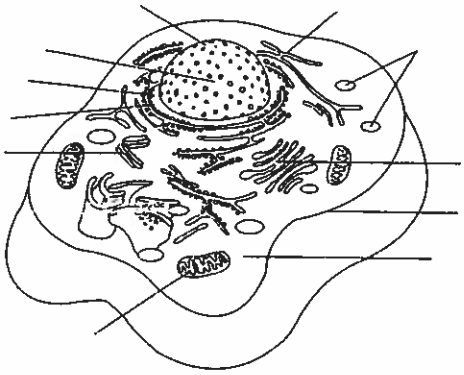
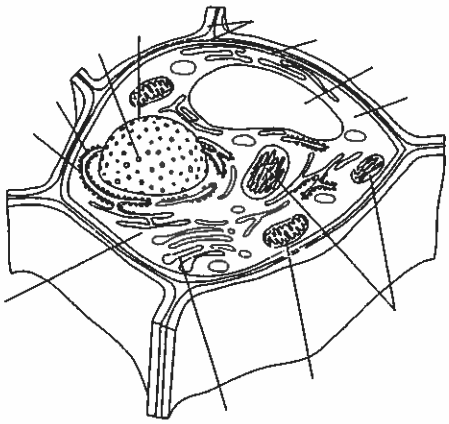
Getting to know the cell
Summary Questions

1. Describe the functions of the following organelles and cell structures and find them on the diagrams.
    a. Cell wall
    b. Vacuole
    c. Cell membrane
    d. Golgi Apparatus





2. A certain tissue is actively involved in protein synthesis. Probably the cells in the tissue have a large number of _____.

3. The synthesis of molecules inside cells requires chemical energy in the form of ATP, most of which is produced by the _____.

4. What would happen inside a cell is its lysosomes had leaky membranes?

5. During the development of red blood cells, the cell nucleus is lost. How will this affect the red blood cells?

6. You have two slides and your job is to determine which one is an animal cell and which is a plant cell. What would you look for when examining them to determine each type?

7. Label both diagrams with cell organelles that help you distinguish whether each is a micrograph of a plant or animal cell. Which one is which? How do you know?

