

Cells and Systems: Grade 8 Concept Map

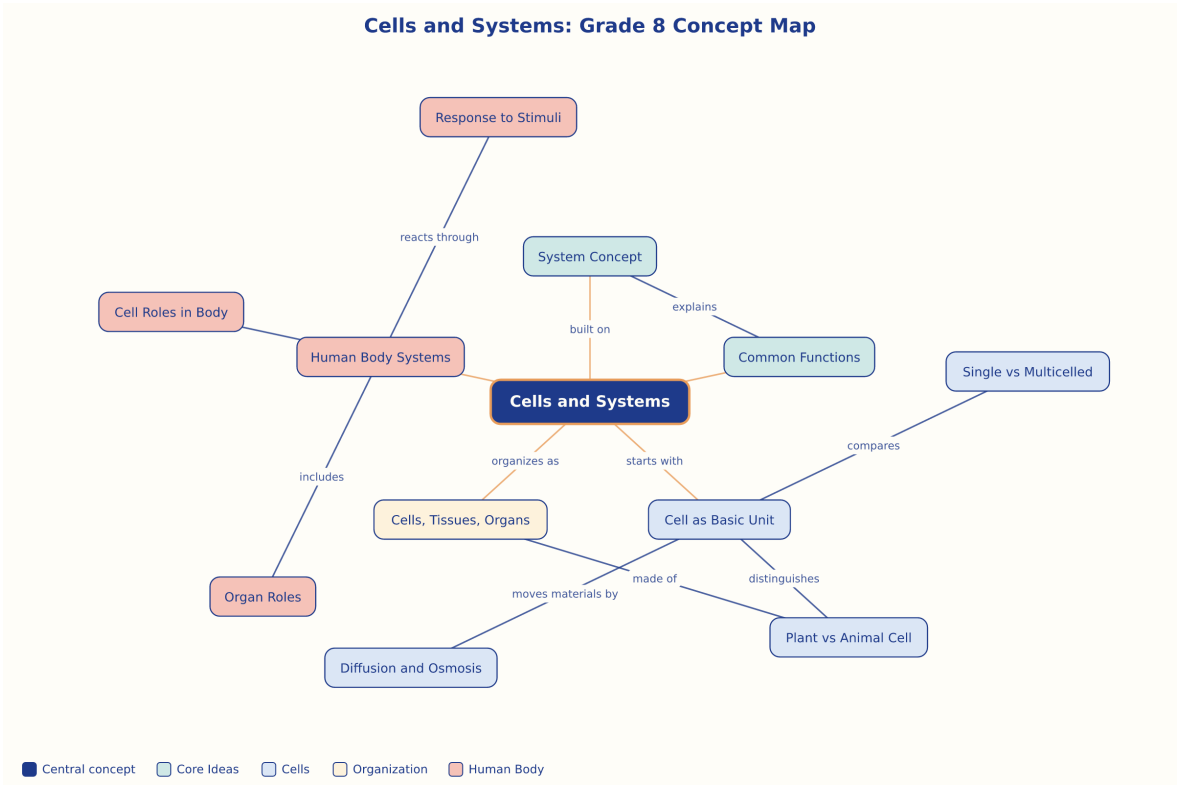
Central concept: **Cells and Systems**

Connections

- Cells and Systems (built on) -> System Concept
- Cells and Systems (shows) -> Common Functions
- Cells and Systems (starts with) -> Cell as Basic Unit
- Cells and Systems (organizes as) -> Cells, Tissues, Organs
- Cells and Systems (seen in) -> Human Body Systems
- Cell as Basic Unit (compares) -> Single vs Multicelled
- Cell as Basic Unit (distinguishes) -> Plant vs Animal Cell
- Cell as Basic Unit (moves materials by) -> Diffusion and Osmosis
- Cells, Tissues, Organs (made of) -> Plant vs Animal Cell
- Human Body Systems (includes) -> Organ Roles
- Human Body Systems (depends on) -> Cell Roles in Body
- Human Body Systems (reacts through) -> Response to Stimuli
- System Concept (explains) -> Common Functions

Notes

- **Cells and Systems:** Living things function as systems built from cells, organized to support life ([Topic](#)). [Topic](#)
- **System Concept:** Structures and functions organized so parts work together ([Outcome](#), [Outcome](#)). [Outcome](#), [Outcome](#)
- **Common Functions:** Different organisms meet similar needs, like food gathering, in different ways ([Outcome](#)). [Outcome](#)
- **Cell as Basic Unit:** Cells are the basic unit of life shared by all organisms ([Outcome](#)). [Outcome](#)
- **Single vs Multicelled:** Compares organisms like amoeba to grizzly bear or algae to a poplar tree ([Outcome](#), [Outcome](#)). [Outcome](#), [Outcome](#)
- **Plant vs Animal Cell:** Distinguishes structures such as cell walls versus cell membranes ([Outcome](#), [Outcome](#)). [Outcome](#), [Outcome](#)
- **Diffusion and Osmosis:** Gases and liquids move into and out of cells based on concentration differences ([Outcome](#), [Outcome](#)). [Outcome](#), [Outcome](#)
- **Cells, Tissues, Organs:** Cells build tissues, tissues build organs, contributing to plant and animal structures ([Outcome](#), [Outcome](#), [Topic](#)). [Outcome](#), [Outcome](#), [Topic](#)
- **Human Body Systems:** Includes respiration, circulation, digestion, excretion and sensory awareness ([Outcome](#)). [Outcome](#)
- **Organ Roles:** Organs like lungs and bronchia support healthy body functioning ([Outcome](#)). [Outcome](#)
- **Cell Roles in Body:** Nerve, muscle, blood, skin and bone cells each contribute to healthy function ([Outcome](#)). [Outcome](#)
- **Response to Stimuli:** Body functions change with conditions, such as heart rate rising during exercise ([Outcome](#), [Topic](#)). [Outcome](#), [Topic](#)



Cells and Systems: Grade 8 Concept Map