

# **Marine Science – 6820**

**2009-2010 SCHOOL YEAR**

*Mrs. Wikler*

**Room 902**

mrwikler@interact.ccsd.net

## **Course Overview:**

This one-year course will present general concepts in marine science. Topics covered will include history and technology in marine science, origins of water and dissolved material, properties of sea water, ocean currents, ecological principles of marine systems, survey of oceanic life forms, moral and ethical issues associated with human impact on the marine environment, and career opportunities. This course will fulfill one of the two science credits required for high school graduation and qualifies as a laboratory science for college entrance.

## **Course Goals:**

1. To recount the history and technological advances of marine exploration.
2. To identify the various physical activities involved in ocean basin formation and origins of ocean water.
3. To relate the chemical and physical properties of water and seawater to physical, chemical, and biological oceanic phenomena.
4. To recognize the various forms of motion in marine environments.
5. To identify energy transfers among air, land, and water.
6. To examine the physical and chemical nature of different marine environments.
7. To examine the trophic relationships that have evolved among various community members in marine environments.
8. To identify the roles of marine life in the marine ecosystem.
9. To describe nutrient cycles in the ocean.
10. To identify marine life forms.
11. To identify the relationship between factors that affect marine primary producers.
12. To develop awareness of human impact on the marine environment.
13. To evaluate the moral and ethical issues in the use of marine environments.
14. To explore career opportunities to the study of marine science.

## Units of Study

QUARTER 1	QUARTER 2
<p><b>Topics included throughout the year</b></p> <ul style="list-style-type: none"> <li>· Ocean and Waste Stewardship</li> <li>· Fishing</li> <li>· Harvesting</li> <li>· Careers in Oceanography</li> </ul> <p><b>History and Technology</b></p> <ul style="list-style-type: none"> <li>· History</li> <li>· Latitude and Longitude</li> <li>· Changes in Technology</li> </ul> <p><b>Oceanography</b></p> <ul style="list-style-type: none"> <li>· Origins of Earth and Ocean</li> <li>· Oceans of Ocean Water</li> <li>· Plate Tectonics</li> <li>· Ocean Bottom</li> <li>· World Ocean</li> </ul> <p><b>Properties of Water</b></p> <ul style="list-style-type: none"> <li>· Phases</li> <li>· Molecular Structure/Chemical Characteristics</li> <li>· Physical Properties</li> <li>· Nature of Seawater</li> </ul>	<p><b>Forms of Motion</b></p> <ul style="list-style-type: none"> <li>· Waves, Currents, and Tides</li> <li>· Ocean Circulation (Causes and Importance)</li> <li>· Properties of Waves</li> <li>· Gravitational Motion</li> </ul> <p><b>Trophic Relationships</b></p> <ul style="list-style-type: none"> <li>· Survey of Marine Classification</li> <li>· Biological Adaptations</li> <li>· Trophic Levels</li> </ul> <p><b>Nutrient Cycles</b></p> <ul style="list-style-type: none"> <li>· Food Chains and Webs</li> </ul>
Quarter 3	Quarter 4
<p><b>Marine Environments</b></p> <ul style="list-style-type: none"> <li>· Oceanic Zones</li> <li>· Marine Sediment</li> <li>· Benthic Communities</li> <li>· Abyss Features</li> <li>· Hydrothermal Vents</li> <li>· Intertidal Communities</li> <li>· Estuaries</li> <li>· Types of Estuaries</li> <li>· Coral Reefs</li> </ul> <p><b>Ocean Life</b></p> <ul style="list-style-type: none"> <li>· Marine Producers</li> <li>· Phytoplankton</li> <li>· Cellular Respiration vs. Photosynthesis</li> <li>· Phytoplankton – Counteracting Sinking</li> <li>· Divisions of Algae</li> <li>· Macroalgae</li> <li>· Flowering Plants</li> <li>· Submerged vs. Emergent Plants</li> </ul>	<p><b>Planktonic, Benthic, Nektonic Life</b></p> <ul style="list-style-type: none"> <li>· Taxonomic Classification</li> <li>· Planktonic Life</li> <li>· Holoplankton</li> <li>· Animals</li> <li>· Animal Physiology</li> <li>· Vertebrates vs. Invertebrates</li> <li>· Porifera and Cnidaria</li> <li>· Worms</li> <li>· Mollusca</li> <li>· Arthropoda</li> <li>· Echinodermata</li> <li>· Chordata</li> <li>· Fish</li> <li>· Tetrapods</li> <li>· Marine Reptiles</li> <li>· Marine Mammal</li> </ul>