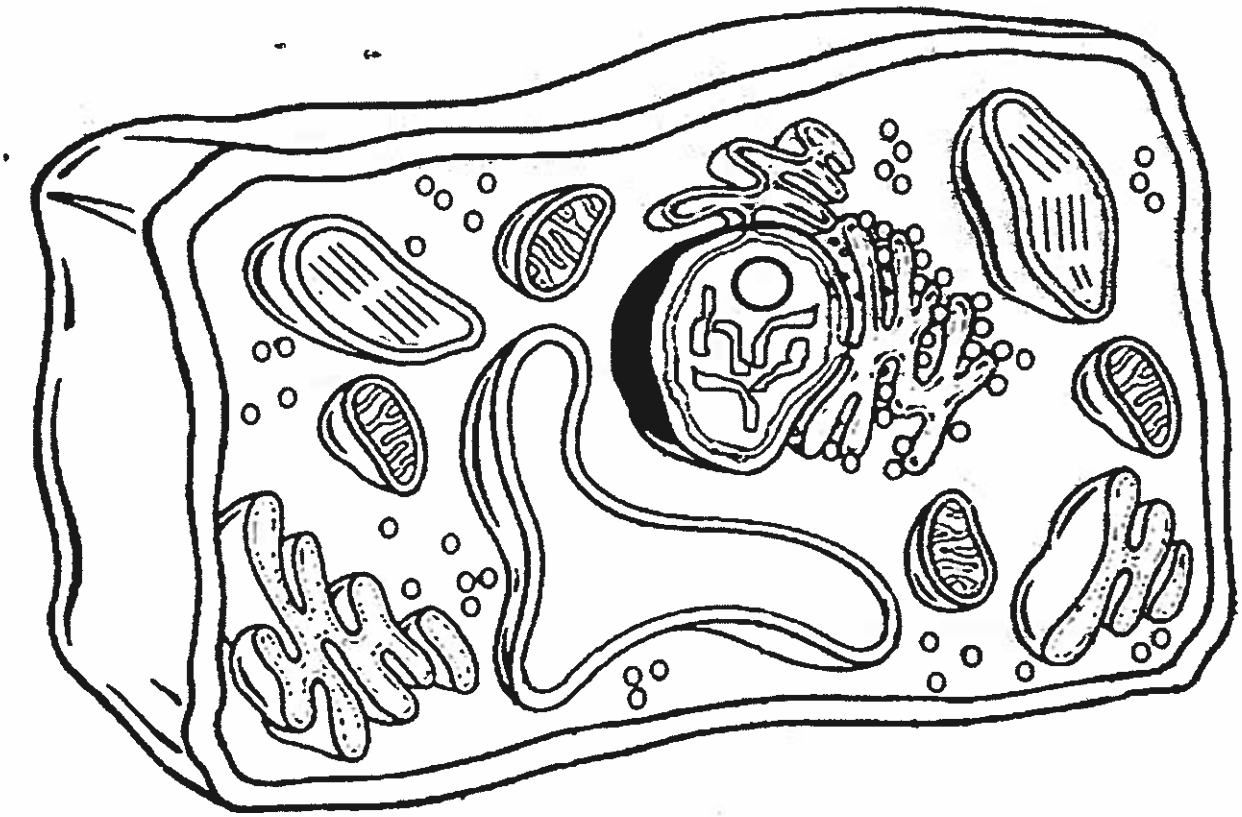
Getting to know the Cell

Colour Coding Cell organelles in a PLANT CELL

- ✓ I can describe the function of cell organelles and structures in a cell, in terms of life processes, and use models to explain these processes and their applications
- ✓ I can identify the structure and describe, in general terms, the function of the cell membrane, nucleus, lysosome, vacuole, mitochondrion, endoplasmic reticulum, Golgi apparatus, ribosomes, chloroplast and cell wall, where present, of plant and animal cells

Our organelles are mostly clear, not colour coded as they are in the diagram and models that we study. We use colour code for identifying and learning the different names and functions of cell components. Use the following key to COLOUR and LABEL the picture of the organelles inside the generic plant cell below.

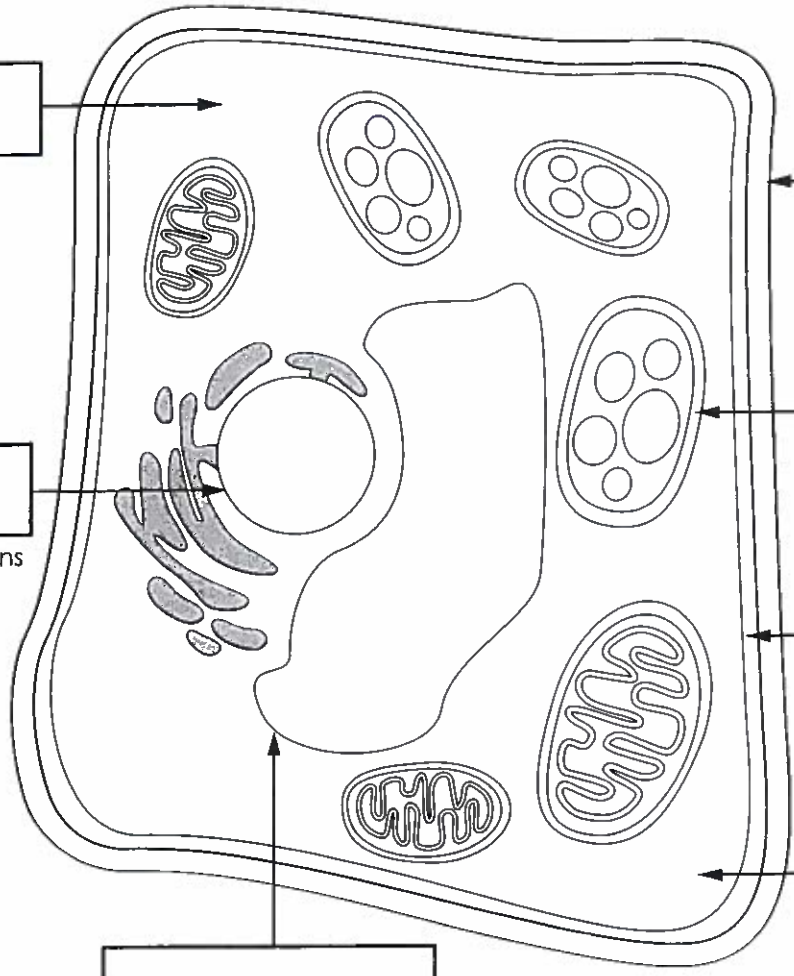
- ☐ Cell Membrane (orange)
- ☐ Nucleoplasm (yellow)
- ☐ Mitochondria (red)
- ☐ Vacuole (lt. Blue)
- ☐ Cell Wall (dark green)
- ☐ Nucleolus (brown)
- ☐ Chloroplasts (light green)
- ☐ Ribosome (purple)
- ☐ Cytoplasm (white)
- ☐ Golgi Apparatus (dk blue)
- ☐ Smooth Endoplasmic Reticulum (pink)
- ☐ Rough Endoplasmic Reticulum (pink)



Name: _____

Plant Cell

Identify each part of the cell.



