

SECTION | MICROSCOPES ALLOW US TO SEE INSIDE THE CELL.

**1.2 Reading Study Guide B****BIG IDEA** All living things are made up of cells.**KEY CONCEPT** Microscopes allow us to see inside the cell.**Review**

The cell theory describes the cell as the fundamental unit of life.

**Take Notes****I. The microscope is an important tool.**

- For each type of microscope, write how the microscope creates an image. Then write down one advantage and one disadvantage for each microscope.

	How an Image Is Created	Advantage	Disadvantage
Light microscope			
Scanning electron microscope			
Transmission electron microscope			

**II. Cells are diverse.**

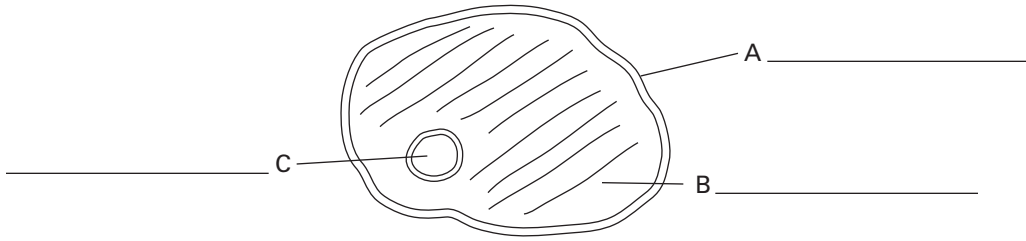
- What is the cell membrane and what is its function?

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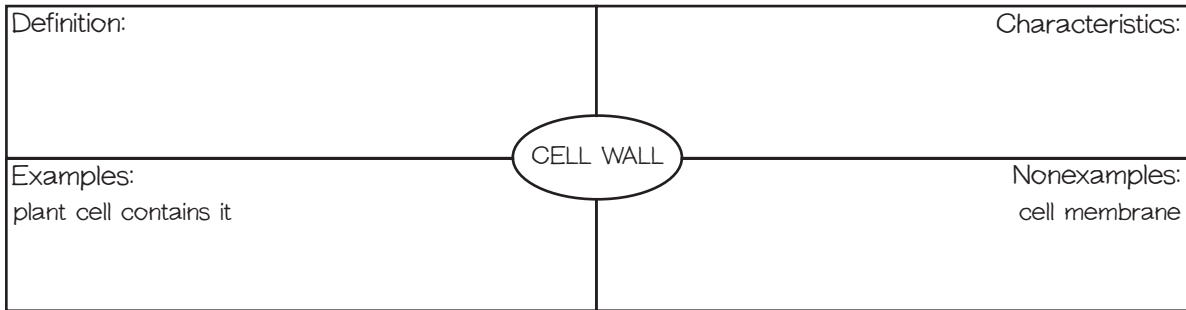
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3. Label the three cell parts shown. Circle the type of cell: prokaryote / eukaryote.



**III. Plants and animals have eukaryotic cells.**

4. Fill in the four-square diagram for *cell wall*.



**A–C. Structures That Process Information, Organelles That Provide Energy, and Organelles That Process and Transport**

5. Write the name of the cell structure next to its description in the table.

Organelles that use the energy from sunlight to make sugar	
Organelles that release stored energy	
A twisted membrane with portions that break off to form vesicles that transport materials	
A tough outer covering that lies right outside the cell membrane	

**D. Organelles for Storage, Recycling, and Waste**

6. What function does the central vacuole in a plant cell perform?

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7. What function do the lysosomes in an animal cell perform?

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