Eukaryotic Cells

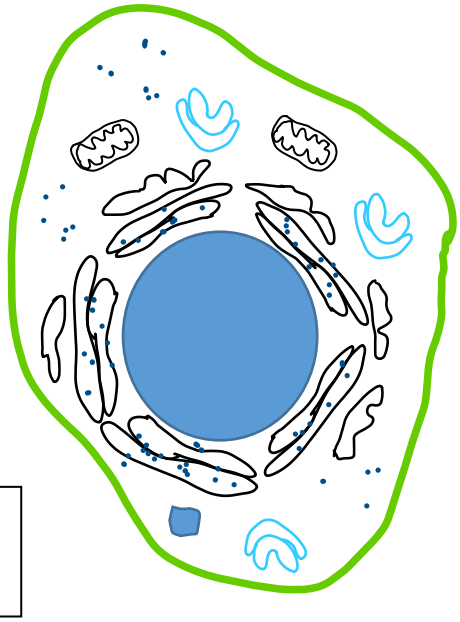
1. Eukaryotic cells have internal _____ resulting in _____ and their DNA is enclosed in a _____ _____. Also, the DNA in a eukaryote is **associated** with _____ proteins.
2. Below is a rough representation of a pancreatic _____ cell. Add **straight lines** to the correct structures and then complete the labels and annotations. Circle the imperfections in the diagram.

_____: site of _____ respiration. It has ___ membranes.

Rough _____ _____: has _____ ribosomes which _____ proteins that will _____ the cell.

_____ ribosomes (___ S): _____ proteins that will _____ the cell.

_____: contains _____ enzymes for the _____ of macromolecules.



_____ membrane: controls the _____ and _____ of substances.

_____ _____ _: site of _____ of proteins.

_____: the region containing _____ composed of DNA . It has a _____ membrane with _____.

_____ : site of many _____ reactions, including _____ respiration.

Smooth _____ _____: has __ ribosomes. It is involved in _____ synthesis and _____ contraction.

3. Missing from the schematic is the cytoskeleton. It is made of _____ and _____. It has many functions, including supporting cell division: _____ (to grow and replace cells) and _____, which is to produce gametes.
4. _____ cells are also eukaryotic. They have three additional structures: the _____ _____, which helps give structural support as it is made of _____, and _____ which are needed for _____ as these organisms are autotrophs. There is also a large _____ _____, which contains the cell sap. The cell you should be able to draw from this type of organism is called a _____ _____ cell.
5. _____ cells are also eukaryotic. Their cell _____ are composed of _____.
6. Exercise. If the actual size of this cell is 15 μm, work out the magnification of the diagram.