Gel-like substance between the cell membrane and the nucleus

Protects the cell from injury and holds the shape of the cell

Controls many functions in the cell

Makes sugars and starches through photosynthesis

Controls what comes in and out of the cell

Provides energy

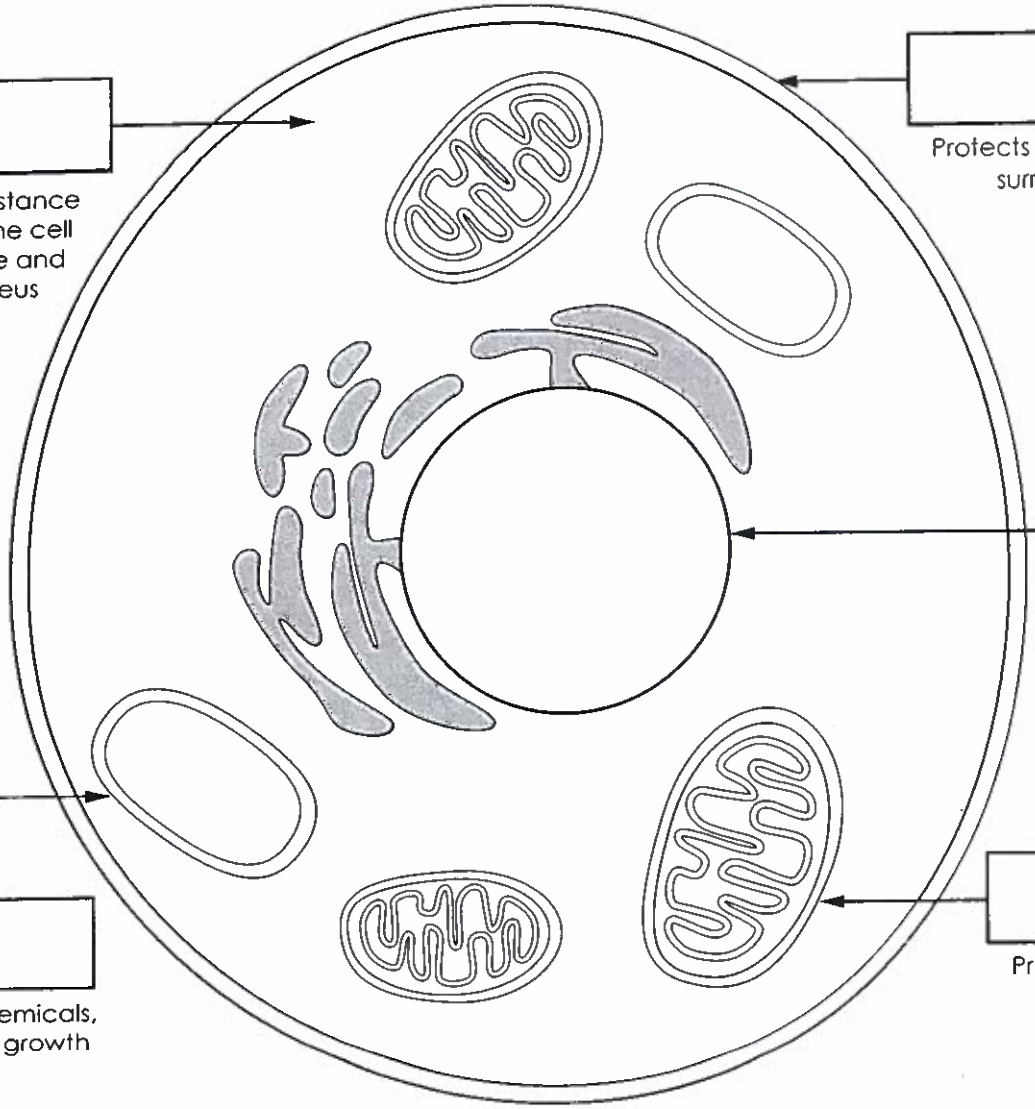
Stores biochemicals, helps in plant growth

