

**Summer Assignment 2022-2023**

**Due: First week of school – Aug 22<sup>nd</sup> – 26<sup>th</sup>, 2022**

Welcome to the Pre-AP Biology Class!

Pre-AP Biology is an honors class that requires good study habits and work ethic. The summer assignment will better prepare you for what to expect during the first couple of weeks of the school.

**Materials required**

- a. White index cards, lined or unlined, markers/color pencils/crayons
- b. Access to Internet

**Assignments:**

1. **Vocabulary flashcards** - Students will create vocabulary flash cards for the given (below) 25 vocabulary words.

**Front of card:**

- Draw a picture that represents the selected word. The picture should be colored.
- No words should be on this side of the card.

**Back of Card:**

- List the vocabulary word
  - Define each word
  - List one or two “linking words” or a phrase (what is a more simplistic or more concrete way to describe the chosen vocabulary word?) ▪ Example: Cell Wall- “support”
1. Biomolecules
  2. Monomer
  3. Polymer
  4. Carbohydrates
  5. Saccharides
  6. Lipids
  7. Glyceride
  8. Fatty acids
  9. Protein
  10. Amino acids
  11. Enzymes
  12. Nucleic acids
  13. Nucleotide
  14. Nitrogenous base
  15. DNA
  16. RNA
  17. Prokaryotic cell
  18. Eukaryotic cell
  19. Cell membrane
  20. Cell wall
  21. Flagella
  22. Pili
  23. Nucleoid
  24. Nucleus
  25. Mitochondria

Vocabulary cards should be put in a **small Ziploc with your name** on it.

2. **Biographies** – This part you will be turning it online once school starts. At least one page for each scientist.

Write the name as a Title at the top of the page. **Summarize** their contributions to science.

- Gregor Mendel - Genetics
- Hershey & Chase – Experiments to identify genetic material
- Rosalind Franklin – Structure of DNA

3. **Latin Roots** – Create a table and copy the following prefixes and suffixes with their meanings (Can turn this in along with your biographies online)

Prefix	Meaning	Prefix	Meaning
a-	Without, negative, not	Glycol-	Sugar, sweet
Aer-, aero-	Air, oxygen	Haplo-	Single
Anti-	Against	Hem-, hemo-	Blood
Auto-	Self	Hetero-	Different
Bacter-	Bacteria	Homo-	Same
Bi-	Two	Hydro-	Water
Bio-	Life	Hyper-	Above, excess
Calor-	Heat	Hypo-	Under, beneath, lacking
Chlor-	Green	Iso-	Equal
Cutis-	Skin	Karyo-	Nucleus, nut
Cyto-	Cell	Macro-	Large
Derm-	Skin	Meso-	Middle
di-	Two	Micro-	Small
Dia-	Across, through	Path-	Disease
Diplo-	Double	Phago-	eating
Ect-	Outer, external	Photo-	Light
En-, em-	In	Poly-	Many
End-, endo-	Within	Pro-, poto-	Before, primary
Epi-	Above, upon	Sacchar-	Sugar
Erythro-	Red	Sapro-	Decay, rotten
Eu-	Good, well, true	Somato-	Body
Ex-, exo-	Out of, outer	Uni-	One
Flagell-	Whip	Vas-	Vessel
Gam-, gamo-	United, joined	Zyg-	Yoke, union
Suffix	Meaning	Suffix	Meaning
-ary	Of or relating to	-meter	Instrument to measure
-ase	Enzyme	-oisis	Affected with, condition
-ate	Having, resembling	-otomy, -tomy	Act of cutting, incision
-ation	Process	-ous	Characterized by, full of
-blast	Embryonic layer, to destroy	-phagia	Eating, swallowing
-cide	Kill	-philic	Love
-cretion	Process of separating	-phobia, -phobic	Fear
-cyte	Cell	-phyll	Leaf
-emia	Blood	-plasm	Material forming cells
-ferent	Carry, bring	-scope	Instrument for viewing
-form	Shape	-sis	Act, state, condition
-genic	Producing, generating	-stasis	Slowing, stable state
-gestion	To carry	-synthesis	Combining of separate elements or substances
-ic, -tic, -ical, -ac	Having to do with	-therm	Heat
-logy	Science of, study of	-troph	Nourish
-lysis	Dissolving, destruction	-tropism	Turning, responding to