

**OCEANOGRAPHY  
CURRICULUM MAP  
SAUGUS HIGH SCHOOL**

Week 1		Week 2	
<p align="center"><b>Performance Standards</b></p> <p><i>The students will:</i> N/A</p>		<p align="center"><b>Performance Standards</b></p> <p><i>The students will:</i> N/A</p>	
<p align="center"><b>Unit/Topic./Lesson</b></p> <p>Introduction to Oceanography What is Oceanography? How is it Important to Us All?</p>		<p align="center"><b>Unit/Topic./Lesson</b></p> <p>History of Oceanography</p>	
<p align="center"><b>Objectives (Students Will...)</b></p> <p><b>Learn</b> the significance of ocean sciences and the relationship between different research disciplines</p>	<p align="center"><b>Essential Question</b></p> <p>What all does the term “oceanography” entail?</p>	<p align="center"><b>Objectives (Students Will...)</b></p> <p><b>Learn</b> the origins and divergence of marine science. <b>Recognize</b> historic figures: Homer, Plato, Aristotle, Bowditch, Forbes, Darwin, Cousteau, etc.</p>	<p align="center"><b>Essential Question</b></p> <p>How did the study of the oceans become a science?</p>
<p align="center"><b>Teacher Resources</b></p> <ul style="list-style-type: none"> <li>Lecture notes</li> <li>Prepared hand outs</li> </ul>	<p align="center"><b>Media/Technology Resources</b></p> <ul style="list-style-type: none"> <li>Power Point Presentations</li> <li>Internet labs and resources</li> <li>Video media</li> </ul>	<p align="center"><b>Teacher Resources</b></p> <ul style="list-style-type: none"> <li>Lecture notes</li> <li>Prepared hand outs</li> </ul>	<p align="center"><b>Media/Technology Resources</b></p> <ul style="list-style-type: none"> <li>Power Point Presentations on notable individuals (oceanographers, biologists, explorers, and navigators).</li> <li>Internet labs and resources</li> <li>Video media</li> </ul>
<p align="center"><b>Assessment Activities</b></p> <p><b>Homework:</b> To be Given daily on each introduced topic. <b>Lab/ Lab Report:</b> <b>Quiz:</b> Given at the end of the week on all introduced topics and concepts.</p>	<p><b>Completion date:</b></p> <p><b>Completed by:</b></p> <p><b>Comments</b></p>	<p align="center"><b>Assessment Activities</b></p> <p><b>Homework:</b> To be Given daily on each introduced topic. <b>Lab/ Lab Report:</b> <b>Quiz:</b> History</p>	<p><b>Completion date:</b></p> <p><b>Completed by:</b></p> <p><b>Comments</b></p>

Week 3	
<b>Performance Standards</b>	
<i>The students will:</i> N/A	
<b>Unit/Topic./Lesson</b>	
History of Oceanography cont.	
<b>Objectives (Students Will...)</b>	<b>Essential Question</b>
<b>Learn</b> Notable events in Marine Science: Evolution, Azotic Theory, Challenger Expedition, USS Albatross, and HMS Beagle. The evolution of weapons into research tools (research vessels and submarines for instance).	By re-emphasis of the scientific method and the importance of collaborative research, can we begin to understand the importance of the oceans to mankind?
<b>Teacher Resources</b>	<b>Media/Technology Resources</b>
<ul style="list-style-type: none"> <li>Lecture notes</li> <li>Prepared hand outs</li> </ul>	<ul style="list-style-type: none"> <li>Power Point Presentations</li> <li>Internet labs and resources</li> <li>Teacher authored reading material</li> <li>Video media</li> </ul>
<b>Assessment Activities</b>	<b>Completion date:</b>
<b>Homework:</b> To be Given daily on each introduced topic. History Exam One page paper on individual	<b>Completed by:</b>  <b>Comments</b>