## General Rules:

- Have all appropriate materials and supplies at your desk and be seated and working when the bell rings.
  - Come into the room quietly and start working on the warm-up assignments which will be posted on the board daily.
  - Cell phones, iPods, makeup, and other personal belongings are not considered appropriate. These will be confiscated if they are seen during class time.
  - Notebooks, textbooks, and writing utensils will be out on the desk when the bell rings.
- Always demonstrate respect for the people, equipment, and furnishings of room 902.
  - Respect others by listening while others are speaking, using appropriate language in class, and keeping objects, hands and feet to yourself.
  - Respect others by helping to maintain a safe lab environment. Make sure you are well informed of all lab procedures prior to starting a lab.
  - Respect this classroom by cleaning up after yourself, and helping as a class to keep the room neat and clean. Desks will be checked daily for vandalism. If you choose to vandalize your desk you will be issued a detention for a first offense.
- Adjust your voice level to suit the activity. During lectures and discussions raise your hand and wait for permission to speak.
  - When we are conducting group activities follow the appropriate procedure for focusing back on the Mrs. Wikler.
- Use only school appropriate language, comments, and behaviors.
  - Profanity will not be tolerated in the classroom.
- Follow all instructions the first time they are given.
  - If you have any questions about an assignment ask both your neighbors for help first. If they do not know then ask Mrs. Wikler.
- Follow all Coronado High School and Clark County School District rules, policies, and procedures (Refer to Student Planner and CCSD Behavior Guidelines for Secondary Students).

## Classroom Expectations

### **Preparedness**

It is the sole responsibility of the student to come to class prepared with all necessary materials; 3 ring binder (@ least 1 ½ inches), cougar planner, calculator, colored pencils, and writing utensil. Failure to do so can affect your grade.

### **Class Routines**

- Pick up handouts sitting on the right side lab table located at the entrance of the classroom.
- Turn in any homework that is due on that day. **IMPORTANT: All homework is due at the beginning of the period! Homework turned in later that day will be considered late and 50% will be deducted.**
- Quietly go to your seat and start your daily warm-up.
  - The daily warm-up assignment is located on the left hand side of the board under your class heading.
  - This includes copying the daily objective, and answering the question of the day (QOD)/Science Short. The objective will inform the student of the topic of the lesson and assignments, and the QOD/Science Short will review previous lessons

or introduce new lessons. These questions will be located on the left hand side of the board under the class title. Students are to write all the information on their handout. These handouts will be collected weekly and will be assigned a grade.

- A reading assignment may be posted in addition or in place of the warm-up activity. If there is not a book at your lab table quietly get one from the front bookcase.
- Make sure any homework assignment for the day is written in your cougar planner.
- As we proceed through the lesson keep your voices at an appropriate level for the activity.
  - If we are doing a lab follow the procedure for focusing your attention back to Mrs. Wikler.
- Always wait for Mrs. Wikler to dismiss class.
- If you are absent follow these procedures:
  - Check the calendar on the wall to see what you missed.
  - Check the folder to see if there are any handouts that you need.
  - Talk to two classmates and ask them what we did in class. If you still need help see Mrs. Wikler after class or before or after school! Please do not ask me when I am starting class. I will not help you at this time, not because I don't want to help you, but because I am really busy getting class started.

