

Honors Biology Summer Assignment 2023-2024

Welcome to Honors Biology!

The Lassiter Honors Biology course is designed to prepare students for a lifelong appreciation of the life sciences. The curriculum will incorporate the development and application of problem solving, critical thinking, and inquiry-based processing skills. Students will learn how to evaluate laboratory experiments, conduct meaningful investigations, and gain valuable practice in analyzing and reporting data. This class requires a strong work ethic and the ability to work independently. Let's start strong by getting a head-start!

Make sure that you complete all parts of the summer assignment! You may use any resources you choose to complete the assignment. No two students' assignments should be identical and your work should not be copied directly from any of the sources you are using. The assignment will be due on no later than the start of your class period on Friday, August 4th, the last day of the first week of the 2023-2024 school year. Do not wait until the end of the summer to start working! There are 3 sections to complete!

We look forward to having you in class!

The Honors Biology Teaching Team

*****It is recommended that incoming 9th grade Students** get the **study skills book, Study Smarter, Not Harder by Kevin Paul**. Learning to study is one of the biggest challenges most high school freshmen face, so you could use this book as a reference not only in Honors Biology but in all freshmen classes both semesters and throughout your years here at Lassiter.

Section 1: Biology Prefixes and Suffixes

Students say that learning science vocabulary seems like learning a different language. There are many new vocabulary words that you will use during the year. Below is a list of common prefixes and suffixes used in Biology. Learning these will help with your vocabulary throughout the year.

Prefix	Meaning of Prefix	Example Biology Word and Definition
A-		
Ab-		
Amphi-		
Angio-		
Anti-		
Arth-		
Auto-		
Bi-		
Bio-		
Ceph-		
Cyto-		
Derm-		
Di-		
Ecto-		
Endo-		
Eu-		
Extra-		
Gymno-		

Hetero-		
Homo-		
Hydr-		
Hyper-		
Hypo-		
Inter-		
Intra-		
Iso-		
Macro-		
Micro-		
Photo-		
Poly-		
Post-		
Pre-		
Pseudo-		
Sub-		
Therm-		
Trans-		
Tri-		
Uni-		
Zoo-		
Suffix	Meaning of Suffix	Example Biology Word and Definition
-asis		
-blast		
-cyte		
-genic		
-gram		
-graph		
-ism		
-ist		
-kinesis		
-logy		
-lysis		
-oid		
-oma		
-ous		
-phyll		
-philic		
-phobic		
-plasm		
-scope		
-stasis		

Section 2: Hypothesis and Variable Statements

In the following statements, formulate a hypothesis (**written as an “if... then...” statement**) and identify the independent and dependent variables. While working in labs in Honors Biology, it is imperative that you be able to identify the hypothesis and both the independent and dependent variables.

Here is an example:

Question: What effect will salt water concentrations have on the germination of radish seeds?

a.Hypothesis: If radish seeds are exposed to concentrations of salt water above 1%, then the seeds will not germinate.

b.Independent variable: various salt concentrations in water

c.Dependent variable: germination (sprouting) of seeds

1.Will temperature affect the heart rate of a goldfish?

a.Hypothesis _____

b.Independent Variable _____

c.Dependent Variable _____

2.Will salt in soil affect the height of bean plants?

a.Hypothesis: _____

b.Independent Variable _____

c.Dependent Variable _____

3.Will loud music affect the number of tadpoles that develop into frogs?

a.Hypothesis: _____

b.Independent Variable _____

c.Dependent Variable _____

Section 3: Studying

One of the keys to your success in Honors Biology will be your ability to consistently study by going over the material before, during, and after class on a nightly basis. Studying is not the same as completing homework, it isn't something you do only the week of a test, and it isn't just re-reading the notes. Studying requires you to actively engage in reflection, organization, and communication on a nightly basis. Every learner is different and you'll have to decide which strategies work best for you.

- A. Find an online site that gives a free learning style assessment. (Your preferred learning style influences the way you learn) Use one of the search engines and type in "learning styles survey" or "learning styles." Take one of the free tests (make sure it gives immediate results) to find what your learning style is. Once you see your results, find a few suggestions for how to study based on your particular learning style. Write down your learning style (ex: Visual, Kinesthetic, Auditory, Logical, etc.) and some "suggestions" given for studying. We will discuss these during the first weeks of class.

Your Learning Style(s)	Specific Suggestions for Studying
1.	
2.(If tied)	

- B. Read and **summarize** at least 2 note taking or studying strategies that can be done before, during, and after class. Include the name of the website for the **educational institution source** of your information **or** the pages you located the info in the **Study Smarter, Not Harder** book.

Before class I can...

Specific Technique/Strategy	Source of Information
1.	
2.	

During class I can...

Specific Technique/Strategy	Source of Information
1.	
2.	

After class on a nightly basis I can...

Specific Technique/Strategy	Source of Information
1.	
2.	