Week 4	
<b>Performance Standards</b>	
<i>The students will:</i> N/A	
<b>Unit/Topic./Lesson</b>	
Tools of the Trade Equipment and Craft Used by Oceanographers Simple Tools	
<b>Objectives (Students Will...)</b>	<b>Essential Question</b>
<b>Investigate</b> actual tools (Sextant, slurp gun, quadrant, cameras, refractometer, thermometers, Secchi disk, SCUBA gear, lead lines, etc.)	What are some of the critical, yet simple items and equipment used to gather data for oceanic research?
<b>Teacher Resources</b>	<b>Media/Technology Resources</b>
<ul style="list-style-type: none"> <li>Lecture notes</li> <li>Prepared hand outs</li> </ul>	<ul style="list-style-type: none"> <li>Power Point Presentations</li> <li>Internet labs and resources</li> <li>Teacher lead equipment demonstrations</li> <li>Teacher authored reading material</li> <li>Video media</li> </ul>
<b>Assessment Activities</b>	<b>Completion date:</b>
<b>Homework:</b> To be Given daily on each introduced topic. <b>Lab/ Lab Report:</b> <b>Quiz:</b> Equipment	<b>Completed by:</b>  <b>Comments</b>

Week 5		Week 6	
<b>Performance Standards</b>		<b>Performance Standards</b>	
<p><i>The students will:</i> N/A</p>		<p><b>Biology 6.4: Explain</b> how water, carbon, and nitrogen cycle between abiotic resources and organic matter in an ecosystem, and how oxygen cycles through photosynthesis and respiration</p> <p><b>Earth Science 3.8: Trace</b> the development of a lithospheric plate from its growth at a divergent boundary (mid-ocean ridge) to its destruction at a convergent boundary (subduction zone). <b>Recognize</b> that alternating magnetic polarity is recorded in rock at mid-ocean ridges.</p> <p><b>Earth Science 3.9: Explain</b> the relationship between convection currents in Earth's mantle and the motion of the lithospheric plates.</p> <p><b>Earth Science 3.10: Relate</b> earthquakes, volcanic activity, tsunamis, mountain building, and tectonic uplift to plate movements</p>	
<b>Unit/Topic./Lesson</b>		<b>Unit/Topic./Lesson</b>	
Tools of the Trade Equipment and craft used by oceanographers (Part Two: Complex Tools)		Geology and Geography of the oceans Oceans formation Ongoing Oceanic Change Why are The Oceans Salty?	
<b>Objectives (Students Will...)</b>	<b>Essential Question</b>	<b>Objectives (Students Will...)</b>	<b>Essential Question</b>
<b>Investigate</b> High Tech research: Ships, subs, ROV's, AUV's, HOV's, etc.	What equipment is pushing the edge of technology?	<b>Learn</b> the layout and global position of the oceans and seas of the world.	Where are the oceans and what do they really look like?
<b>Teacher Resources</b>	<b>Media/Technology Resources</b>	<b>Teacher Resources</b>	<b>Media/Technology Resources</b>
<ul style="list-style-type: none"> <li>Lecture notes</li> <li>Prepared hand outs</li> </ul>	<ul style="list-style-type: none"> <li>Power Point Presentations</li> <li>Internet labs and resources</li> <li>Teacher authored reading material</li> <li>Video media</li> </ul>	<ul style="list-style-type: none"> <li>Lecture notes</li> <li>Prepared hand outs</li> </ul>	<ul style="list-style-type: none"> <li>Power Point Presentations</li> <li>Internet labs and resources</li> <li>Teacher authored reading material</li> <li>Video media               <ul style="list-style-type: none"> <li>Planet Earth, Blue Planet</li> </ul> </li> </ul>
<b>Assessment Activities</b>	<b>Completion date:</b>	<b>Assessment Activities</b>	<b>Completion date:</b>
<p><b>Homework:</b> To be Given daily on each introduced topic.</p> <p><b>Lab/ Lab Report:</b></p> <p><b>TEST:</b> Equipment</p>	<p><b>Completed by:</b></p> <p><b>Comments</b></p>	<p><b>Homework:</b> To be Given daily on each introduced topic.</p> <p><b>Lab/ Lab Report:</b></p> <p><b>Quiz:</b> Oceans Quiz</p>	<p><b>Completed by:</b></p> <p><b>Comments</b></p>