### **Class Guidelines**

- Be seated by the late bell.
- It is the sole responsibility of the student to come to class prepared with all necessary materials; notebook, writing utensil, calculator, colored pencils, and cougar planner.
- Seating, lab groups, and lab partners are assigned by me at my discretion.
- Backpacks and other personal belongings not related to science will be placed under your table; leave personal items out of sight. Please make sure belongings are under your desks so I do not trip over them!
- All assignments are posted on the board and will be copied by each student in the student planner; student planners will be randomly checked.
- All assignments will have the same heading (Name, Period, Date); lab reports will have a title page.
- Complete work in pencil, blue or black ink, typed on a computer, or as otherwise instructed.
- All homework is due at the **beginning of the class period** of the due date; turn in work to the student work area at the front of the room.
- A student supply area is maintained in the classroom. All assignments, graded work, and make-up work, are in this area. Keep this area neat.
- We will maintain a clean and undamaged room and equipment; student fine cards will be issued for non-accidental damages.
- The student planner is used as a hall pass.
- Remain seated until **you are dismissed by the teacher**. Do not pack up early.

### **Consequences**

All students will behave appropriately in class. Behavior that interferes with or distracts another student from learning or interrupts teaching will have consequences. If you choose to break a rule or do not follow procedures, the following consequences will be initiated:

- 1<sup>st</sup> check mark = Loss of Perk Day Privileges
- 2<sup>nd</sup> check mark = Phone call home/Completion of Action Plan
- 3<sup>rd</sup> check mark = 45 minute Teacher detention

- 4<sup>th</sup> check mark = Parent/Teacher Conference
- 5<sup>th</sup> check mark = Dean Referral

Checkmarks will be erased monthly and the student will have the opportunity to make better choices the following month.

## **Rewards**

Just as students must adhere to consequences when they make poor choices, students will be rewarded for making good choices. Making good choices in class helps to create a more positive learning environment where everyone benefits. These rewards will be issued daily, weekly, and randomly and include the following:

- Praise for Good Behavior (Daily)
- “Good Behavior” Privileges (Perk Days)(Weekly)
- Positive Notes/Phone Calls Home (Weekly)
- Class Music Time (Weekly)
- Homework Passes (Weekly)

## **Attendance/ Tardies**

Attending class everyday and being on time shows responsibility and respect. To emphasize the importance of being on time, the school has implemented a tardy lockout policy which will strictly be followed. Students are expected to be prepared and ready to start class when the bell rings.

\*Students that exceed ten unexcused absences in a semester will receive a failing grade and lose class credit.

### **Tardy Policy**

1. Students will be considered tardy for class if they are not present when the tardy bell rings.
2. Students who are tardy to class must go to the Dean’s office to obtain a tardy lockout slip. This slip must be shown to the teacher to be allowed back into class.
3. If a student shows up to class 30 minutes after the tardy bell has rung, he/she will be considered absent for the day.
4. Tardy actions will follow standard school-wide tardy policy.

### **Materials:**

These **MUST** be brought with you every day

Cougar Planner

3 Ring binder: Minimum 1 ½ inches with loose leaf paper for notes

3 hole punched folder to fit into binder

Pencil and pen

Colored Pencils

Calculator- **Cell phones will not be permitted to use for calculations!**

### **Grading Policy:**

Grades for each quarter will be calculated by adding the percentage of points available in each of the following areas:

Homework/Classwork	30%
Labs/Projects	30%
Tests/ Quizzes	40%
<b>Total</b>	<b>100%</b>

### **Semester Grades will be weighted as follows:**

Quarter grades = 45% x 2 = 80%

Semester exam = 10%

Total for Semester: 100%

### **Grading Scale**

90%-100% = A

80%-89.9% = B

70%-79.9% = C

60%-69.9% = D

Less than 60% will result in a failing grade

### **Citizenship Grading Scale:**

- “O” = Student has achieved a superior performance in the areas of self control, respect, attitude, cooperation, preparedness, and excellent attendance.
- “S” = Student has achieved average performance in the areas of self control, respect, attitude, cooperation, preparedness, and good attendance.
- “N” = Needs improvement.
- “U” = Student has achieved below average performance in the areas of self control, respect, attitude, cooperation, preparedness, and poor attendance.

