

# Cell Riddles

All living things are made up of cells. Cells are small structures that contain all the biological parts necessary for an organism to live. Cells are made up of smaller structures, called organelles.

**Directions:** Read each cell riddle below. Decide which organelle the riddle describes, and write the name of that structure in the blank. Note that all possible answers are listed in the top box below.

cell wall	cell membrane	cytosol	nucleus	Golgi apparatus
nucleolus	chromosomes	central vacuole	ribosomes	endoplasmic reticulum
mitochondrion	chloroplasts	lysosome		

### Riddle #1

I am the jelly-like fluid inside the cell. I provide an area of movement for all the dissolved molecules that keep the cell working. I am the \_\_\_\_\_.

### Riddle #2

I am found inside of the nucleus. I help produce ribosomes. I am the \_\_\_\_\_.

### Riddle #3

I am a thin protective layer around the cell, but I am not one solid piece. I have tiny openings that allow materials to pass in and out of the cell. I am the \_\_\_\_\_.

### Riddle #4

When a cell needs energy, I take in nutrients, break them down, and supply energy to the cell. I can also convert stored energy in the cell to food. I am a \_\_\_\_\_.

### Riddle #5

I am a large storage unit in the cell. I am very large in plant cells, and I store water, food, and wastes. I help support the plant. When I start to shrink due to a lack of water, the plant may wilt. I am the \_\_\_\_\_.

### Riddle #6

I am a food producer for plant cells. I absorb light energy from the sun and use it to convert carbon dioxide and water to sugar and oxygen. I am not found in animal cells. I am a \_\_\_\_\_.

### Riddle #7

I act like a digestive system in an animal cell. I contain enzymes that break down wastes and other materials. I am a \_\_\_\_\_.

### Riddle #8

We build proteins in the cell. We can be found in several places in the cell, including in the cytosol and on the endoplasmic reticulum. We are \_\_\_\_\_.

### Riddle #9

We direct the genetic information of the cell. We are made of DNA, and found in the nucleus, usually in pairs. We are the \_\_\_\_\_.

### Riddle #10

I am the "brain" of the cell, and I control all the activities of the cell. I am located in the cytosol, but you would not find me in prokaryotic cells. I am the \_\_\_\_\_.

### Riddle #11

I am the cell's transport system. There are two types of me, rough and smooth. The rough type has ribosomes attached. I am the \_\_\_\_\_.

### Riddle #12

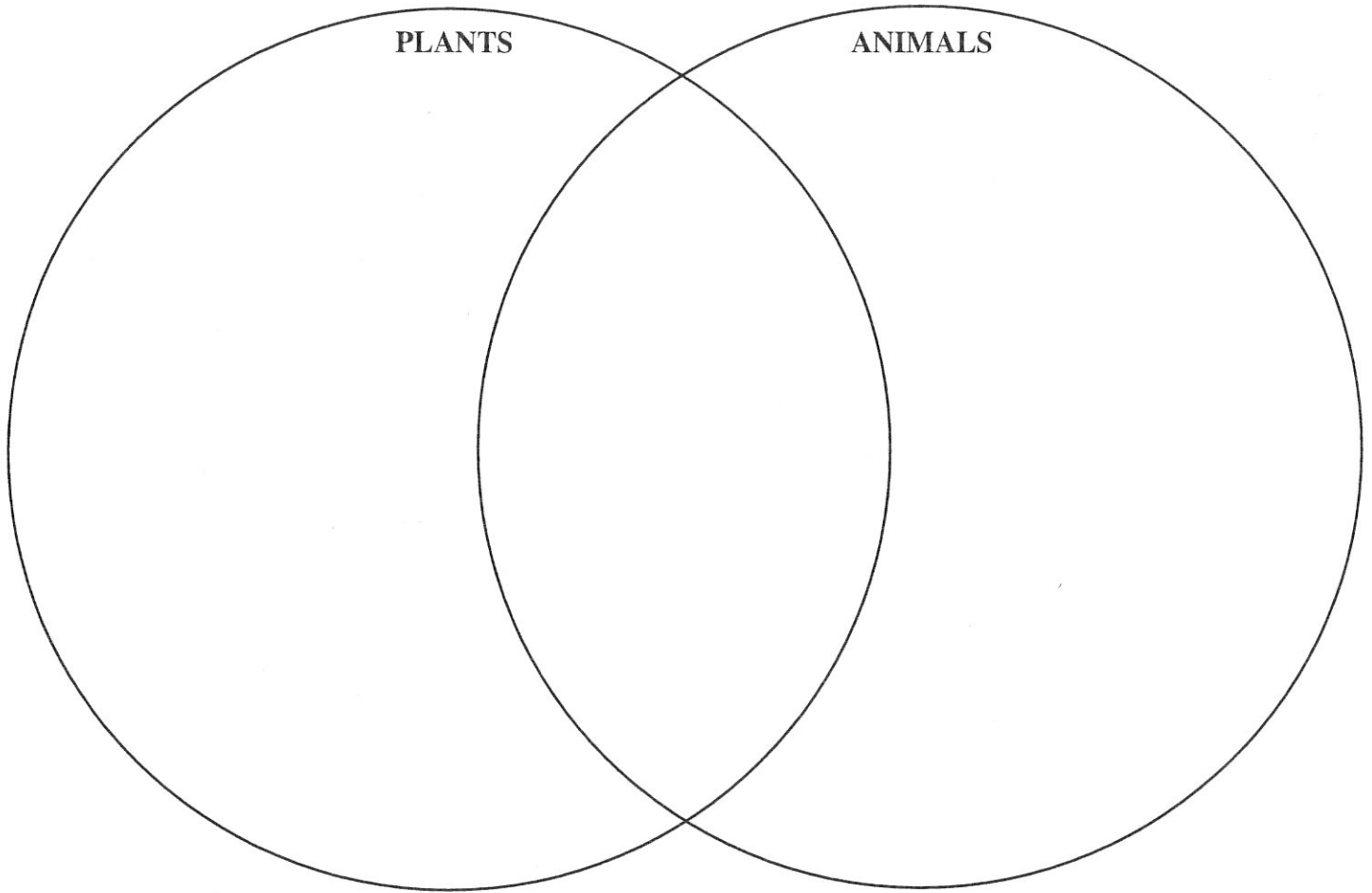
I am found only in plant cells. I am the outermost part of the plant cell. I am made of a specialized sugar called cellulose. I provide support and protection and give plants their shape, since they don't have bones. I am the \_\_\_\_\_.

### Riddle #13

I gather molecules and make them more complex. I store these molecules or send them into the cytosol or out of the cell. I process the proteins produced by the endoplasmic reticulum and ribosomes. I am the \_\_\_\_\_.

# Plants & Animals

1. Plants and animals are both living organisms. Use the Venn diagram below to compare and contrast plants and animals.



2. A friend tells you that you have nothing in common with an oak tree. Because you have been studying living things, you know your friend is incorrect. Write the explanation you give your friend to convince him or her that you do, in fact, have some things in common with an oak tree.

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3. Is the cell shown below a plant cell or an animal cell? \_\_\_\_\_

What helped you to decide which type of cell it is?

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