Plant and Animal Cells

2A

All living things are made up of tiny units called cells. Within a single plant or animal, cells can be different from one another. This is because the cells have special jobs to do. In general, however, all cells have many things in common. Even so, plant cells and animal cells have important differences.

A layer called the cell membrane surrounds both plant and animal cells. This membrane controls what materials can move in and out of the cell. The rest of the cell is held inside the membrane. Within the membrane is a jelly-like substance called **cytoplasm.** Most of the parts of a cell, called **organelles,** float in the cytoplasm. The one organelle not contained in the cytoplasm is the **nucleus.** The nucleus controls the cell's functions, which are carried out by the other organelles.

So what are the differences between plant and animal cells? For one, plant cells have a cell wall. This stiff layer surrounds the cell membrane, giving the cell more protection. Cell walls are also responsible for plants' ability to stand up, even in strong winds. Also unlike animal cells, plant cells contain organelles called **chloroplasts.** Chloroplasts are what give plants their green colour. More importantly, they **process** light in order to make food for the plant. This is why, unlike animals, plants don't need to eat.

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Comprehension Questions

2B

1. What makes plants and animals similar?
   a. They are both able to produce their own food.
   b. They are both made of cells.
   c. Both their cells have cell walls.

2. If you were looking at a cell under a microscope, you could tell it was a plant cell if it had
   a. a cell wall.
   b. a cell membrane.
   c. cytoplasm.

3. What does **process** mean?
   a. carefully control
   b. give off
   c. use in a particular way

4. Plants don't need to eat because they
   a. make their own food using chloroplasts.
   b. don't have stomachs.
   c. only need to get water from the soil to survive.

5. What might happen if the nucleus of a cell were damaged?
   a. The cell would split into two different cells.
   b. The cell would lose some of its cytoplasm.
   c. The cell would be unable to function normally.

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