Marine Science 1 Syllabus (2019-20)

School: *Garfield High*

**Garfield High School**

1255 16th Street • San Diego, CA • 92101

(619) 362-4500 ext. 2208

**Teacher**: Camille Fowler

BS in Marine Biology, MA Teaching and Learning: Curriculum & Design

**Room**: 208

**Course**:  Marine Science 1 (6441)

**Contact Information**: cgibson@sandi.net

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

**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 Living Ocean: Biology and Technology of the Marine Environment
4. Newsela and Science World

**Supplies**: Scientific notebook, mechanical pencils, and pens.

**Course Description:**  Marine Science is a college preparatory science course that fulfills the a-g requirements for the UC system.  The course is aligned with the Next Generation Science Standards (NGSS). Topics include: Earth & space science, physical oceanography, marine biology, environmental science, human impact, and engineering practices.

**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 | Assignment Category | Weight |
| A | 90-100 | Scientific Notebook | 60% |
| B | 80-89 | Homework | 10% |
| C | 70-79 | Assessments | 10% |
| D | 60-69 | Independent Research Project | 20% |
| NC | BELOW 60 |   |   |

|  |  |  |
| --- | --- | --- |
| **Week #** | **The Course at a Glance** | **NGSS Guiding Questions** |
| **1** | Introductions, computer check-out, Google ClassroomScience Safety ContractSyllabus, Netbook Agreement, Scientific Notebook with Table of Contents Science Safety TestCollecting Data | **Physics Segment 2 - Forces at a Distance*** How can different objects interact when they are not even touching?
* How do interactions between matter at the microscopic scale affect the macroscopic properties of matter that we observe?
* How do satellites stay in orbit?

**Chemistry Segment 2 - Heat and Energy in the Earth System*** How is energy transferred and conserved?
* How can energy be harnessed to perform useful tasks?

**Life Science Segment 6 - Ecosystem Stability and the Response to Climate Change*** What effects change in ecosystems that ultimately affect populations?
* What are the changes that are happening in the climate and what effects are those having on life?
* How are human activities impacting Earth’s systems and how does that affect life on Earth?
* What can humans do to mitigate their negative impact on the environment?
 |
| **2** | **Check-In: Top 3 Contenders**Forces and Distance: Kepler’s Laws of Planetary MotionQuiz #1Homework: Science in the News 1\*\* |
| **3** | **Background Research Plan Worksheet**Scientific Notebook Check |
| **4** | **Bibliography**Heat and Energy in Earth’s SystemsQuiz #2Homework: Science in the News 2\*\*    |
| **5** | **Check-In: Project Type & 12 Key Words**Midterm   |
| **6** | **Research Notes (3-5 pages)**Scientific Notebook CheckCase StudyScience in the News 3\*\*  |
| **7** | **Final Project Due**Ecosystem Stability and the Response to Climate ChangeCER Assessment of Independent Project |
| **8** | Final AssessmentMultimedia ProjectsExtra Credit: Science in the News 4\*\* Free Choice |
| **9** | Scientific Notebook  Due |

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

**Class Work and Homework Assignments**

*Scientific Notebook*

You will be required to maintain a scientific notebook for this course. The scientific notebook  includes a table of contents, investigations, notes, and reflections. The notebook is graded 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.**

*Assessments (quizzes formal and informal):*

Assessments will be based on the labs, classwork, and homework assigned.  Make-ups will be given only if the absence is excused and must be made-up upon return from the absence (after school).  There are no make-ups for group assessments.

*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 Science in the News articles.

*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 assignments.** Late work will be accepted no later than 1 week after the due date (partial credit). Twelve (12) absences will result in a No Credit (NC) for the course. Three tardies will count as one absence.

Grades:

Grades are available using PowerSchool:  <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 in lab procedures prior to lab usage.  Safety and respect for school property are 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.  A student may be referred to a 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.

*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.

*Bathroom Policy*

You will be allowed to use the bathroom one person at a time. You must wait **30 minutes** after the bell and you may not go **10 minutes before** the bell.  You will need permission and pass. You are allowed 3 per quarter, no sharing and limited to 5 minutes (or passes will be revoked).

**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 reviewing and completing assignments.
8. Checking my grade early and often via PowerSchool.

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: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_