

Cells and Systems (Grade 8 Science)

Central concept: **Cells and Systems**

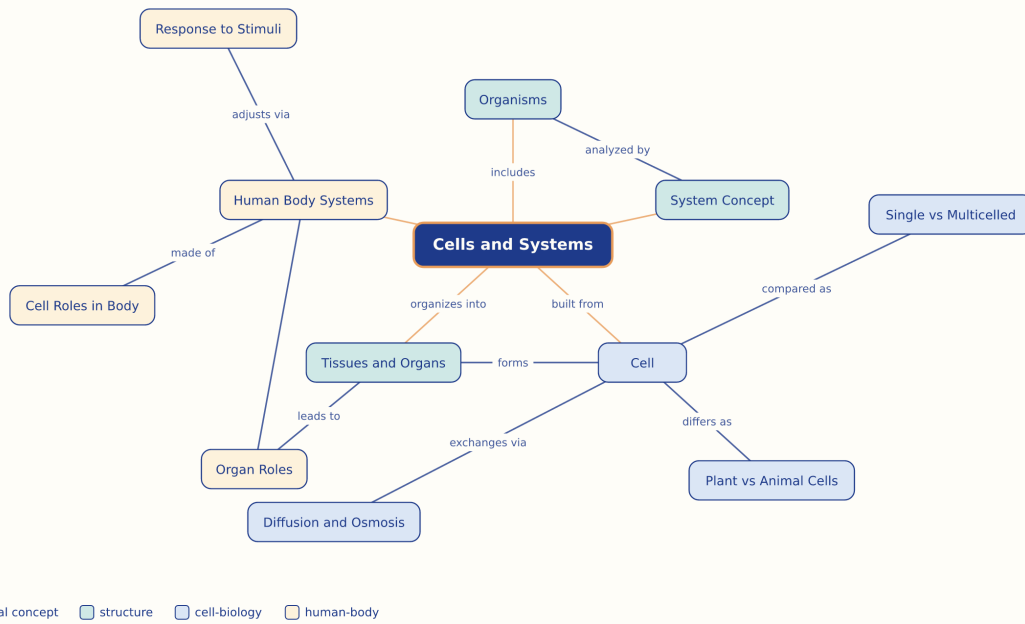
Connections

- Cells and Systems (includes) -> Organisms
- Cells and Systems (applies) -> System Concept
- Cells and Systems (built from) -> Cell
- Cells and Systems (organizes into) -> Tissues and Organs
- Cells and Systems (seen in) -> Human Body Systems
- Organisms (analyzed by) -> System Concept
- Cell (compared as) -> Single vs Multicelled
- Cell (differs as) -> Plant vs Animal Cells
- Cell (exchanges via) -> Diffusion and Osmosis
- Cell (forms) -> Tissues and Organs
- Human Body Systems (relies on) -> Organ Roles
- Human Body Systems (made of) -> Cell Roles in Body
- Human Body Systems (adjusts via) -> Response to Stimuli
- Tissues and Organs (leads to) -> Organ Roles

Notes

- **Cells and Systems:** Living things function as balanced systems, from single cells to complex organisms. [Topic](#)
- **Organisms:** Diverse living things share common functions met by different structures, e.g. food gathering. [Outcome](#), [Outcome](#)
- **System Concept:** Applying the idea of system to describe an organism's general structure and function. [Outcome](#), [Outcome](#)
- **Cell:** The basic unit of life in all living things. [Outcome](#), [Outcome](#)
- **Single vs Multicelled:** Comparing organisms like an amoeba versus a grizzly bear, or an alga versus a poplar tree. [Outcome](#), [Outcome](#)
- **Plant vs Animal Cells:** Distinguished by features such as cell walls versus cell membranes. [Outcome](#), [Outcome](#)
- **Diffusion and Osmosis:** Movement of gases and liquids into and out of cells based on concentration differences. [Outcome](#), [Outcome](#)
- **Tissues and Organs:** Cells contribute to tissues and organs, which build plant and animal structures. [Outcome](#), [Outcome](#)
- **Human Body Systems:** Respiration, circulation, digestion, excretion and sensory awareness systems. [Outcome](#)
- **Organ Roles:** Individual organs such as lungs and bronchia support healthy body function. [Outcome](#)
- **Cell Roles in Body:** Nerve, muscle, blood, skin and bone cells each contribute to healthy body function. [Outcome](#)
- **Response to Stimuli:** Body functions change with conditions, such as heart rate during exercise or reflexes. [Outcome](#)

Cells and Systems (Grade 8 Science)



Cells and Systems (Grade 8 Science)