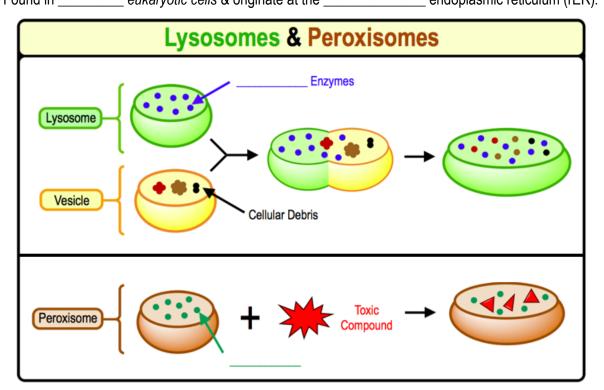
## **CONCEPT:** ENDOMEMBRANE SYSTEM: DIGESTIVE ORGANELLES

•Recall: some of the organelles of the endomembrane system are more specialized for *cellular* \_\_\_\_\_\_.

## Lysosomes & Peroxisomes

 	: acidic vesicles of <i>digestive</i> enzymes that <i>breakdown</i> & <i>recycle</i> food, debris, bacteria, etc.				
□ Primarily found	only in	_ <i>cells</i> & originate at the _	apparatus.		
	_: vesicles of enzymes that	at breakdown	_ compounds (ex. H <sub>2</sub> O <sub>2</sub> ) & fatty acids.		
□ Found in	oukarvotic colls & ori	iginate at the	andonlasmic raticulum (rED)		



**PRACTICE:** Hydrolytic enzymes must be segregated and packaged to prevent general destruction of cellular components. In animal cells, which of the following organelles contains these hydrolytic enzymes?

- a) Rough ER.
- b) Central vacuole.
- c) Smooth ER.
- d) Lysosomes.
- e) Golgi apparatus.

PRACTICE: Which of the following organelles are involved in cellular digestion?

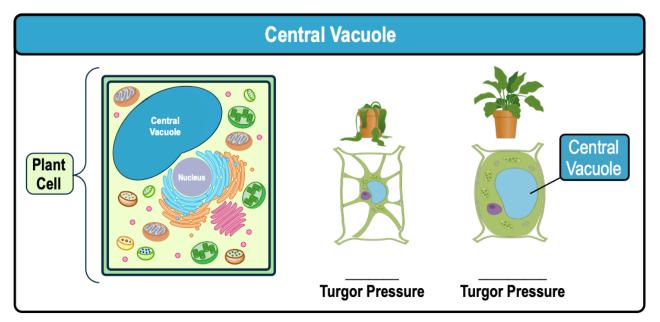
- a) Golgi Apparatus & Vesicles.
- b) Nucleus & Nucleolus.
- c) Lysosomes & Peroxisomes.
- d) Smooth & Rough Endoplasmic Reticulum.
- e) Nucleus & Chloroplasts.

## **CONCEPT:** ENDOMEMBRANE SYSTEM: DIGESTIVE ORGANELLES

## **Central Vacuole**

●Central	: large membrane-enclosed vesicle in	cells that degrade & recycle molecules
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□ Other functions include filling up with *water* to exert \_\_\_\_\_\_ *pressure* against cell membrane.



PRACTICE: Which are recycling centers for the cell?

- a) Ribosome and Golgi apparatus.
- b) Endoplasmic reticulum and chloroplast.
- c) Mitochondria and nucleus.
- d) Central vacuole and lysosome.
- e) All are correct.

**PRACTICE:** Which type of plant organelle often occupies the majority of the cell's volume?

- a) Food vacuole.
- b) Plant vacuole.
- c) Central vacuole.
- d) Contractile vacuoles.
- e) Chloroplasts.