**EOG REVIEW for CELLS, MICROBES & INFECTIOUS DISEASE:**

USE THE FOLLOWING WORDS TO HELP FILL IN THE BLANKS BELOW: **EUKARYOTE TISSUES O2 ORGANELLES ORGANS CELL MEMBRANE MITOSIS DNA PROTEIN PROKARYOTE CELL WALL MITOCHONDRIA PHOTO NUCLEUS (2) MEIOSIS CHLOROPLASTS CATALYST RIBOSOMES ATP (2) CHROMOSOMES GLUCOSE RESPIRATION (2) SEXUAL ASEXUAL BACTERIA PROTIST PARASITE CO2 METABOLISM PHOTOSYNTHESIS CYTOPLASM**

**A(n) \_\_\_\_\_\_\_\_\_\_\_\_\_cell** has no nucleus and is single-celled organisms. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are our most common type of these.   
A(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_ cell has a nucleus and is usually in multicellular organisms, but \_\_\_\_\_\_\_\_\_\_\_ that live in water are unicellular and can hurt us as a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   
  
\_\_\_\_\_\_\_\_\_\_\_\_\_ 🡪Cells \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_  organ systems   
  
**Identify the cell parts:**

**\_\_\_\_\_\_\_\_\_\_** - in ALL CELLS; controls movement in and out of the cell  
**\_\_\_\_\_\_\_\_\_\_** – supports and protects plant cells, bacteria & fungi cells  
**\_\_\_\_\_\_\_\_\_\_**– gel-like material inside ALLcells, made of water and \_\_\_\_\_\_\_\_\_\_\_.  
**\_\_\_\_\_\_\_\_\_\_**– directs cell activities and contains DNA.  
**\_\_\_\_\_\_\_\_\_\_**– made up of DNA and contains the traits and characteristics of an organism  
**\_\_\_\_\_\_\_\_\_\_**– where proteins are made and used to make cell parts & tissues; in ALL cells.  
**\_\_\_\_\_\_\_\_\_\_** – produces \_\_\_\_ energy from carbohydrates and releases it to the cell

**\_\_\_\_\_\_\_\_\_\_** – capture light energy and use water and carbon dioxide to make carbohydrates (glucose)  
**Chlorophyll** – green chemical in plants acts as a \_\_\_\_\_\_\_\_\_\_\_\_\_ to speed up photosynthesis reaction

**\_\_\_\_\_\_\_\_synthesis Equation: Sunlight (energy)+ 6 CO2 +6H2O 🡪 C6H12O6 + 6 \_\_\_\_ \*\*\*FLIP IT\*\*\***

**YOU GET: Cell\_\_\_\_\_\_\_\_\_\_\_\_\_ Equation: C6H12O6 + 6 O2 🡪\_\_\_\_ energy + 6 \_\_\_\_\_ +6 H2O**

**Homeostasis**– when the cell membrane maintain stability in the cell.  
**\_\_\_\_\_\_\_\_\_\_**– the process through which phytoplankton make\_\_\_\_\_\_\_\_\_\_ (sugar) using sunlight and water.   
**\_\_\_\_\_\_\_\_\_\_** – the process through which a cell break down glucose into energy (ATP) to be used by the cell.  
**\_\_\_\_\_\_\_\_\_\_** – the process by which the \_\_\_\_\_\_\_\_\_\_ divides in eukaryotic cells  
**\_\_\_\_\_\_\_\_\_\_** – process **where reproductive sex cells divide**

**\_\_\_\_\_\_\_\_\_\_** -- is the set of [life](http://en.wikipedia.org/wiki/Life)-sustaining [chemical processes](http://en.wikipedia.org/wiki/Chemical_reactions) within the cells of living [organisms](http://en.wikipedia.org/wiki/Organisms) by which energy is made available.

**DISEASE AGENTS & BIOTECHNOLOGY**

* **DISEASE CAUSERS: pathogens=contagions**
  + **VIRUSES—**not “alive,” need \_\_\_\_\_cell to replicate
  + **BACTERIA—**binary fission with \_ \_ nuclei—very \_\_\_\_\_\_ reproduction
  + **PARASITES—**bigger worms or protists (malaria) feed off us, hopefully NOT \_\_\_\_\_\_\_\_\_ us.
  + **FUNGI—**athletes foot, ringworm, as a heterotrophic d\_ \_ \_ \_poser they also can attack the F \_ \_ D we eat!
* **VIRUSES vs. BACTERIA**

cause FLU cause many infections

need to V\_ \_ \_INATE need to use ANTIBIOTICS—but NOT OVERUSE!

need to UPDATE VACCINES beware of ANTIBIOTIC \_\_\_\_\_\_\_\_\_\_\_

------------------ **BOTH CAN MUTATE FAST & EVOLVE-------------**

can trip up your \_ \_ \_ to can \_\_\_\_\_\_\_\_\_\_\_\_exponentially fast

possibly cause cancer

* **Outbreak= citywide  
  Epidemic= countrywide  
  PANdemic=W\_ \_ \_ \_wide!**
* **Best way to prevent a FLU from spreading: V \_ \_ \_INATE!**

**(Does a vaccine destroy viruses? \_\_\_\_\_ Vaccine get your body’s I \_ \_ UNE SYSTEM ready to fight off the v \_ \_ \_ \_.)**

* **If you DON’T KNOW what the INFECTIOUS AGENT is….**

**...AVOID C\_ NT\_CT WITH EACH OTHER AS MUCH AS POSSIBLE!**

* **PROTEINS (meats) = build tissue & C\_ \_ \_ parts**

**CARBOHYDRATES (best are fruit & veggies) = E\_ \_RGY**

* **BIOTECHNOLOGY = life + technology = genetically modified living things! Especially used in \_ G R \_ C\_ L \_ U \_ \_ so we can feed more people.) Also used in medicines (like diabetes I \_ \_ \_ \_ \_ \_ ) and G \_ \_ \_ therapy**