

# Biology 2023-2024



Instructor: Jeff Heikes Room#: 210 Phone#: 503-667-3186 x1370 Email: jheikes@rsd7.net

## **Required Materials:**

Chromebook, Headphones, Notebook with dividers, Pens/pencils

# Course Description:

Welcome! This course has been developed as an introduction to basic Biology concepts. Biology is the science of understanding how LIFE works in this Universe! From DNA to digesting food, scientists understand how we work! The story of how we learned about these things is amazing! Below is an outline of the topics that we will cover throughout the year:

nit	Topics		
Classification and origins	Origins of life, characteristics of life, and classification of life		
Cell Structure	Endosymbiotic theory, prokaryotes vs. eukaryotes, cell organelles		
Cell Energy	Photosynthesis and cellular respiration		
Cell Transport	Structure of phospholipid bi-layer, passive vs. active transport		
Cell Division	DNA structure and replication, mitosis		
DNA and Gene Expression	Protein synthesis, genetic engineering		
Genetics	Mendelian genetics, Punnett squares, modern genetics, pedigrees		
Evolution and Ecology	Natural selection, predator/prey relationships, biodiversity, ecosystem interdependence, evidence for evolution		

# **Course Calendar** (\*subject to change!)

#### Project Based Learning

Science is all about doing and problem solving. We will do as many inquiry projects as we can. However, testing is an important skill to master as is studying, note taking and group learning are also important. We will also take standardized Mastery assessments. Students will be asked to think critically and relate the content knowledge the current world issues. Depending on the project there will be a mix of group and individual components.

#### Grading Policy Description

- Mastery assignments 70% of grade Tests, Quizzes, and major projects or major labs
- Classwork assignments 30% of grade Labs, homework, small activities, warm ups
- Letter Grade Description & Percentage Breakdown

Grade %	Letter	Description
90-100	A	Advanced Mastery
80-89	В	Meets, is Proficient
70-79	С	Approaching Proficiency
60-69	D	Not Enough Evidence
< 60	F	No Evidence

#### Absences and Late Work: Listen, you can't learn if you aren't here!

- You will be required to make up any work from being absent. You may need to come in after school at times to make up lab work or do a test or quiz retake.
- Many of your materials will be available on Schoology so you can access them outside of class if needed.
- There will be suggested Due Dates to keep you on pace, but there will also be **Hard Deadlines** at the end of each unit. If you miss a **Hard Deadline**, you will need to talk to Reichle about how to make up this work. Not all work will be available after a **Hard Deadline**!

## **Class Expectations**

- 1. Treat everyone in class respectfully; no bigotry of any kind will be tolerated! Show respect for yourself by showing it to your classmates, the teacher, and <u>all</u> guests.
- 2. Be in your seat and ready to work <u>when</u> the bell rings or be TARDY.
- 3. Use language and tone of voice that is appropriate for the classroom.
- 4. Please, **no food or drinks in class** with the exception of water bottles.
- **5.** Cell Phone / Headphone policy: As per school policy, cell phones must be off and away during class. No exceptions. Please also keep music players, headphones, and all other types of electronics stored safely in your backpack during class unless instructed otherwise.
- 6. Ask questions! It's cool to be curious! People who aren't curious are boring. Ask questions and demand answers that make sense to you!

#### **Reynolds Raider Expectations**



- Prepared and Punctual
  - Raiders come to class on time and with all required materials
- Organized
  - Raiders keep their science materials in the science section of their binder.
  - Raiders will write down the daily agenda and important dates in their planner.
- Writers
  - Raiders write and put forth their best authentic work daily.
  - $\circ\;$  Raiders do not plagiarize and copy. Copied work will not receive credit for all parties involved.
- Engaged
  - Raiders are focused in class 100% of the time.
  - Raiders put away <u>all</u> electronics and other distracting items during class time.
- Respectful
  - $\circ$  Raiders respect each other as well as the space and property they occupy
  - Raiders are always respectful and safe during laboratory work.
  - Raiders will respect the room by helping to keep it clean. No food or open drink containers in the classroom.

