Honors Biology Summer Packet

In this summer assignment, you will be familiarizing yourself with science terms that we will be using at different points throughout the year. The following page documents the list of terms.

Due Date: Friday, September 6, 2020. To be submitted online via email.

Project Directions:

1. Collect 20 items from the list of terms.
   - When I say "collect", I mean you should collect that item by finding it and taking a photograph of that item.
   - You do not need to find the exact item on the list, say for example, if it is an internal part to an organism, but you must apply the term to the specimen you find and explain how it relates to your photo
   - Please compile the photos and explanations in a document. Format of the project is the student's choice. Recommendations include: PowerPoint, Prezi, MS Word, Blog. This is the document you will need to submit digitally to: richmonda3@memphismchs.org by 9/6/20. Put your name and honors biology assignment in the subject section. *For example: Anika Richmond Honors Biology Assignment.* You may submit your project via email at any time up to and including the due date. This will be your first laboratory grade in Honors Biology.
   - All sources used must be documented. No Wikipedia or answers. yahoo, etc. During the year we will be using APA format for our references.

2. Example: If you choose the term "phloem", you could submit a photograph you have taken of a plant leaf or a plant stem and then explain what phloem is and specifically where phloem is in your specimen.

3. Original Photos Only: You cannot use an image from any publication or the Web. You must have taken the photograph yourself. The best way to prove that is to place an item in all of your photographs that only you could have added each time; something that you might usually have on you like a pen, or a coin, or a key, or your phone, etc. Each photo may only be used one time.

4. Natural Items Only: All specimens must be from something that you have found in nature. Take a walk around your yard, neighborhood, and town. DON'T SPEND ANY MONEY! Research what the term means and in what organisms it can be found... and then go out and find one. Take your list on vacation with you and snap some pictures for your project.

5. A note to those of you without digital cameras: First off, these don't have to be high quality images, if we can tell what is in the photo that is acceptable. Most cell phone cameras will suffice if you have a means to transfer photos off them (connecting to your computer and emailing them to yourself, etc.) Please make sure that you don't run up extra charges on your cell phone bill for this though.

6. Cautions: Never touch plants or animals with exposed fingers. Avoid touching the organisms but if you must, use gloves and/or forceps. Remember, we don't want to deplete the environment. Don't kill organisms. Organisms should be photographed in their native habitat

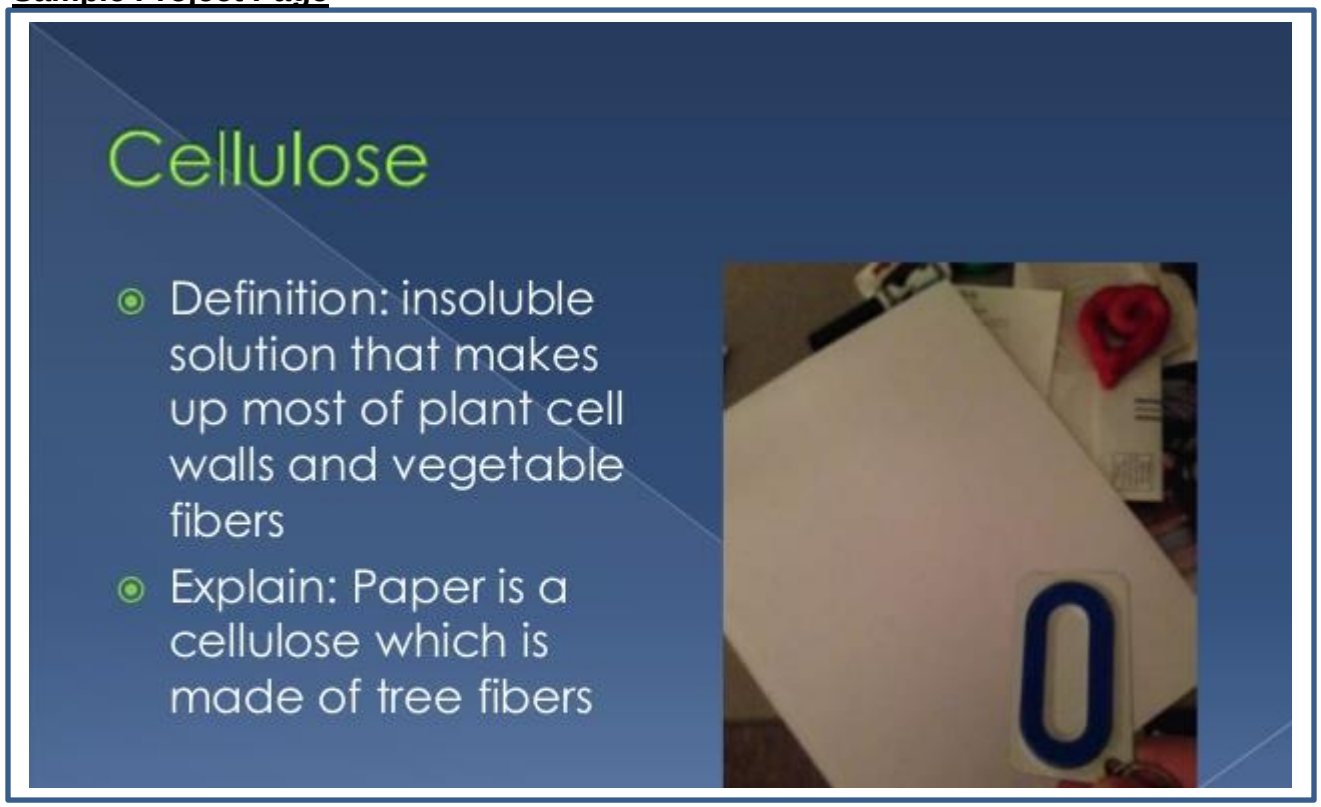
7. Reference: Refer to the citation chart https://owl.purdue.edu/owl/research_and_citation/using_research/citation_style_chart.html

