

Cells and Systems: Model or Report Marking Guide

Task

Students present a labelled model or report on cells and systems. The work shows the structure and function of cells, how cells relate to tissues and organs, and how human body systems work together to keep the body healthy.

Curriculum alignment

- Investigating living things and applying the concept of system to describe structure and function ([Outcome](#))
- Describing the role of cells as the basic unit of life, and distinguishing plant and animal cells ([Outcome](#))
- Interpreting the healthy function of human body systems and how cells contribute to that function ([Outcome](#))
- The unit's key concepts of organisms, cells, organs, tissues, structure and function, and systems provide the framework for the model or report ([Topic](#))

Rubric

Criterion	Beginning	Developing	Proficient	Exemplary
Cell structure and function	Labels cells with little accuracy; plant and animal cells not distinguished (Outcome)	Identifies some cell parts; attempts to distinguish plant and animal cells with errors (Outcome)	Accurately labels cell parts and distinguishes plant and animal cells (Outcome)	Labels cell parts accurately and explains diffusion or osmosis in terms of concentration differences (Outcome)
System organization (cells to organs)	Shows cells or organs in isolation; no connection between levels of organization (Outcome, Topic)	Shows some connection between cells, tissues and organs, but the system concept is unclear (Outcome)	Clearly organizes the model or report from cells to tissues to organs as a working system (Outcome, Topic)	Explains how structure supports function at each level, from cell to organ, using the system concept (Outcome)
Human body systems	Names a body system with minimal description of its function (Outcome)	Describes one or two body systems in general terms with some inaccuracies (Outcome)	Accurately describes the respiration, circulation, digestion, excretion or sensory system chosen, including organ roles (Outcome)	Describes the system accurately and explains how it responds to a change, such as heart rate during exercise (Outcome)
Role of cells in body function	Does not connect cells to human body function (Outcome)	Mentions a cell type without explaining its contribution to health (Outcome)	Describes how a specific cell type (e.g., nerve, muscle, blood) contributes to healthy body function (Outcome)	Describes multiple cell types and links each clearly to the healthy functioning of its system (Outcome)

Scoring

Score each criterion Beginning (1), Developing (2), Proficient (3) or Exemplary (4). Add the four scores for a total out of 16.

- 4 to 7: Beginning overall
- 8 to 10: Developing overall
- 11 to 13: Proficient overall
- 14 to 16: Exemplary overall

A student who scores Beginning on any single criterion should receive specific written feedback on that criterion, even if the total places the work in a higher band overall.

Notes for the teacher

- Mark the cell structure criterion against the actual labelled parts present in the model or report, not against how polished the artwork looks.
- Students should be able to describe the role of cells as a basic unit of life and distinguish between plant and animal cells in their written explanations and diagrams.
- Diffusion and osmosis only need a general explanation of movement based on concentration differences, not a detailed mechanism ([Outcome](#)). Do not penalize students for omitting molecular-level detail.
- Keep a copy of one Proficient-level sample to calibrate marking across a class set before grading the rest.