Week 7	
<b><i>Performance Standards</i></b>	
<p><b>Earth Science 3.1: Explain</b> how physical and chemical weathering leads to erosion and the formation of soils and sediments, and creates various types of landscapes. <b>Give</b> examples that show the effects of physical and chemical weathering on the environment.</p> <p><b>Earth Science 3.8: Trace</b> the development of a lithospheric plate from its growth at a divergent boundary (mid-ocean ridge) to its destruction at a convergent boundary (subduction zone). <b>Recognize</b> that alternating magnetic polarity is recorded in rock at mid-ocean ridges.</p> <p><b>Earth Science 3.9: Explain</b> the relationship between convection currents in Earth's mantle and the motion of the lithospheric plates.</p> <p><b>Earth Science 3.10: Relate</b> earthquakes, volcanic activity, tsunamis, mountain building, and tectonic uplift to plate movements</p>	
<b>Unit/Topic./Lesson</b>	
Geology and Geography of the oceans Islands Mountains Continents Plate Techtonics Sea Floor Spreading.	
<b>Objectives (Students Will...)</b>	<b>Essential Question</b>
<b>Learn</b> how the Earth is in dynamic flux and that even mountains are recycled	What are the key features of the oceans topography?
<b>Teacher Resources</b>	<b>Media/Technology Resources</b>
<ul style="list-style-type: none"> <li>• Lecture notes</li> <li>• Prepared hand outs</li> </ul>	<ul style="list-style-type: none"> <li>• Power Point Presentations</li> <li>• Internet labs and resources</li> <li>• Teacher authored reading material</li> <li>• Video media               <ul style="list-style-type: none"> <li>– Planet Earth</li> <li>– NOVA</li> </ul> </li> </ul>
<b>Assessment Activities</b>	<b>Completion date:</b>
<p><b>Homework:</b> To be Given daily on each introduced topic.</p> <p><b>Lab/ Lab Report:</b></p> <p><b>Quiz:</b> Given at the end of the week on all introduced topics and concepts.</p>	<p><b>Completed by:</b></p> <p><b>Comments</b></p>

Week 8	
<b><i>Performance Standards</i></b>	
<p><b>Earth Science 3.8: Trace</b> the development of a lithospheric plate from its growth at a divergent boundary (mid-ocean ridge) to its destruction at a convergent boundary (subduction zone). <b>Recognize</b> that alternating magnetic polarity is recorded in rock at mid-ocean ridges.</p> <p><b>Earth Science 3.9: Explain</b> the relationship between convection currents in Earth's mantle and the motion of the lithospheric plates.</p> <p><b>Earth Science 3.10: Relate</b> earthquakes, volcanic activity, tsunamis, mountain building, and tectonic uplift to plate movements</p>	
<b>Unit/Topic./Lesson</b>	
Geology Geography of the oceans Ocean formation	
<b>Objectives (Students Will...)</b>	<b>Essential Question</b>
<b>Learn</b> the physical features of the ocean and how they are formed	How did the oceans form?
<b>Teacher Resources</b>	<b>Media/Technology Resources</b>
<ul style="list-style-type: none"> <li>• Lecture notes</li> <li>• Prepared hand outs</li> </ul>	<ul style="list-style-type: none"> <li>• Power Point Presentations</li> <li>• Internet labs and resources</li> <li>• Teacher authored reading material</li> <li>• Video media</li> </ul>
<b>Assessment Activities</b>	<b>Completion date:</b>
<p><b>Homework:</b> To be Given daily on each introduced topic.</p> <p><b>Lab/ Lab Report:</b></p> <p><b>Quiz:</b> Given at the end of the week on all introduced topics and concepts.</p>	<p><b>Completed by:</b></p> <p><b>Comments</b></p>

