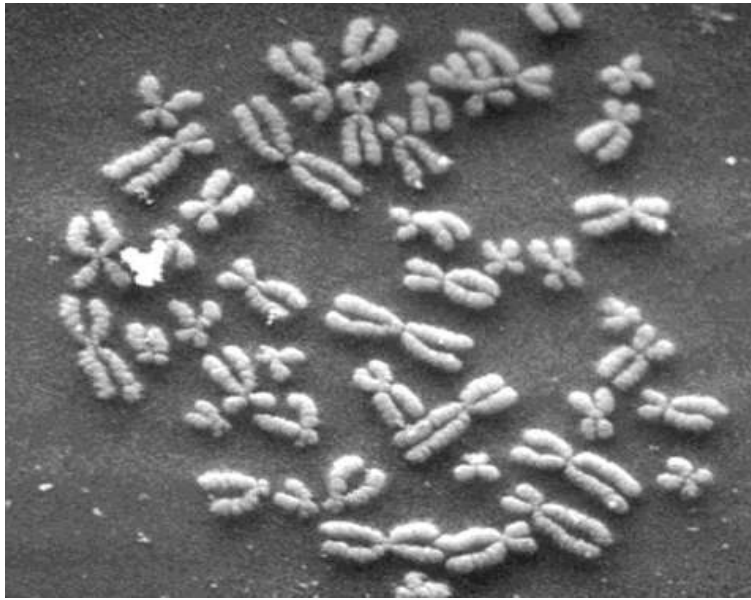


Name: _____



Biology Summer Assignment

Dear Students:

Welcome to Biology! In order to do well in this course, you need to become fluent in the language of the discipline. Biology includes an extensive set of vocabulary words and phrases that you will most likely be unfamiliar with. However, there are tricks to figuring out new vocabulary words, terms, etc. Often, terms in biology come from a set of root words as well as prefixes and suffixes that give us clues as to what the terms mean. You will also be required to apply what you have learned in physics and chemistry in Biology.

This Summer Assignment will touch upon both of these ideas to help prepare you for the coming year. It will count as your first grade for the year so make sure you start off the year strong! Good Luck!

Mr Gold

Name: _____

Dr Hnatzuk

PSI Biology Prefix and Suffix Reference Sheet

Prefix/Suffix	Definition	Prefix/Suffix	Definition
<i>a-</i>	without	<i>multi-</i>	many
<i>ab-</i>	away from	<i>mut-</i>	to change
<i>ad-</i>	near	<i>myco-</i>	fungi
<i>aero-</i>	air	<i>neco-</i>	corpse
<i>alveus</i>	cavity	<i>neur-</i>	nerve
<i>arthron-</i>	joint	<i>nomen-</i>	name
<i>atrium-</i>	entrance room	<i>niga-</i>	black
<i>auto-</i>	self	<i>oculo-</i>	eye
<i>bacterio-</i>	bacteria	<i>oligo-</i>	few
<i>bi-</i>	two	<i>-oma</i>	tumor
<i>bio-</i>	life	<i>omni-</i>	all
<i>carnis-, carn-</i>	meat	<i>oo, ovum</i>	egg
<i>chele-</i>	claw	<i>osteo-</i>	bone
<i>chloro-</i>	green	<i>paleo-</i>	old
<i>chroma-</i>	color	<i>ped, pod</i>	foot
<i>-cide</i>	killer of	<i>peri-</i>	around
<i>con-</i>	with	<i>pestis</i>	plague
<i>cytis-</i>	pouch	<i>phaeo-</i>	brown
<i>-cyte, cyto-</i>	cell	<i>phage-</i>	to eat
<i>dermis-,</i>	skin	<i>-phore</i>	bearer
<i>derm-</i>		<i>photo-</i>	light
<i>di-</i>	two	<i>-phyll</i>	
<i>ecto-</i>	on the outside	<i>-phyte,</i>	leaf
<i>endo-</i>	inner, inside	<i>phyto-</i>	plant
<i>epi-</i>	upon	<i>pino-</i>	to drink
<i>eu-</i>	true	<i>plankto-</i>	drifting
<i>exo-</i>	outside of	<i>poly-</i>	many
<i>feto-</i>	fetus	<i>pseudo-</i>	false
<i>gastro-</i>	stomach	<i>primordis-</i>	original
<i>-gen</i>	producing	<i>pro-</i>	first
<i>geo-</i>	earth		

