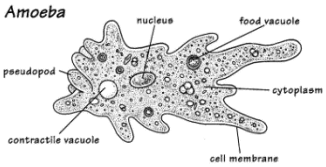
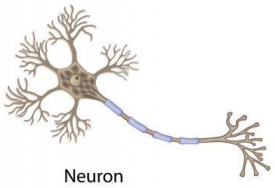
SCIENCE 8
TOWERS

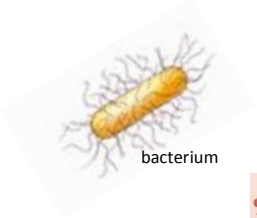
NAME:_____
BLOCK: _____ DATE: _____

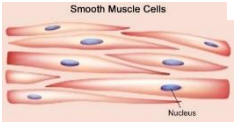
Plant vs Animal Cells

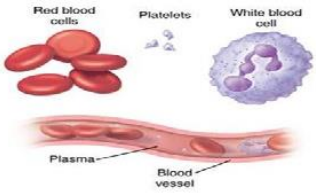
*These are cells – Prokaryotic and Eukaryotic – **circle** the one that is Prokaryotic*




Neuron


bacterium





What makes prokaryotic cells different from Eukaryotic cells?

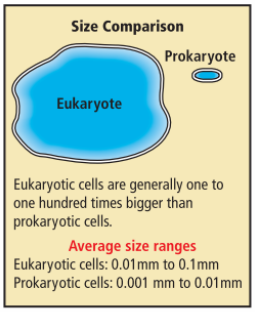
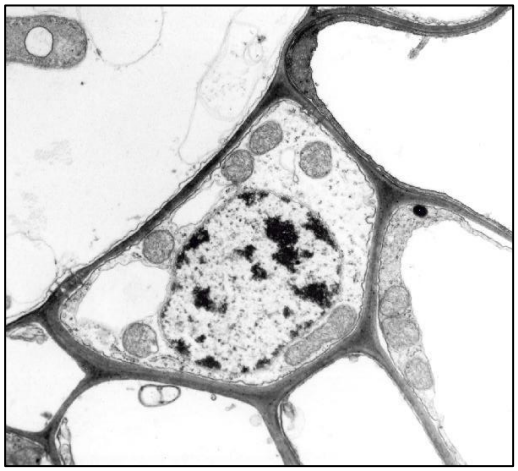


Figure 1.25 Sizes of eukaryotic and prokaryotic cells

CELL STRUCTURE

- Cells are filled with smaller structures that work together so the cell functions properly.
- The structures inside a cell are called _____**.** Different types of cells can have different types of organelles, but some organelles can be found in all cells.
- Some organelles can be seen by looking through a _____ microscope, while others need a _____ to observe



