# Syllabus and Pacing Guide

## 1.) Syllabus

**Biology**

**COURSE DESCRIPTION**

Biology introduces students to the fundamental principals of life, covering topics of cell structure and function, genetics, evolution and ecoloy. Students will explore the chemical basis of life, the diversity of living organisms, and the interactions between living things and their environment. Laboratory work is often a key component, allowing students to investigate biological phenomena firsthand.

This course is the first semester 1 of a 2-semester course (full-year)

**COURSE SUBMISSIONS**

All assignments will be graded through OnFire. Any attachments must be made in a Word document file, PDF, or Google Doc shareable link and turned in through OnFire or directly to the instructor.

**REQUIRED Materials**

All readings will be provided on OnFire.

**Lab Supplies:**

- Plate
- Birdseed or similar item
- Raisins (representing insects) or similar item
- Tweezers (representing beak) or similar item
- Clothespin (representing beak) or similar item
- Chopsticks (representing beak) or similar item
- 2 paper bags or similar item
- Six beads (three beads of one color and three beads of another color) or similar item
- Two soft licorice sticks (such as Twizzlers®) or similar item
- A number of colorful soft candies (such as gumdrops) or similar item
- Toothpicks or cocktail skewers or similar items

**** Note, modified or alternative labs can be provided to students who do not have the required materials. ****

**GRADING BREAKDOWN**

| | |
|---|---|
| A 94-100% | C 73-76% |
| A- 90-93% | C- 70-72% |
| B+ 87-89% | D+ 67-69% |
| B 83-87% | D 63-66% |
| B- 80-82% | D- 59-63% |

C+ 77-79%  F 58% or below

**GRADED WEIGHT OF SCHOOLWORK**

- It is important to note that you will receive unlimited attempts on all assignments and quizzes until you demonstrate mastery of the content. All quizzes will be randomized and not show the correct answer, making reading the lesson material important BEFORE taking the quiz and completing the assignments.
- **Assignments and Labs: 50%**
- **Quizzes: 20%**
- **Tests and Post-Assessments: 30%**

**INSTRUCTOR EXPECTATIONS AND PACING**

A typical semester course at a traditional high school requires 80 hours in total, which is 40 hours per term. Since this is a self-paced course, completing it may take you longer or shorter. You are expected to spend 3-5 hours each week and submit at least one unit each.

Students can complete the course at a pace that best suits them. You are responsible for completing and turning in all assignments according to their individual needs. However, make sure to look at your school's deadlines, to ensure that you are completing courses on track.

Parents/Guardians can observe and view their student’s progress through OnFire.

**ONLINE TECHNOLOGIES**

This course takes place online. Since we will not meet face-to-face, you must have the necessary technology and technical know-how to work effectively in this online learning environment. This online course will utilize OnFire as the learning management system. Please get in touch with your instructor if you have trouble logging in or viewing any of the documents and links posted.

## 2.) Pacing Guide

In order to help you stay on track and not get behind during the semester here is a pacing guide. If you following this weekly schedule  you will always be on track to finish your work in tinme and will not have a mad crunch at the end.

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| | • Make sure to read the syllabus.<br><br>Unit: Introduction to Biology<br><br>• Submit the following:<br>  ◦ Quiz: Processes of Science<br>  ◦ Quiz: Scientific Theory |
| **Week 2** | Unit: Introduction to Biology<br><br>• Submit the following:<br>  ◦ Quiz: Graphing<br>  ◦ Quiz:  Interpreting Graphical Data |
| **Week 3** | Unit: Introduction to Biology<br><br>• Submit the following:<br>  ◦ Unit Test: Introduction to Biology<br><br>Unit: Cells<br><br>• Submit the following:<br>  ◦ Quiz: Scientific Method<br>  ◦ Assignment: Scientific Method |
| **Week 4** | Unit: Cells<br><br>• Submit the following:<br>  ◦ Quiz: History of Microscopes<br>  ◦ Assignment: 3D Cell Project |
| **Week 5** | Unit: Cells<br><br>• Submit the following:<br>  ◦ Quiz: Structure and Function<br>  ◦ Quiz: Cell Transport<br>  ◦ Quiz: Osmosis |
| **Week 6** | Unit: Cells<br><br>• Submit the following:<br>  ◦ Quiz: Cell Cycle<br>  ◦ Quiz: Cell Processes and Energy |
| **Week 7** | Unit: Cells<br><br>• Submit the following:<br>  ◦ Assignment: Photosynthesis and Respiration Comic Project |
| **Week 8** | Unit: Cells<br><br>• Submit the following:<br>  ◦ Unit Test: Cells<br><br>• Submit the following:<br>  ◦ Post-Assessment Term 1 |

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| **Week 9** | Unit: Genetics<br>• Submit the following:<br>  ◦ Quiz: Genetics<br>  ◦ Lab: Allele Pairing |
| **Week 10** | Unit: Genetics<br>• Submit the following:<br>  ◦ Quiz: Punnett Square Activity<br>  ◦ Quiz: Hamster Activity |
| **Week 11** | Unit: Genetics<br>• Submit the following:<br>  ◦ Assignment: Meiosis<br>  ◦ Assignment: DNA Strand Construction |
| **Week 12** | Unit: Genetics<br>• Submit the following:<br>  ◦ Quiz: Mutations<br>  ◦ Assignment: Technological Advances |
| **Week 13** | Unit: Genetics<br>• Submit the following:<br>  ◦ Unit Test: Genetics<br>Unit: Evolution<br>• Submit the following:<br>  ◦ Lab: Bird Beak |
| **Week 14** | Unit: Evolution<br>• Submit the following:<br>  ◦ Quiz: Evolution<br>  ◦ Assignment: Camouflage |
| **Week 15** | Unit: Evolution<br>• Submit the following:<br>  ◦ Quiz: Evidence of Evolution<br>  ◦ Unit Project: Evolution |
| **Week 16** | Unit: Evolution<br>• Submit the following:<br>  ◦ Quarter 2 Post-Assessment<br>  ◦ Course Completion |