8. Rubric: Refer to the rubric and example for the expectations of the assignment.

Biology Collection Terms

cellular respiration
glycolysis
lactic acid fermentation
oxidative phosphorylation
autotroph
Calvin cycle
chlorophyll
greenhouse effect
photoautotroph
photosynthesis
asexual reproduction
carcinoma
cell division
chromosome
fertilization
gamete
diploid cell
haploid cell
homologous
meiosis
mitosis
sexual reproduction
carrier
genotype
heterozygous
homozygous
pedigree
phenotype
Punnett square
double helix
mutagen
mutation
semiconservative model
adaptation
biogeography
evolution
gene pool
homologous structures
microevolution
natural selection
population
vestigial organ
abiotic factor
biogeochemical cycle
biotic factor
detritivore
ecological niche
ecological succession
invasive species
keystone species
primary production
primary succession
compound
electron
isotope
amino acid
carbohydrate
cholesterol
dehydration reaction
denaturation
deoxyribonucleic acid
enzyme
fat
gene
hydrolysis
hydrophilic
hydrophobic
isomers
lipids
monomer
polymer
monosaccharide
nucleotide
organic compound
phospholipid
polysaccharide
protein
cell theory
endosymbiosis
eukaryote
prokaryote
organelle
plasma membrane
prokaryotic cell
active transport
diffusion
endergonic reaction
endocytosis
energy
exergonic reaction
facilitated diffusion
feedback inhibition
hypertonic solution
hypotonic solution
isotonic solution
noncompetitive inhibitor
osmosis
passive transport
phagocytosis
pinocytosis
receptor-mediated endocytosis

Sample Project Page



1. What is the term?
2. Define the term depicted in photo.
3. Explain how the photo relates to your term?
4. Reference your sources using APA format for each term.

Reference Examples:
Encyclopedia
Posner, R. (1987). Romance languages. In The Encyclopedia Britannica: Macropedia (15th ed.). Chicago, IL: William Benton.

Webpage or Piece of Online Content. If the page names an individual author, cite their name first:
Lastname, F. M. (Year, Month Date). *Title of page*. Site name. URL
For example:
Price, D. (2018, March 23). *Laziness does not exist*. Medium. **https://humanparts.medium.com/laziness-does-not-exist-3af27e312d01**

Rubric

	Poor 0 pts	Fair 5 pts	Satisfactory 7 pts	Excellent 10 pts
Vocabulary Definitions Definitions echo the term with correct science application.	Poor Definitiions did not echo or reflect the term, or were missing altogether	Fair Fewer than seven definitions reflected or echoed the terms in complete sentences with the appropriate science application.	Satisfactory Eight or nine definitions reflected or echoed the terms in complete sentences with the appropriate science application.	Excellent Each definition correctly echoes/reflects the term in a complete sentence with the appropriate science application.
Drawing or Image Images must have source documentation.	Poor No image or drawing	Fair Image is hastily drawn, or is not neatly attached or documented. It shows little relationship to the term.	Satisfactory Image or drawing is somewhat clarifying, no documentation exists.	Excellent Image is documented and adds important information clarifying the meaning of the term with unique item in the all photos.
Reference Citation Documentation	Poor Correct citation was given for fewer than seven terms.	Fair Correct citation was given for seven or eight terms.	Satisfactory Correct citation was given for nine terms.	Excellent Correct citation was given for all twenty terms.
Paraphrase/Rewording Definitions were in students own words	Poor Definitions were copied word for word, or student did not provide source documentation, or work were not submitted at all.	Fair Six or seven definitions were correctly reworded from the documented source.	Satisfactory Eight or nine definitions were correctly reworded from the documented source.	Excellent Every definition was correctly reworded from the documented source.
Vocabulary Language Spelling/Grammar	Poor Assigned terms, and grade-level words were misspelled, or missing.	Fair There are more than 10 errors in either spelling or grammar. (This includes grade-level words, and science terms.)	Satisfactory There are more than 2 but less than 10 errors in either spelling or grammar. (This includes grade-level words, and science terms.)	Excellent There are 0 - 2 errors in either spelling or grammar. (This includes grade-level words, and science terms.)
Sentence Structure Age appropriate	Poor Most sentences are missing and they are not correctly structured.	Fair Some sentences are missing and they are correctly structured.	Satisfactory Most sentences are present and they are well structured.	Excellent At least two sentences one for definition and one for the term. All sentences are very well structured.
Punctuality On Time	Poor The project was not turned in more than one day late.	Fair The project was turned in one day late.	Satisfactory	Excellent The project was turned in on time.