

Name:

Date:

Class:

Summer Work AP Biology 2020-2021

This sheet has the assignments for this summer that will end up being 10% of your term one grade. Your notes must include the key terms, diagrams, concept checks, and questions identified. Your sources for notes are the textbook, prep book, and online videos. *This will result in three different sets of notes.* The critical thinking assignment comes with two other handouts that specifically detail the assignment. Plan on this work taking 20-25 hours over this summer. For pacing recommendations I would suggest having the first set of notes complete by the end of July.

Below you will find the required books and materials to purchase over the summer

TEXTBOOK: This needs to be the hard copy!

Biology in Focus (will have close up picture of a snow leopard)

Campbell 2nd edition (very important that you get the 2nd edition!)

ISBN-13: 978-0321962751

N.B. It cannot be the iBook version as the pages, diagrams, and questions are all different.

PREP BOOK:

AP Biology

Barron's

ISBN-13: 978-1438008684

SUMMER READING BOOK:

The Body: A Guide for Occupants

Bill Bryson

ISBN: 978-0-8575-2241-2

CLASS MATERIALS (I would recommend Amazon to use for purchase):

½ inch ring binder

5 ring binder dividers

Calculator (can be scientific, graphing, or basic)

1 pad of graph paper

1 pad of lined paper

1 box of 12 pencils (I would recommend MUJI or Amazon)

Required Work: (instructions found in this packet for each assignment)

1. Notes

a. Evolution

b. Chemistry of Life

2. Summer Reading synopsis-The Body: A Guide for Occupants

3. Critical thinking paper-"Would you create an AI or genetically modified organism"

Required Notes Evolution:

Textbook:

| Unit 6: Evolution | |
|---|--|
| Textbook: CH 19 Descent with Modification <input type="checkbox"/> Figures: 19.10, 19.16 <input type="checkbox"/> Test your understanding: 1-5, 6 | Textbook: CH 20 Phylogeny <input type="checkbox"/> Figures: 20.2, 20.5, 20.10, 20.11, 20.12 <input type="checkbox"/> Test your understanding: 1-7, 8, 10 |
| Textbook: CH 21 Evolution of Populations <input type="checkbox"/> Figures: 21.7, 21.8, 21.9, 21.11, 21.19 Test your understanding: 1-6, 7 | Textbook: CH 22 <input type="checkbox"/> Figures: 22.3, 22.5, 22.14, 22.16 <input type="checkbox"/> Test your understanding: 1-6, 8 |

Prep Book:

| |
|---|
| (Barron's): CH 11 Evolution: Key terms and diagrams only |
|---|

Video Notes:

| |
|---|
| Key terms and any relevant information you deem important. <i>Bozeman</i> : 1-8 <i>Amoeba Sisters</i> : Classification and Evolution (playlist) |
|---|

Required Notes: Biochemistry

Textbook:

| Biochemistry | |
|---|---|
| Textbook: CH 2 Chemical Context of Life <input type="checkbox"/> Figures: 2.8, 2.14, 2.17, 2.21, 2.23 <input type="checkbox"/> Test your understanding: 1-8, 12 | Textbook: CH 3 Carbon and Molecular Diversity <input type="checkbox"/> Figures: 3.6, 3.7, 3.10, 3.15 (c and d only), 3.17, 3.19, 3.22, 3.23, 3.26 <input type="checkbox"/> Test your understanding: 1-9, 14 |

Prep Book:

| |
|--|
| (Barron's) CH 1 Biochemistry: Key terms and diagrams only |
|--|

Video Notes:

| |
|---|
| Key terms and any relevant information you deem important. <i>Bozeman</i> : 2, 01, 42, Water: A polar molecule, Chi-squared test <i>Amoeba Sisters</i> : Biomolecules and Biochemistry (playlist) |
|---|

Critical Thinking Assignment:

Question: If given the chance, which would you create an AI or a genetically modified organism?

