Brainpop - Cell Specialization

Name:

Period:

Watch the Brainpop on cell specialization, then fill in the blanks using the words provided in the word bank below each paragraph. You can also use Chapter 4 to help you.

There are _____ basic types of cells, prokaryotic and eukaryotic. Prokaryotic cells don't have any _____ around their nuclear material. They're _____-celled organisms that can live on their own. Eukaryotic cells are what we're made of. They have a _____ of hereditary material (DNA) that's surrounded by a membrane and _____ the life of the cell. Plant and animal cells are both _____.

controls eukaryotic membrane nucleus single two

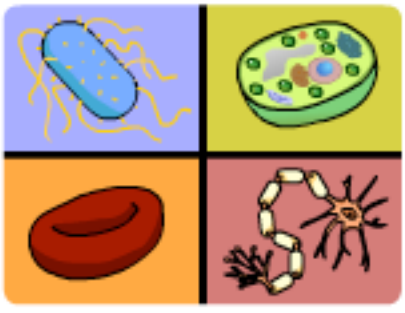
Cells come in all _____ shapes and sizes. The size and shape of a cell can sometimes tell you something about its _____. One nerve cell in your leg can be a meter long! Those little "fingers" on each end, called _____, let _____ jump from one nerve synapse to the next. A red blood cell is about one-tenth the size of a _____ on your computer screen. It's a tiny _____ disk that can move through even the narrowest blood vessels. A plant xylem cell is long and hollow with holes in it so it can _____ water and minerals through the plant.

dendrites different flexible job period signals transport

Plant and animal cells are pretty similar inside but there are two major _____. Plant cells can make their own _____ and animal cells can't. Plant cells' green color comes from green organelles called _____. Chloroplasts trap light energy and enable plants to conduct _____. Animal cells are surrounded with a flexible _____. Plant cells have a membrane too, but outside of that, they protect themselves with a stiff outer _____. Both plant cells and animal cells work in _____. When you take a tiny piece of a plant, there are tons of cells clustered together in that piece working _____. The same is true for a piece of an animal.

cell membrane chloroplasts differences food photosynthesis teams together wall

You saw the image below in the Brainpop. Why do cells come in so many different shapes and sizes?



Work: 18 points, Assessment: 5 points

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Now click on the icon for CHALLENGE, then select REVIEW and answer the following:

1. Which statements about cell specialization are true? Choose more than one answer by writing TRUE on the line next to the statement. If the statement is not true, leave the line blank.

_____ all cells are surrounded by a cell membrane

_____ all cells within an organism are similar shapes and sizes

_____ cells in eukaryotic organisms tend to work alone

_____ genetic material can be found in every kind of cell

_____ human beings have eukaryotic cells

_____ prokaryotic organisms usually contain thousands of cells

2. On the photograph of plant cells, drag the terms into the correct spot on the image. Write down the four terms you used in order starting with the one on top.

_____ _____ _____ _____

3. On the diagram of cell types, drag the terms into the correct spot on the image. Write down the four terms you used in order from top to bottom.

_____

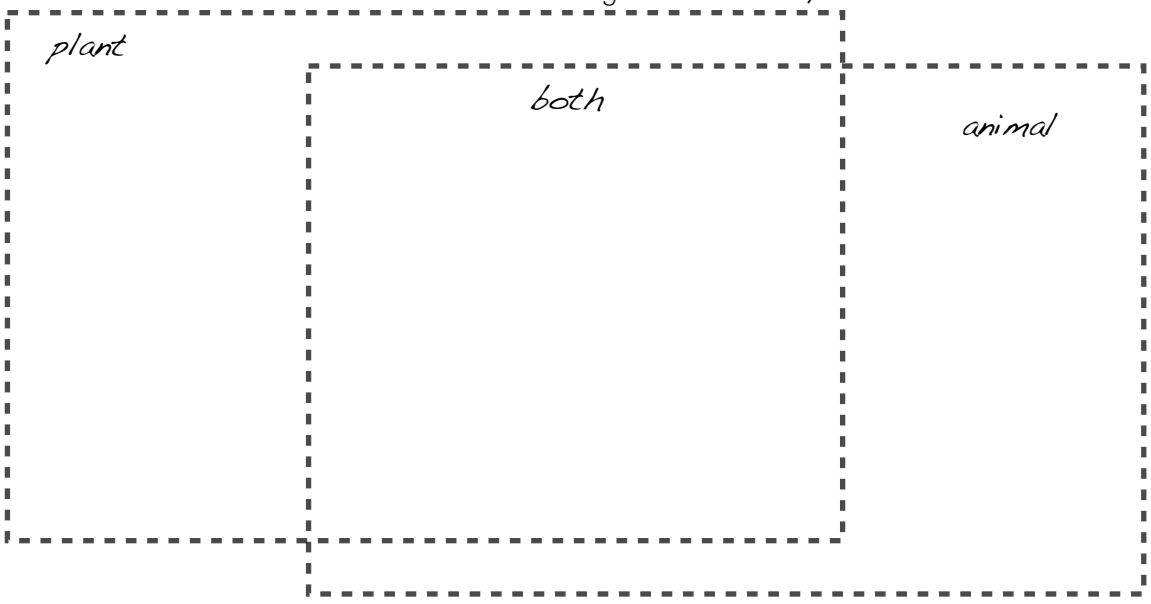
_____

_____

_____

4. Put the facts in the appropriate sections of the Venn diagram:

converts sunlight to food external food supply flexible cell membrane genetic material in nucleus stiff outer wall works together with many cells



Work: 18 points, Assessment: 5 points