

Name: _____

Per: _____

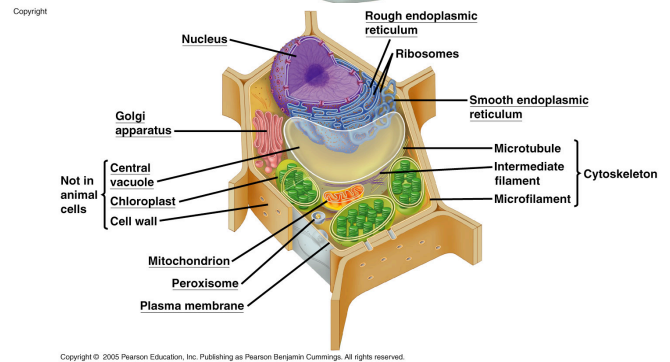
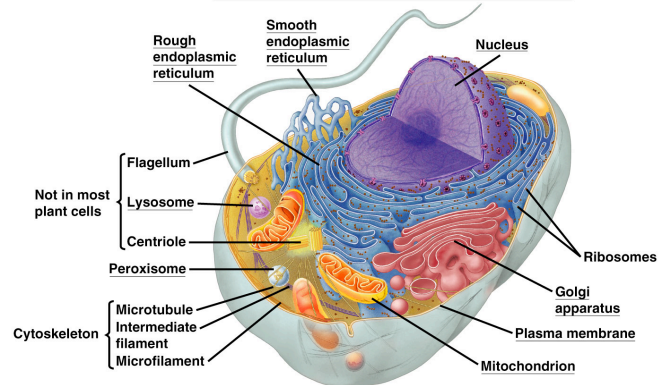
3-D Model of the Animal Cell

Background: you have learned that eukaryotic animal cells contain organelles, and that each one has a different function. In this activity, you will have a chance to create a 3-D cell with all the individual organelles.

Requirements: your cell must be your own original creation. You must include all the organelles listed below, and they all must be **LABELED**. Make sure you don't use a previous year's project. The cell must be 3-D (not a drawing). Use your **notes** and the **book** (Chapter 7) to complete your project, *not just the ones pictured here on the diagram to the right.*

Organelles you MUST include & label them ALL:

- cell membrane
- cell wall (plant cells only)
- nucleus
- nucleolus
- nuclear membrane
- nuclear pores (all over exterior of nucleus)
- mitochondria (2-3)
- vacuole (1) - **OR**, central vacuole, in plant cells
- lysosome (1) – found in both plant **AND** animal cells
- peroxisome (1)
- rough endoplasmic reticulum
- smooth endoplasmic reticulum
- Golgi apparatus (1), with Golgi vesicles (2-3) near it
- cytoplasm
- ribosomes (some attached to rough E.R. **and** some free floating in cytoplasm)
- centrioles (1) - pair in animal cell only, not plant cell)
- microtubules
- cilia (plant cells do not have cilia)
- flagellum (1) – plant cells do not have a flagellum



If your project is a plant cell, **make sure you know what the plant cell does and does not contain! Ask me for details.**

When will it be due? Monday, November 30th. You may turn it in late, but one letter grade will be deducted for every day your project is late. You will have plenty of time to work on it, so don't procrastinate! You may turn it in early. *If you choose to make an edible cell, let me know with **ADVANCE NOTICE**.*

How it will be graded?

Remember, your labs & projects are worth 20% of your grade. This project is worth 50 points, divided up like this:

- All organelles, present & labeled -----30 pts
- Neat (not messy) -----10 pts
- 3-D, original -----10 pts

→ → **Don't forget to put your NAME somewhere on your project!!!!** ← ←