Marine Science 2 Syllabus

School: *Garfield High*

**Garfield High School**

1255 16th Street • San Diego, CA • 92101

(619) 362-4500 ext. 2208

**Teacher**: Camille Fowler

**Room**: 208

**Contact Information**: [cgibson@sandi.net](mailto:cgibson@sandi.net)

**Website**: Google Classroom (class code: \_\_\_)

**Course**: Marine Science 2 (6442)

**Readings:**

1.      Oceanography: An Invitation to Marine Science. 6th Ed.

2.      The Fluid Earth: Physical Science and Technology of the Marine Environment. 3rd Ed.

3.      The LivingOcean: Biology and Technology of the Marine Environment

4.      Newsela and Science World

**Supplies**: COLLEGE RULED JOURNAL (spiral notebook), 3- ring binder (1”), 6 dividers, mechanical pencils and pens.

**Course Description**:  Marine Science is a college preparatory science course that fulfills the a-g requirement for the UC system.  The course is aligned with the Next Generation Science Standards and topics include earth science, physical oceanography, marine biology, environmental science, and technology.

**Course Objectives**

Upon completion of this course, the successful student will:

1.      Understand the role of marine science in today’s world including the current applications to the areas of medicine, biodiversity, conservation, climate change, environment and the significance of these developments.

2.      Develop an appreciation for technology and explain the principles that form the basis for this technology.

3.      Demonstrate an understanding of some of the social, ethical and legal issues associated with some aspects of marine science.

4.      Learn and practice safety in the laboratory.

5.      Be familiar with the scientific method and think critically.

6.      Access and use a wide variety of information sources.

7.     Improve oral, written, numeracy, and, communication skills.

8.      Demonstrate increased positive interaction in the classroom and in small collaborative groups.

9.      Apply crosscutting concepts, such as patterns, cause and effect, scale, systems, energy, structure and function, stability and change to different topics in science.

**Grading**:  Your academic grade will be determined by the following grading scale:

|  |  |
| --- | --- |
| Grade | Percentage Range |
| A | 90-100 |
| B | 80-89 |
| C | 70-79 |
| D | 60-69 |
| NC | BELOW 60 |

**Portfolio**---------------------------------------------------------20% of total grade

**Classwork and Science Journal**----------------------------20% of total grade

**Assessments**----------------------------------------------------20% of total grade

**Homework**-----------------------------------------------------20% of total grade

**Independent Research Project** ----------------------------20% of total grade

**Course Completion**: Completion of either a Marine Science 1 or 2 credit will be based on a measure of proficiency and completion. Completion of a credit will be achieved by satisfying the following requirements: a science journal, formal and informal assessments, homework, classwork and participation and attendance. Additionally, the completion of the Science Portfolio is mandatory.

**Class Work and Homework Assignments**

*Science Portfolio*

The Science Portfolio is a collection of your work completed in Marine Science 1 or 2. It displays a wide variety of work that spans the entire course including labs, projects, multimedia applications, case studies, reading and writing in science, math, applications of problem solving in science and sometimes, even art. A majority of the work is done in the classroom setting with various sections also requiring time outside of class. **The portfolio is a mandatory course requirement which is due at the end of the course but also** **checked weekly**. This is meant as a tool used to sharpen scientific, organization and academic skills.

***Science Journal***

You will be required to maintain a Science Journal in a spiral notebook for this course. The Science Journal includes a table of content, notes, classwork assignments and activities. The journal is graded periodically and must be brought to class every day. **Neatness counts!**

*Independent Research Project*

You will choose a question to investigate and research and ultimately design a project. There is a project timeline and parts of the project that are due throughout the quarter to keep you on track. The independent research project **requires time outside of class**. This project is 20% of your grade.

*Homework:*

You will be assigned homework during this course. It is your responsibility to complete each homework assignment and submit it by the due date. If you do not understand how to complete the assignment, it is your responsibility to ask for help. There are four homework assignments pertaining to a Science in the News article. **You must submit the following**:  annotated article, completed graphic organizer and 1-page summary (typed).

*Absences/Late Work:*

When you have an excused absence, you have one day to make-up the class assignment(s). Lab and quizzes must be made-up after school.**It is your responsibility to check to see what was missed and make-up the assignments**. Late work will be accepted no later than 1 week after the due date (partial credit).

*Tests/Quizzes/Assessments:*

An assessment will be given in the middle and end of the course as well as 3 quizzes throughout.  Exams will be based on the labs, class work, and homework assigned.  Make-up exams will be given only if the absence is excused and must be made-up upon return from the absence (after school).  Group and individual assessments may be given throughout each unit. *Grades are available using Powerschool at:*[*https://powerschool.sandi.net/public*](https://powerschool.sandi.net/public)*.*

**Class Protocols and Rules**:

As a member of this class, I expect you to be respectful of the room, teacher and fellow classmates. Additionally, plagiarism (copying another person’s work) will result in an F for the assignment with no chance to make it up. **All school-wide rules apply**.