| Learning Goals | Criteria | Mastery (5) | Proficiency (4) | Needs Improvement (3) | Fails to Meet Standard (2) |
|------------------------------------|-------------------------------------|---|--|--|--|
| Data analysis and Interpretation | Defense of Reasoning | *Cites specific, calculated data to support argument *references two difference sources | *Mentions some appropriate data to support argument *references one source | *Mentions data to accept to support argument but may be inappropriate or irrelevant *doesn't reference source | *Makes an argument without defending reasoning. |
| | Context | *Thoughtfully connects specific data to discussion of scientific context *references subject matter covered in class. | *Connects general data to discussion of scientific context *doesn't reference subject matter covered in class | *Connects data to discussion of scientific context, but may be irrelevant or incorrect *doesn't reference subject matter covered in class | *Does not connect data to larger scientific context |
| Communication | Writing— Structure and organization | *Shows clarity by organizing main ideas and supporting details within paragraph structure *accurate grammar and spelling | *Shows clear main ideas, but lacks supporting details, may lack paragraph structure *one minor error | *May combine main ideas and details in an indistinguishable way *two minor errors | *Lacks main ideas and/or details *more than two errors *exceeds one page |
| Overall Score on Assessment | Comments: | | | | |

Requirements:

Paragraph 1: Establish your argument.

Paragraph 2: Cite information from the book to support your argument. This could be an example of how the technology you are siding with is used.

Paragraph 3: Provide a counter argument and include factual information to support. Conclude with more information to support your reasoning.

References section in APA format should be included.

Make sure to underline anything that is considered factual information, not “common knowledge”, and you haven’t thoroughly paraphrased (i.e. don’t copy and paste)

Limit is one page double spaced!

Citing an Article from a Website in APA Format

What do I need to include?

You need **4 pieces of information** to cite a magazine or journal article or newspaper story from a website.

1. **Author's name**
2. **Date = (Year, Month, Day)** **Do not forget the parens around the date*
3. **Title of your article**
4. **Website URL/address**

Examples of Website References with All Four (4) Pieces of Information

Andrews, R.G. (2019, May, 17). The volcano that built Bermuda is unlike any other on Earth. Retrieved from <https://www.nationalgeographic.com/science/2019/05/bermuda-volcano-hybrid-unlike-others-on-earth-new-way-to-make-volcanoes/>

Perkins, Sid. (2019, May, 16). Teen astronomer finds a planet with two suns. Retrieved from <https://www.sciencenewsforstudents.org/blog/eureka-lab/ISEF-2019-teen-astronomer-finds-planet-two-suns>

Wegener, D. T., & Petty, R. E. (1994). Mood management across affective states: The hedonic contingency hypothesis. Retrieved from <https://psycnet.apa.org/record/1994-41071-001>

**EXAMPLE:
TWO
AUTHORS
(Use an & not**

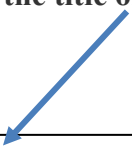
the word “and”)

Examples of Website References with Missing Information

Sometimes, one or more of these four (4) pieces of information is missing. This might include no author, or no date.

- This is an example where there is no author.
- When there is no author the title of the article moves to the author position which is first.

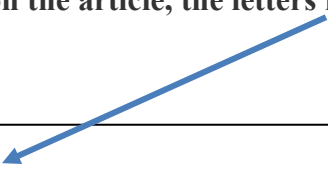
**EXAMPLE:
NO AUTHOR**



All 33 Chile miners freed in flawless rescue. (2010, October 13). Retrieved from http://www.nbcnews.com/id/39625809/ns/world_news-americas/

- This is an example where there is no date.
- When there is no date listed on the article, the letters n.d., which stand for no date, are substituted in place of a year.

EXAMPLE: NO DATE



The College of William & Mary. (n.d.). The William & Mary mission statement. Retrieved from <http://www.wm.edu/about/administration/provost/about/mission/>

Based on APA Publication Manual, 6th Edition (2009) and APA Style Guide to Electronic References (2012)

Summer Reading Assignment:

Write a one page synopsis of the book. Include any interesting facts your learned in the three paragraphs it will take to write this one page synopsis.

Outline:

- a. 1st paragraph: Summarize the book
- b. 2nd paragraph: Connect what you have read to your life/body. (this is open ended)
- c. 3rd paragraph: Identify some interesting facts you have learned and pick a body system you would like to learn more about. Explain reasoning.