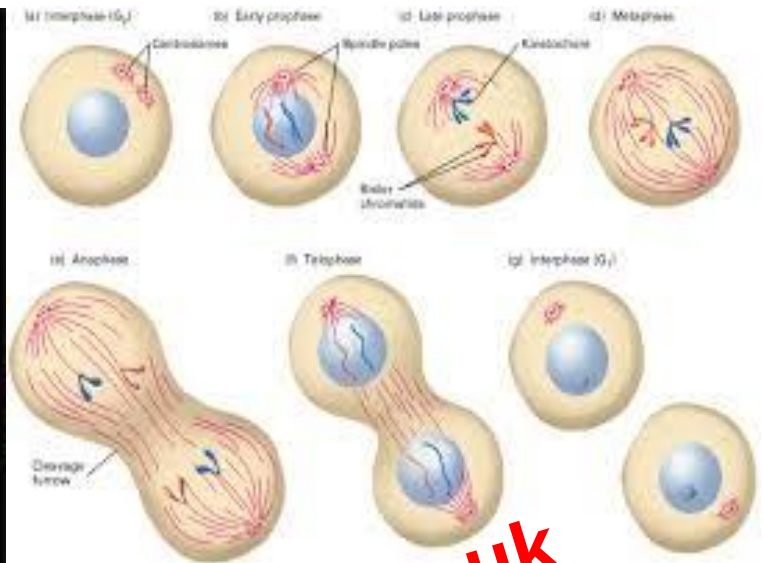
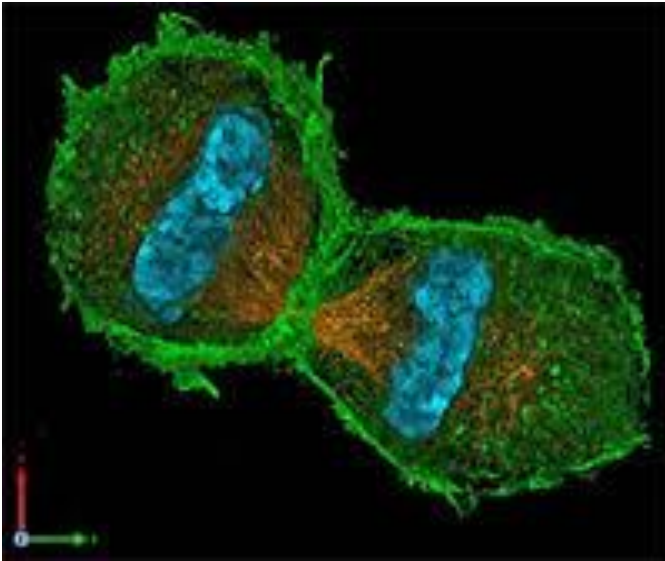


How do cells maintain Homeostasis?

Essential Question: How do cells maintain homeostasis?

Focus Question: Why and how do cells divide?



True or False?

- Cells divide so the organism can survive.
- Prokaryotes and Eukaryotes divide the same way.
- Each new cell only has half the DNA of the original.
- Mitosis is when a cell divides completely.
- Cancer occurs because cells divide too slowly, so they form empty spaces called tumors.

Why Cells Reproduce

- Turn and Talk: Why do you think cells reproduce?
- Size - Cells don't grow larger and larger forever, instead, they divide.
- Maintenance - New cells are needed to help tissues and organs grow.
- New cells - As old cells die new cells take their place. New cells also replace damaged cells.

Cell Size

- A cell grows larger by building more cell products. To do this, the cell must take in more nutrients, process them, and get rid of wastes.
- A cell's ability to exchange substances is limited by its surface area-to-volume ratio. As a cell gets larger, substances must travel farther to reach where they are needed.

Cell Maintenance