Name: _____

<i>gymno-</i>	naked	<i>renes-</i>	kidney
<i>halo-</i>	salt	<i>reptilis-</i>	crawling
<i>hemato-</i>	blood	<i>rhiza, rhizo-</i>	root
<i>hemi-</i>	half	<i>rodere</i>	to gnaw
<i>herb-</i>	plant	<i>sacchrum</i>	sugar
<i>hetero-</i>	other	<i>sapros-</i>	rotten
<i>histo-</i>	tissue	<i>-scopy</i>	observation
<i>homo-</i>	same, like	<i>soma-</i>	body
<i>hydro-</i>	water	<i>sonus-</i>	sound
<i>hyper-</i>	over	<i>sperma-</i>	seed
<i>hypo-</i>	under	<i>spirare</i>	breathe
<i>inter-</i>	between	<i>-stasis</i>	position
<i>intra-</i>	within	<i>taxis</i>	arrangement
<i>iso-</i>	equal	<i>telo-</i>	end
<i>-itis</i>	infection	<i>thallus</i>	green shoot
<i>karyo-</i>	nucleus	<i>therm-</i>	heat
<i>leuco-</i>	white	<i>thrombos</i>	clot
<i>locus</i>	place	<i>trans-</i>	across
<i>-logy</i>	study of	<i>tri-</i>	three
<i>lysis</i>	to loosen, break	<i>troph-</i>	feed
<i>macro-</i>	large	<i>umbilicus</i>	navel
<i>maxilla</i>	jaw	<i>uni-</i>	one
<i>mensis</i>	month	<i>vasculum</i>	vessel
<i>mesos-</i>	middle	<i>vor-</i>	to eat, devour
<i>meta-</i>	between	<i>xero-</i>	dry
<i>micro-</i>	small	<i>zoo-, zoa-</i>	animal
<i>mono-</i>	one	<i>zygon-</i>	yoke
<i>morph-</i>	form	<i>-ase</i>	enzyme
		<i>-ose</i>	sugar

Part I Instructions: Define the following terms using your prefix-suffix reference sheet. Underline the prefix &/or suffix in each biological term. Use a separate sheet of paper if necessary.

- **Example: THERMOMETER** – *therm* means heat & *meter* means measure. Therefore, a thermometer is an instrument used to measure heat.

Name: _____

1. Biology
2. Osteocyte
3. Dermatitis
4. Epidermis
5. Hematology
6. Herbicide
7. Neuritis
8. Protozoa
9. Carnivore
10. Polysaccharide
11. Hypertension
12. Hypodermic
13. Macronucleus
14. Pseudopod
15. Intracellular
16. Osteocyte
17. Endoskeleton

Part II Instructions: Using your prefix-suffix reference, write the biological term for each of

Name: _____

the following layman's terms. Use a separate sheet of paper if necessary.

- **Example: A bacteria killer** – *cide means killer so the term is bactericide.*

16. White cell

17. Outside skeleton

18. Middle layer of the leaf

19. Outside of the cell

20. Study of animals

21. Study of form

22. A one-celled organism

23. A term describing an organism made up of many cells

24. Green leaf

25. Person that studies cells

Part III Chemistry in Biology:

As you learned last year in Chemistry – everything is made of chemicals. This is also true of all living things. We are all made up of chemicals, the majority of which fall into one of 4 types of “biomolecules,” also known as, “macromolecules.” (From what you learned in the last section, what do you think a “macro”-“molecule” is?)

Instructions: To learn about biomolecules watch the following videos and complete the chart that follows. You may also want to take notes on the back of the chart about the different types of Biomolecules.

Amoeba Sisters

Biomolecules

<https://www.youtube.com/watch?v=YO244P1e9QM>

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Bozeman:

Biomolecules

<https://www.youtube.com/watch?v=PYH63o10iTE>

Carbs

https://www.youtube.com/watch?v=_zm_DyD6FJ0

proteins

https://www.youtube.com/watch?v=2Jgb_DpaQhM

Nucleic acids

<https://www.youtube.com/watch?v=NNASRkIU5Fw>

Lipids

<https://www.youtube.com/watch?v=VGHD9e3yRIU>

Name: _____

compound	What is the monomer Called?	Made up of which Elements?	What are some of the functions?	Example of the macromolecule.
Carbohydrate				
Protein				
Nucleic acid				
Lipid	X			

Part IV Expand your horizons

Name: _____

Now is your opportunity to explore the world around you and learn more about something that interests you.

Instructions: Below is list of episodes from a famous documentary series called *Planet Earth*. Each episode focuses on a different region of the world such as deserts, caves, oceans, and more. Select a topic that is of interest to you. After you have finished watching the video, respond to the following questions. Spelling counts!

Planet Earth episodes

https://www.youtube.com/results?search_query=planet+earth+full+episode

Questions:

1. What was the title of your episode, or, what areas did the episode focus on?
2. Pick an animal that was focused on in the episode. What special traits did this organism have which allowed it to be successful in its environment?
3. What energy sources (food sources) did this organism need to survive?
4. What factors pose a threat to this organism? What makes it struggle to survive?
5. List 3 things that you learned or that you found especially interesting.