Word Bank

Cell Membrane
Cell Wall
Chloroplast
Mitochondrion
Nucleus
Cytoplasm
Vacuole

Name: _____

Animal Cell



Gel-like substance between the cell membrane and the nucleus

Protects the cell from its surroundings

Controls many functions in the cell

Provides energy

Stores biochemicals, helps in cell growth

Word Bank

Cell Membrane **Mitochondria** **Vacuole**

Cytoplasm **Nucleus**

Name: _____

☐ Cell Nucleus

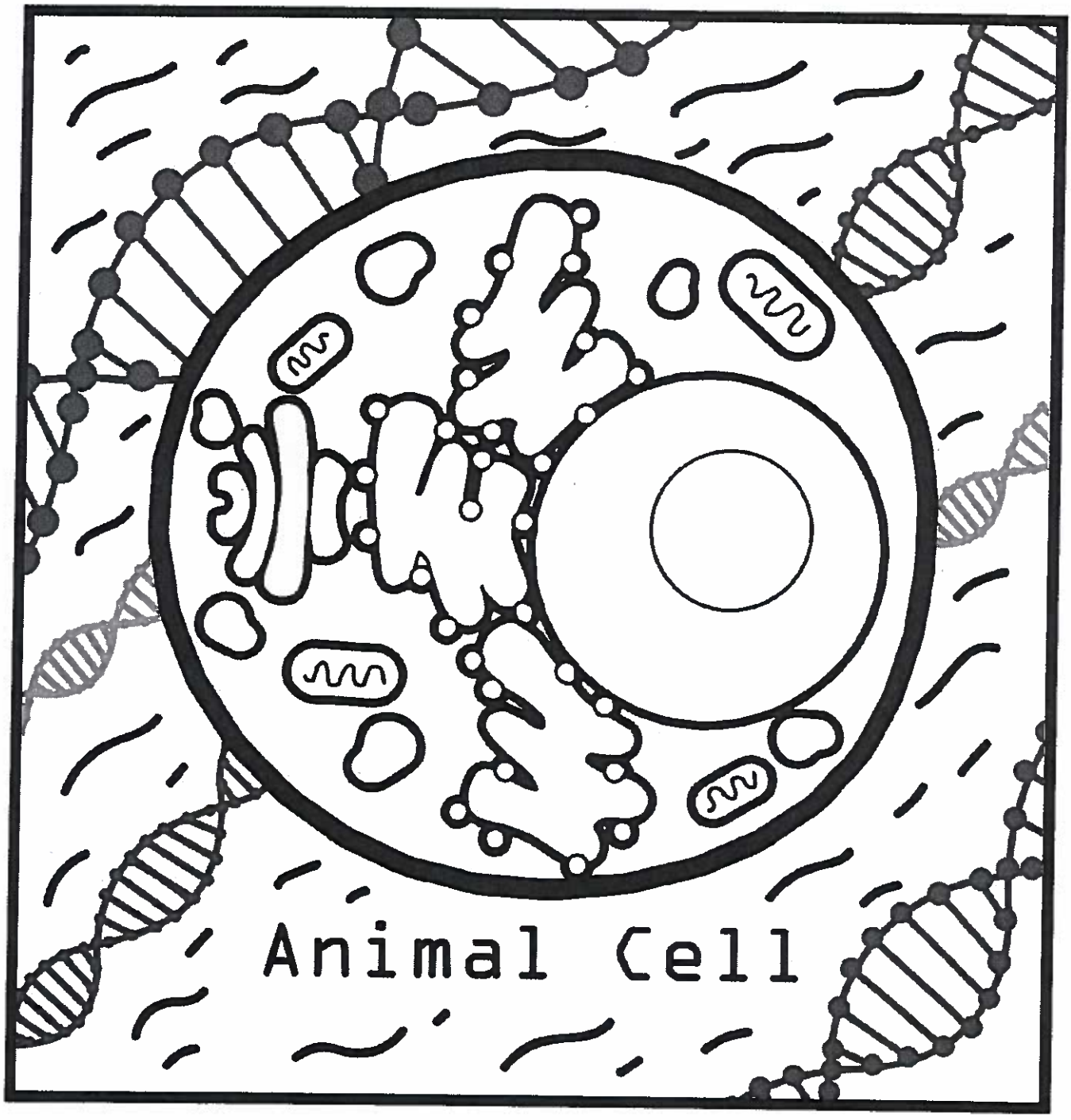
☐ Cell Membrane

☐ Ribosome

☐ Lysosome

☐ Golgi apparatus

☐ Mitochondrion



Differences and Similarities between Plant and animal cells