Name: _____

9th Grade 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!

PSI Biology Prefix and Suffix Reference Sheet

Prefix/Suffix	Definition	Prefix/Suffix	Definition
a-	without	***multi-***	many
ab-	away from	***mut-***	to change
ad-	near	***myco-***	fungi
aero-	air	***neco-***	corpse
alveus	cavity	***neur-***	nerve
arthron-	joint	***nomen-***	name
atrium-	entrance room	***niga-***	black
auto-	self	***oculo-***	eye
bacterio-	bacteria	***oligo-***	few
bi-	two	***-oma***	tumor
bio-	life	***omni-***	all
carnis-,carn-	meat	***oo, ovum***	egg
chele-	claw	***osteo-***	bone
chloro-	green	***paleo-***	old
chroma-	color	***ped, pod***	foot

-cide	killer of	***peri-***	around
con-	with	***pestis***	plague
cytis-	pouch	***phaeo-***	brown
-cyte, cyto-	cell	***phage-***	to eat
dermis-, derm-	skin	***-phore***	bearer
di-	two	***photo-***	light
ecto-	on the outside	***-phyll***	leaf
endo-	inner, inside	***-phyte, phyto-***	plant
epi-	upon	***pino-***	to drink
eu-	true	***plankto-***	drifting
exo-	outside of	***poly-***	many
feto-	fetus	***pseudo-***	false
gastro-	stomach	***primordis-***	original
-gen	producing	***pro-***	first
geo-	earth	***renes-***	kidney
gymno-	naked	***reptilis-***	crawling
halo-	salt	***rhiza, rhizo-***	root
hemato-	blood	***rodere***	to gnaw
hemi-	half	***sacchrum***	sugar
herb-	plant	***sapros-***	rotten
hetero-	other	***-scopy***	observation
histo-	tissue	***soma-***	body
homo-	same, like	***sonus-***	sound
hydro-	water	***sperma-***	seed
hyper-	over	***spirare***	breathe
hypo-	under	***-stasis***	position
inter-	between	***taxis***	arrangement
intra-	within	***telo-***	end
iso-	equal	***thallus***	green shoot
-itis	infection	***therm-***	heat
karyo-	nucleus	***thrombos***	clot
leuco-	white	***trans-***	across
locus	place	***tri-***	three
-logy	study of	***troph-***	feed

lysis	to loosen, break	***umbilicus***	navel
macro-	large	***uni-***	one
maxilla	jaw	***vasculum***	vessel
mensis	month	***vor-***	to eat, devour
mesos-	middle	**xero-**	dry
meta-	between	**zoo-, zoa-**	animal
micro-	small	**zygon-**	yoke
mono-	one	**-ase**	enzyme
morph-	form	**-ose**	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: <u>THERM</u>O<u>METER</u> –** *therm means heat & meter means measure. Therefore, a thermometer is an instrument used to measure heat*.

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 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.*

18. White cell

19. Outside skeleton

20. Middle layer of the leaf

21. Outside of the cell

22. Study of animals

23. Study of form

24. A one-celled organism

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

26. Green leaf

27. Person that studies cells

Part III Expand your horizons

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

Instructions: Below is a 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.