

# GECA Honors Biology Summer Assignment 2026-2027

## Purpose:

- Introduce important concepts in Honors Biology and how they connect with one another.
- Practice identifying claims, evidence, and reasoning.
- Make connections between the content of biology and your life.
- [The Survival of the Sickest](#) is a story of biology. Biology is amazing, and we only get to cover a tiny slice of that awesomeness in class. This book should increase your depth of knowledge in an area we won't have time to appreciate in class. You do not have to complete this entire assignment during the summer, but it will give you a head start if you can get started and work on it before school begins.

## **Assignment 1: Questions as you read the text: Answer using COMPLETE SENTENCES. This can be digital (typed) or hard copy (hand written).**

### ***Introduction:***

1. What disorder does the author have and how is this connected to the purpose and title of this book?  
(*what question/topic is the author trying to address?*)

### ***Chapter I***

2. Quote: "Why would you take a drug that is guaranteed to kill you in forty years? One reason, right? It's the only thing that will stop you from dying tomorrow"  
What does this quote mean to you in terms of genetics, natural selection and life evolving on this planet?

### ***Chapter II***

3. What does the wood frog do to stay alive in freezing temperatures and how does this relate to type I Diabetes in humans?

### ***Chapter III***

4. Explain why Inuits have darker skin even when living with little sunlight? Explain how this relates to vitamin D, melanin production and sun exposure for the Inuits specifically.

### ***Chapter IV***

5. Why was the ability to taste bitterness an advantage for us when it first evolved? Why might it not be today?

### ***Chapter V***

6. Why aren't sneezes just symptoms of a cold? **Why** is sneezing both good for us and bad for us?

### ***Chapter VI***

7. How did sunspot peaks potentially cause flu outbreaks? (Explain the mechanism of how a sunspot would actually cause the flu outbreak in terms of genetics)

### ***Chapter VII***

8. Explain epigenetics and discuss how it might be part of the cause for childhood obesity. (How does this relate to a mother's diet causing obesity in her baby?)

### ***Chapter VIII***

9. What is the aquatic ape theory and what does it possibly explain about human evolution? What traits might have been advantageous in water compared to land?

### ***Conclusion***

10. Looking back at all of the insights provided in this book, explain what “Survival of the sickest” means to you now in terms of genetics and evolution

## **Assignment 2: Claim, Evidence, Reasoning**

An important science skill is to be able to make a claim, support that claim with evidence, and explain why that evidence supports the claim. This is a skill we will be working on throughout the year. Equally important is identifying claims, evidence, and reasoning in the writing of others, as it helps us truly understand what the author is saying, and if the author is right.

As you read the book, identify **three claims** the author has made. For each claim, do the following (preferably typed, should be one long paragraph or so each):

1. State the claim. If copied directly from the text, cite it. Otherwise, put it in your own words.
2. Identify the evidence. What evidence does the author use to support the claim? Choose claims backed up by more than one piece of evidence. Again, if copied directly from the text, cite it. Otherwise, put it in your own words.
3. Explain how the evidence supports the claim. The author may have done this for you, or you may have to do it yourself.
4. Evaluate the evidence. Is it sufficient to support the claim? Is there conflicting evidence? What additional evidence would need to be provided for the claim to be fully supported?

## **Assignment 3: Text-to-self connections**

Biology is the study of life, but sometimes it is easy to get mired down in the details of what we are learning and lose sight of the fact that we are learning about ourselves and the world around us.

1. As you are reading, note **three times** the text resonated with you – maybe an example that applies to you or a family member, or a situation you can empathize with, or something that you couldn't stop thinking about.
2. Quote and cite the text, and explain the connection to your life. **This should take about a paragraph each**, preferably typed.

**The summer assignment is due August 21<sup>nd</sup>**

Here is the link to the book:

 **GECA Grade 9 Biology Survival Of The Sickest [A Medi...**

If you have questions, feel free to email Ms. Wood (your Honors Biology Instructor) at [kamala.wood@gilroyunified.org](mailto:kamala.wood@gilroyunified.org)

Please DO NOT email me the completed assignment, you can turn it in once school starts. You will be given more detailed instructions then. The due date is well after school begins, so you will have plenty of time.

## Rubric for Honors Bio summer HW

### Assignment 1: Questions

<b>Proficient (10)</b>	<b>Approaching (8-9)</b>	<b>Developing (5-7)</b>	<b>Beginning (1-4)</b>	<b>Missing (0)</b>
All answers are well organized, easy to follow and in complete sentences. Draws clear relationships between key points and the text evidence.	Most answers are well organized, easy to follow and in complete sentences. Relationships are drawn between key points and the text evidence, although they may be somewhat unclear.	More than half of answers are well organized, easy to follow. Some answers may lack complete sentences. Structure/ organization for some answers may not be easy to follow and/or little relationship is drawn between key points and the text evidence.	Most of the answers are not organized, not finished or missing. May have many incomplete sentences or missing questions. The answers may not be organized and very difficult to follow. Minimal relationships drawn between key points and text evidence.	Not submitted

Part 1 Total: \_\_\_\_\_/10

### Assignment 2: Claim/Evidence/Reasoning

<b>Criteria</b>	<b>Proficient (3)</b>	<b>Approaching (1-2)</b>	<b>Missing/inadequate (0)</b>
Claim/evidence #1	Claim, evidence, explanation, and evaluation are present and correct	One of the claims, evidence, explanation, or evaluation are missing or incorrect	Two or more of the claim, evidence, explanation, or evaluation are missing or incorrect
Claim/evidence #2	Claim, evidence, explanation, and evaluation are present and correct	One of the claims, evidence, explanation, or evaluation are missing or incorrect	Two or more of the claim, evidence, explanation, or evaluation are missing or incorrect
Claim/evidence #3	Claim, evidence, explanation, and evaluation are present and correct	One of the claims, evidence, explanation, or evaluation are missing or incorrect	Two or more of the claim, evidence, explanation, or evaluation are missing or incorrect

Part 2 Total: \_\_\_\_\_/9

### Assignment 3:Text to self connections

<b>Criteria</b>	<b>Proficient (3)</b>	<b>Approaching (1-2)</b>	<b>Missing/inadequate (0)</b>
Text to self-connection #1	Text is properly cited and quoted, and connection to self is explicit and well explained	Text is quoted or cited but not both, connection to self is explicit and well explained	Text is neither quoted nor cited, OR connection to self is confusing and poorly explained
Text to self-connection #2	Text is properly cited and quoted, and connection to self is explicit and well explained	Text is quoted or cited but not both, connection to self is explicit and well explained	Text is neither quoted nor cited, OR connection to self is confusing and poorly explained
Text to self-connection #3	Text is properly cited and quoted, and connection to self is explicit and well explained	Text is quoted or cited but not both, connection to self is explicit and well explained	Text is neither quoted nor cited, OR connection to self is confusing and poorly explained

Part 3 Total: \_\_\_\_\_/9

**TOTAL:** \_\_\_\_\_/28