and model

- exploring an augmented or virtual reality tour of a plant or animal to 'zoom in' and understand the scale of cells
- identifying the structure and function of organelles in cells including the nucleus, cell membrane, cell wall, cytoplasm, chloroplasts and vacuoles
- examining a variety of cells, including single-celled organisms, using a light microscope, a digital microscope, simulations and photomicrographs

Check understanding

- Explain the main idea in cells as the basic units of living things, compare plant... using an example.
- Show the idea in a second way: with words, a model, a diagram or symbols.
- Apply the idea to a short unfamiliar situation and justify the result.

Teaching cautions

- Ask the student to explain their choice, not only state an answer.
- Check that key vocabulary is understood in a new example.
- Mix representations so the skill is transferred rather than copied.

Quick lesson sequence

- Connect to prior knowledge and introduce the key vocabulary.
- Model one clear example, then solve a second example together.
- Finish with an independent check and a short student explanation.