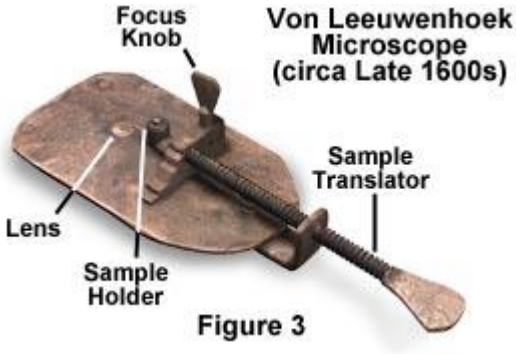
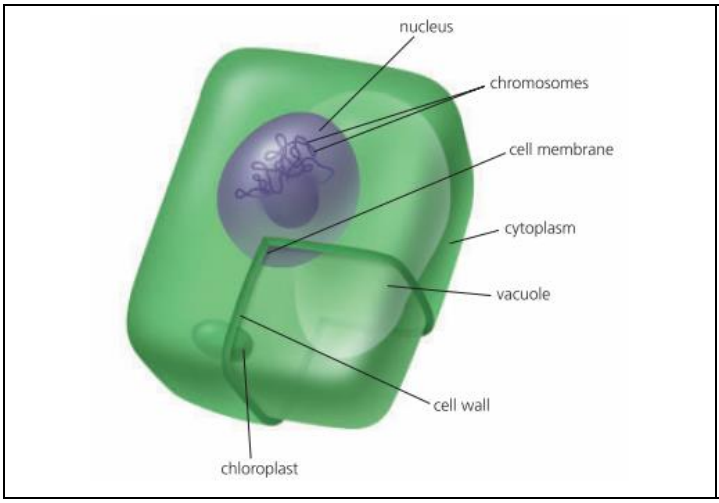
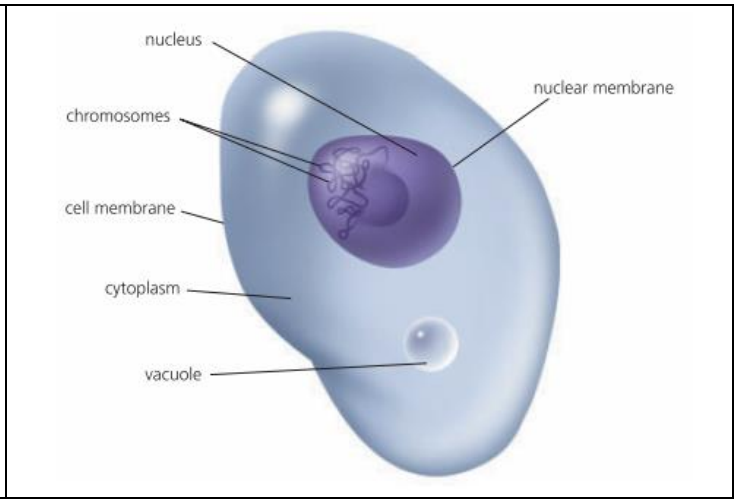


