**Cell Organelles Guided Notes**

**Overview**

Why do cells have organelles or “tiny organs”?

**What organelles can be found in plant and animal cells?**

* **Cell wall**
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ found outside of the cell membrane
	+ Helps to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the cell
	+ Gives the cell its \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ Found ONLY in \_\_\_\_\_\_\_\_\_\_\_\_\_\_ cells
	+ Why cells need it?
		- Cells might get \_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_ without it
* **Cell Membrane**
	+ The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that surrounds the cell and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the cell
	+ Establishes an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ environment
	+ Determines what is allowed to \_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_ the cell
	+ Found in BOTH \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cells
	+ Why cells need it?
		- To maintain \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
		- \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ can come in, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_ can go out
* **Nucleus**
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the cell’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (brain)
	+ Contains \_\_\_\_\_\_\_\_ (genetic information)
	+ Found in BOTH \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cells
	+ Why cells need it?
		- Something needs to \_\_\_\_\_\_\_\_\_\_\_\_\_\_cells’ activities
		- Similar to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ running a state or country
* **Cytoplasm**
	+ The living material \_\_\_\_\_\_\_\_\_\_\_ the \_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the \_\_\_\_\_\_\_\_\_\_\_\_\_
	+ Clear, thick, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ Found in BOTH \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cells
	+ Why cells need it?
		- Makes sure all of the organelles are in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ spot
		- Similar to our \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and body cavities keeping our organs in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ places
* **Mitochondria**
	+ The organelles that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_” of the cell
	+ Found in BOTH \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cells
	+ Why cells need it?
		- All living things require \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to survive
		- Similar to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ plant supplying energy for a city or town
* **Endoplasmic Reticulum**
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that run through the cytoplasm
	+ Carry \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and other materials from one part of the cell to another
	+ Found in BOTH \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cells
	+ Why cells need it?
		- Proteins are like the \_\_\_\_\_\_\_\_\_\_\_\_ that help build cells
		- These tools need to be \_\_\_\_\_\_\_\_\_\_\_\_\_\_around to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ of the cell so that they can do their jobs
* **Ribosome**
	+ The organelles that \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ Found in BOTH \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cells
	+ Why cells need it?
		- Used to make the “tools” or \_\_\_\_\_\_\_\_\_\_\_\_ that build things in the cell
* **Chloroplasts**
	+ Large, \_\_\_\_\_\_\_\_\_\_\_, oval shaped organelles in which \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ takes place
	+ Found ONLY in \_\_\_\_\_\_\_\_\_\_\_\_\_\_ cells
	+ Why cells need it?
		- Photosynthesis means making \_\_\_\_\_\_\_\_\_ (energy) from \_\_\_\_\_\_\_\_\_\_\_\_\_
		- Plants use chloroplasts like we use \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* **Vacuole**
	+ Large, round, ­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ floating in the cytoplasm
	+ The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ area of the cell (stores food, water, and other materials)
	+ Found in BOTH \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cells
	+ Why cells need it?
		- The cell needs \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of different things
		- Much like we have \_\_\_\_\_\_, \_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_ reserves
* **Golgi Apparatus**
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ materials for \_\_\_\_\_\_\_\_\_\_\_\_\_ from the cell
	+ Found in BOTH \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cells
	+ Why cells need it?
		- Cells need to export things from its \_\_\_\_\_\_\_\_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ environment
		- Much like how we use \_\_\_\_\_\_\_\_ to ship things from one \_\_\_\_\_\_\_\_\_\_\_\_\_ to another

**What two organelles are only found in plants?**

1.
2.

**List the organelles that are found in BOTH plants and animals from the above notes**

1.
2.
3.
4.
5.
6.
7.