*Lab Policies*

Students will abide by all classroom rules during any lab assignment.  A Safety Contract, lesson and test will be administered before any lab is performed. Students will be adequately informed and trained on lab procedures prior to lab usage.  Safety and respect of school property is required at all times.  Any student that exhibits disruptive behavior at any time will be permanently removed from the lab by the teacher and will receive no credit for the lab.  Student may be referred to counselor depending on the incident.

*Tutoring*

All students who have questions or are having difficulty are strongly encouraged to come in for help immediately.  Students may come in after school (**Monday –Thursday 2:45-3:30**) for tutoring with the teacher.

*Bathroom Policy*

You will be allowed to use the bathroom one person at a time. You must wait **30 minutes** after the bell and may not go **10 minutes** **before** the bell.  You will need permission and pass.

*Leaving Class*

Passes to counselors or nurse will only be issued in emergency situations at the discretion of the teacher. Otherwise, issues requiring your counselor’s assistance or any other adult on campus must be handled outside of class time.

|  |  |
| --- | --- |
| **Week #** | **Inquiry Class Activities** |
| 1 | Due as homework: Science Safety Test  Syllabus, Netbook Agreement, Journal with Table of Contents  Portfolio with 6 dividers  LOGIN: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  PASSWORD: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 2 | **Check-In: Top 3 Contenders**  Lab #1  Quiz #1  Portfolio Check  Science in the News 1 |
| 3 | **Background Research Plan worksheet**  Journal Check #1  Portfolio Check |
| 4 | **Bibliography and Research Notes**  Cladograms  Lab #2  Quiz #2  Portfolio Check  Science in the News 2\*\* |
| 5 | **Check-In: Project Type**                                              Midterm Exam  Invertebrates  Midterm Portfolio Check |
| 6 | **Independent Project Draft Due**    Journal Check #2  Portfolio Check  Multimedia Project: TBD  Science in the News 3\*\*  Vertebrates |
| 7 | **Final Project Due**  Lab #3:  Quiz #3  Portfolio Check |
| 8 | Final Portfolio Grading Begins  Case Study: TBD  Science in the News 4\*\* Free Choice |
| 9 | Final Assessment/Quiz  Final Portfolio DUE  Final Journal Check |

***NGSS Guiding Instructional Segments***

**Life Science Instructional Segment 1 Ecosystem Interactions and Energy**   
1. What factors affect the size of populations within an ecosystem?

2. What are common threats to remaining natural ecosystems and biodiversity?

3. How can these threats be reduced?

**Chemistry Instructional Segment 6  Dynamics of Chemical Reactions and Ocean Acidification**   
1. How can you alter chemical equilibrium and reaction rates?

2. How can you predict the relative quantities of products in a chemical reaction?

**Life Science Instructional Segment 6 Ecosystem Stability and the Response to Climate Change**   
1. What effects change in ecosystems that ultimately affect populations?

2. What are the changes that are happening in the climate and what effects are those having on life?

3. How are human activities impacting Earth’s systems and how does that affect life on Earth?

4. What can humans do to mitigate their negative impact on the environment?

**Student Accountability Contract and Parent/Guardian Notification**

As a student, I, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, will be responsible for:

                                                (print full name)

1.      Showing respect and cooperating with adults on campus.

2.      Coming to class on time and prepared to work.

3.      Completing all assignments to the best of my ability.

4.      Respecting the rights of others to learn without disruption.

5.      Showing respect for people and property by not using profanity, stealing or vandalizing.

6.      Practicing the rules of the classroom, school and district.

7.      Spending time at home on assignments given.

8.      Electronic devices stowed away during class time.

DATE: \_\_\_\_\_\_\_\_\_\_

STUDENT SIGNATURE:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

STUDENT EMAIL:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

STUDENT CELL PHONE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Dear Parent/Guardian,

I am looking forward to working with you and your student to make this a great school year.  If you ever have any concerns regarding your student’s progress, please do not hesitate to contact me.  Once you have reviewed and discussed this syllabus with your student, please sign and return this sheet.  I encourage you to provide your email address and times of availability so that I can better communicate with you regarding your student’s progress.

Thank you,

Ms. Camille Fowler

PARENT/GUARDIAN NAME (printed):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

PARENT/GUARDIAN SIGNATURE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

PARENT/GUARDIAN PHONE NUMBER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

PARENT/GUARDIAN EMAIL:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

LANGUAGE PREFERENCE: English\_\_\_\_     Spanish \_\_\_\_    Other:\_\_\_\_\_\_\_\_\_\_\_

OTHER CONTACTS: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_     \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Phone number and time of day it is best to reach you: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_