Figure 3

ORGANELLES THAT CAN BE SEEN WITH A LIGHT MICROSCOPE



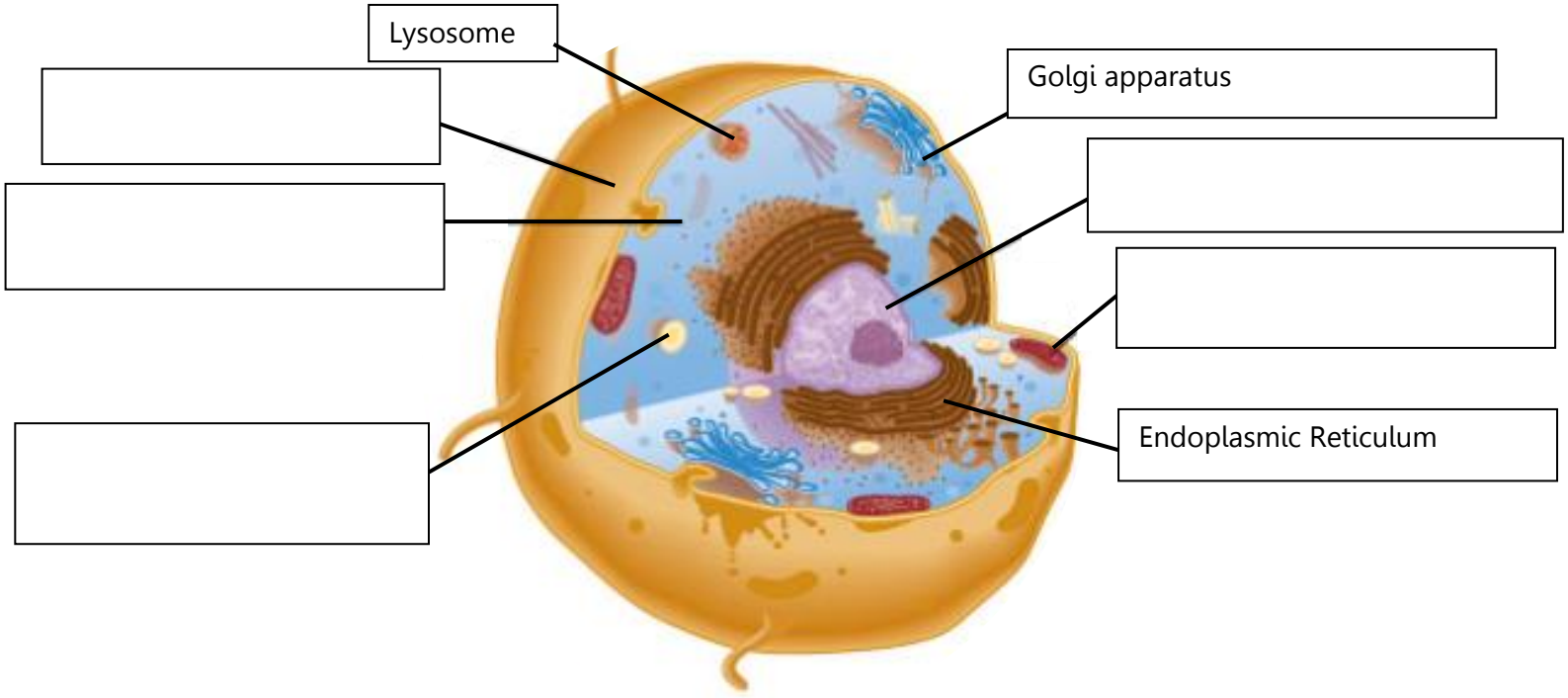


Which organelles do you only find in plant cells? _____

Which organelle is larger in a plant cell than in an animal cell?_____

Animal Cell
The animal cells has many structures including: **cell membrane, nucleus and cytoplasm.**

Inside the cell's cytoplasm are parts of the cell that have specific functions and are known as **organelles**. Some organelles include: **mitochondria**, **ribosomes**, **endoplasmic reticulum**, **golgi apparatus vesicles**, **and lysosomes**. The diagram below shows an animal cell fill in the boxes with the appropriate bolded word from the explanation above.



The cell above has many small dots in the cytoplasm that represent the **ribosomes** which are very small organelles that produce proteins. Proteins are required for cell growth, repair, and reproduction.
Inside the cell nucleus you will find **chromosomes** which contain the DNA (genetic information) for the cell and its parts.

