

Objectives: You should be able to...

- Explain why cells are limited in size
- Calculate SA/V ratio and what it means
- Explain why internal membranes and compartmentalization are important for cell functions
- Compare and contrast **prokaryotic** vs. **eukaryotic** cells / **animal** vs. **plant** cells
- Describe the functions of organelles and what types of cells they can be found in (flash cards)
- Describe how organelles interact with each other to provide essential cell functions

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- Explain how the structure of the cell membrane determines its function (**selective permeability**)
- Describe components of the cell membrane: **phospholipids, embedded proteins, cholesterol, glycolipids, glycoproteins**
- Predict what types of molecules can pass through the membrane and how
- Describe factors that affect membrane **fluidity**
- Additional Vocabulary: aquaporin, antigen, embedded membrane proteins (peripheral, integral/ transmembrane, channel, proton pump)

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- Predict the movement of molecules and water.
- Accurately describe diagrams using **hypertonic, hypotonic, and isotonic**.
- Describe how animal and plant cells react in different solutions.
- Compare **passive, active, and bulk transport**.
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