

I Can Statement - Year 6

Cells



Unit/Topic Overview	Pre-taught Vocabulary	

RAG Rating:		Start	End
1.	I can define a cell as the basic structural and functional unit of all living organisms and explain that some organisms are unicellular (one cell) while others are multicellular (many cells).		
2.	I can identify and describe the functions of the core components of an animal cell: Nucleus (controls activities/DNA), Cytoplasm (chemical reactions), Cell Membrane (controls entry/exit), and Mitochondria (respiration/energy).		
3.	I can identify the three structures found in plant cells but not animal cells: Cell Wall (support/cellulose), Chloroplasts (photosynthesis), and a Permanent Vacuole (cell sap/storage).		
4.	I can identify the parts of a light microscope (eyepiece, objective lens, stage, focus knobs) and demonstrate how to safely prepare a slide (e.g., onion skin) and focus an image.		
5.	I can explain how specific cells are "shaped for their job." Key examples include: Sperm cell: Tail for swimming and many mitochondria for energy., Red blood cell: Biconcave shape and no nucleus to carry more oxygen. Nerve cell: Long fibers to carry impulses over distances.		
6.	I can explain the adaptations of plant-specific cells: Root hair cell: Large surface area to absorb water and minerals. Palisade cell: Packed with chloroplasts for maximum photosynthesis.		
7.	I can describe the "ladder" of biological complexity, explaining how cells work together: Cells → Tissues → Organs → Organ Systems → Organism		
8.	I can define diffusion as the movement of particles from a high to a low concentration and explain its importance in moving oxygen, food, and waste products in and out of cells.		