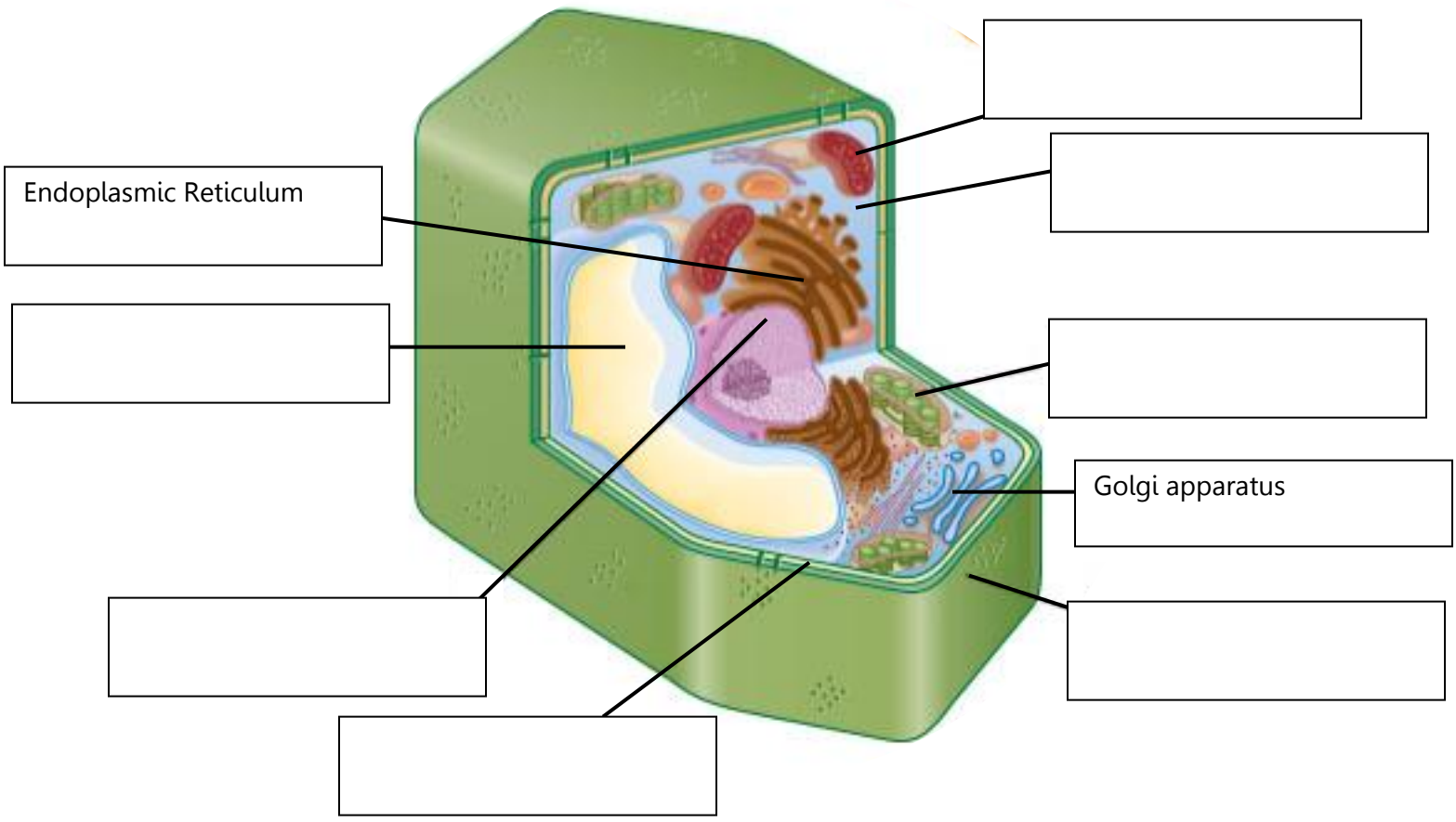
Fill in the blank with the appropriate bolded word from above.

1. The part of the cell that controls the cells activities is the _____
2. Inside the nucleus you will find the genetic information in the _____
3. The semi-permeable membrane that surrounds the cell is known as the _____
4. The storage place inside the cell is known as the _____
5. The watery fluid that is found filling is the _____
6. Inside the cytoplasm you will find parts of the cell known as _____
7. These tiny organelles produce proteins and are known as _____
8. The recycler and cleaner organelles in the cells is called a _____
9. The organelle that stores and packages proteins is known as the _____
10. The organelles that provide the cell with energy through cellular respirations are the

    _____
11. A series of folded membranes that carry material through the cytoplasm and come in a rough and smooth type are called _____

Plant cell

Plant cell structures include 2 additional parts: **cell wall, and chloroplasts** and a much larger **vesicle.**
Use the words above as well as the bolded words found in the animal cell section to fill out the boxes below.



Fill in the blanks with the appropriate **bolded words**.

1. The organelle that creates food energy for the plant is known as a _____
2. The _____ takes up much more of the cell in plant cells then in animal cells.
3. The structural component of the cell that protects and supports it is the _____

The nucleus of plant and animal cells are is surrounded by a nuclear membrane and they are therefore known as **eukaryotic cells** while in some one celled organisms, like bacteria, the nucleus does not have a membrane and they are called **prokaryotic cells**.

In the table below list the similarities and differences between the plant and animal cell:

Similarities between plant and animal cells	Differences between plant and animal cells

Watch the videos on celery rehydrating and explain why using the differences between plant and animal cells.