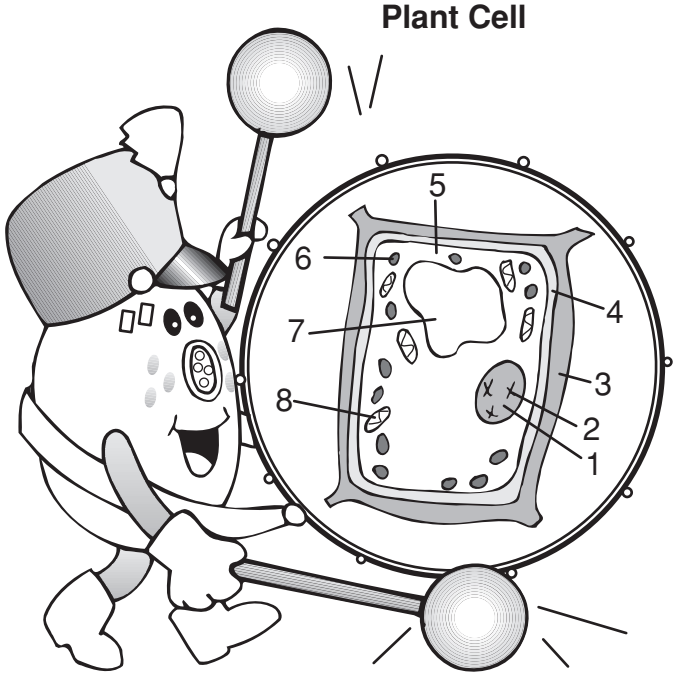
Name _____ Date _____

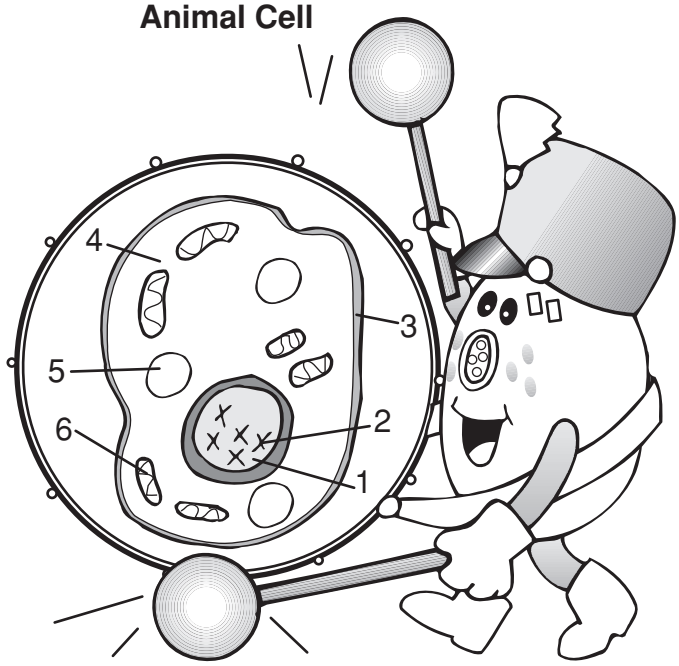
Drumming Up Differences

Discover the differences between plant and animal cells. Study the cell diagrams below. Then answer the questions that follow. Use another sheet of paper if you need more room.

Plant Cell



Animal Cell



Plant Cell Structures

1. The **nucleus** is the control center for the cell's activities.
2. **Chromosomes** are threadlike structures that contain information about characteristics of the plant.
3. The **cell wall** is a tough outer covering that supports and protects the plant cell.
4. The **cell membrane** is a thin layer that surrounds the cell and holds it together.
5. **Cytoplasm** is a jellylike substance that fills most of the cell.
6. **Chloroplasts** are structures that make food for the plant cell.
7. **Vacuoles** are structures that store food, water, or wastes.
8. **Mitochondria** are structures that release energy from food.

Animal Cell Structure

1. The **nucleus** is the control center for the cell's activities.
2. **Chromosomes** are threadlike structures that contain information about characteristics of the animal.
3. The **cell membrane** is a thin covering that surrounds the cell, holds it together, and separates it from its surroundings.
4. **Cytoplasm** is a jellylike substance that fills most of the cell.
5. **Vacuoles** are structures that store food, water, or wastes.
6. **Mitochondria** are structures that release energy from food.

1. What structures are common to both plant and animal cells? _____
2. What structures are found only in plant cells? _____
3. Where are the chromosomes found? What do they look like? _____
4. What are mitochondria? _____
5. What do vacuoles do? _____
6. Can a plant cell do things that an animal cell cannot? Explain. _____
7. How do the stiff cell walls of plant cells make plants look and feel different from animals? _____
8. How do vacuoles in the animal cell differ from those in the plant cell? _____

Answer Key

1. nucleus, chromosomes, cell membrane, cytoplasm, vacuoles, and mitochondria
2. cell wall and chloroplasts
3. Chromosomes are found in the nucleus. They look like threads.
4. Mitochondria are structures that release energy from food.
5. Vacuoles store food, wastes, or water.
6. Yes; plant cells have the ability to make their own food.
7. Plants have rigid parts, such as tree trunks, whereas most animals are soft and flexible.
8. Some (but not all) animal cells have a few small vacuoles. Plant cells usually have one large vacuole.