### **Testing**

Tests may be in the format of a written test (e.g. multiple choice, true/false), essay exam, or performance based assessment (i.e., practical). A unit exam will be given at the closure of each unit. This will be approximately every 2-3 weeks. Quizzes will be given regularly. The quizzes are a quick way for the teacher to monitor your understanding of homework, labs, class work, and vocabulary.

### **Notebook**

It is extremely important that you keep an organized notebook. We will be using **interactive notebooks** in this class. This notebook will include all work produced throughout the year- class work (including lab reports), homework, vocabulary lists, and notes. A well-kept notebook will serve as a valuable reference tool when studying for exams and quizzes. Several notebook checks will be conducted on a random basis. If you fail to bring your notebook on a check day, you will not be allowed to leave class to go get it.

## **Homework/ Make-Up Work Policy**

- Homework assignments will vary. Examples of homework include: work that was not finished during class, studying for quizzes or tests, working on independent study projects, online quizzes, and message board postings. **All homework is due the following day unless noted otherwise.** Late homework will be accepted until the student tests for that unit/chapter for a reduction of 50% off the earned grade.
- Students who are absent on the day of a previously announced major quiz or test must be prepared to take the assessment immediately upon return from the absence. If this is impossible due to extenuating circumstances, the student needs to discuss the situation with Mrs. Wikler and other arrangements may be made.
- After an absence, you have 3 days to make contact and obtain appropriate make up work. You are expected to obtain the work the day that you return to school and complete the work in the same amount of time your classmates had.
- Prearranged work is due the day a student returns from a prearranged absence.

### **Scheduling/ Obtaining Make-Up Work**

- A monthly calendar listing all homework assignments can be found near the door of the room. Homework assignments will also be posted on the class website. Handouts that are not available online will be available in the student work area. **Notes missed must be hand copied into your own notebook.** It is the sole responsibility of the student to get all make-up assignments from the homework chart, from the internet, or from a friend. If you need any assistance obtaining make-up work, please see me *before or after school*.
- Missing laboratories: Lab work is a major part of this course. Do whatever you can to make it to class on lab days. If you miss a lab day it is your responsibility to come to me to arrange a make-up time. This must be done within 3 days from the day you are absent.

### **Student Assistance**

Any student who requires additional help with an assignment or needs to speak to me should see me before or after school. I am more than happy to help you. That is what I am here for ☺!

***Let's have a great year together!!!***

*Note: This course expectations packet is subject to change and adapt to circumstances as the school year progresses. If this occurs, the student will be issued revisions as necessary.*

**Course Expectations Signature Form: Mrs. Wikler**

**Students:** I have read and understand the course expectations packet for Mrs. Wikler’s Earth Science Class.

Name (print): \_\_\_\_\_ Grade: \_\_\_\_\_  
Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Parents/Guardians:** My child and I have gone over the classroom expectations packet and understand the rules, regulations, and procedures that are to be followed. We also understand the grading policy and classroom routines. We understand these items and support them.

Name (print): \_\_\_\_\_ Name (print): \_\_\_\_\_  
Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Please fill out the following information below. Thank you.

Home phone: \_\_\_\_\_  
Cell Phone (optional): \_\_\_\_\_  
Work phone: \_\_\_\_\_

**Videos:** Throughout the year, students may learn through the use of a video related to the topic they are currently studying. If you do not wish for your child to watch selected videos (National Geographic, NOVA, Discovery, etc.....) which are Not Rated, they will be provided with assignments during these occasions and sent elsewhere.

Please check one:

- My son/daughter may watch selected videos.
- My son/daughter may not watch selected videos.

Parent/Guardian Signature: \_\_\_\_\_ Date: \_\_\_\_\_