Week 9	
<b>Performance Standards</b>	
<p><b>Biology 6.1: Explain</b> how birth, death, immigration, and emigration influence population size.</p> <p><b>Biology 6.2: Analyze</b> changes in population size and biodiversity (speciation and extinction) that result from the following: natural causes, changes in climate, human activity, and the introduction of invasive, non-native species.</p> <p><b>Biology 6.3: Use</b> a food web to <b>identify</b> and distinguish producers, consumers, and decomposers, and <b>explain</b> the transfer of energy through trophic levels. <b>Describe</b> how relationships among organisms (predation, parasitism, competition, commensalism, and mutualism) add to the complexity of biological communities.</p>	
<b>Unit/Topic./Lesson</b>	
Ocean Ecology Ecosystems and environments	
<b>Objectives (Students Will...)</b>	<b>Essential Question</b>
<b>Investigate</b> how different organisms live together in different environments	What is an ecosystem, and how is this different from an environment?
<b>Teacher Resources</b>	<b>Media/Technology Resources</b>
<ul style="list-style-type: none"> <li>• Lecture notes</li> <li>• Prepared hand outs</li> </ul>	<ul style="list-style-type: none"> <li>• Power Point Presentations</li> <li>• Internet labs and resources</li> <li>• Teacher authored reading material</li> <li>• Video media               <ul style="list-style-type: none"> <li>– Shark Mountain</li> <li>– Shark Water</li> <li>– Author’s videos</li> </ul> </li> </ul>
<b>Assessment Activities</b>	<b>Completion date:</b>
<p><b>Homework:</b> To be Given daily on each introduced topic.</p> <p><b>Lab/ Lab Report:</b></p> <p><b>Quiz:</b> Ecosystems Current events presentation.</p>	<p><b>Completed by:</b></p> <p><b>Comments</b></p>

Week 10	
<b>Performance Standards</b>	
<p><b>Biology 6.1: Explain</b> how birth, death, immigration, and emigration influence population size.</p> <p><b>Biology 6.2: Analyze</b> changes in population size and biodiversity (speciation and extinction) that result from the following: natural causes, changes in climate, human activity, and the introduction of invasive, non-native species.</p> <p><b>Biology 6.3: Use</b> a food web to <b>identify</b> and distinguish producers, consumers, and decomposers, and <b>explain</b> the transfer of energy through trophic levels. <b>Describe</b> how relationships among organisms (predation, parasitism, competition, commensalism, and mutualism) add to the complexity of biological communities.</p>	
<b>Unit/Topic./Lesson</b>	
Ocean Ecology Adaptations to different environments	
<b>Objectives (Students Will...)</b>	<b>Essential Question</b>
<p><b>Learn</b> about the different models of evolution as presented by Darwin and Lamarck</p> <p><b>Learn</b> about adaptation and biodiversity</p>	How do organisms adapt to live in varied environments?
<b>Teacher Resources</b>	<b>Media/Technology Resources</b>
<ul style="list-style-type: none"> <li>• Lecture notes</li> <li>• Prepared hand outs</li> </ul>	<ul style="list-style-type: none"> <li>• Power Point Presentations</li> <li>• Internet labs and resources</li> <li>• Teacher authored reading material</li> <li>• Video media</li> </ul>
<b>Assessment Activities</b>	<b>Completion date:</b>
<p><b>Homework:</b> To be Given daily on each introduced topic.</p> <p><b>Lab/ Lab Report:</b></p> <p><b>Test:</b> Ecosystems</p>	<p><b>Completed by:</b></p> <p><b>Comments</b></p>

Week 11	
<b>Performance Standards</b>	
<p><b>Earth Science 3.1: Explain</b> how physical and chemical weathering leads to erosion and the formation of soils and sediments, and creates various types of landscapes. <b>Give</b> examples that show the effects of physical and chemical weathering on the environment.</p> <p><b>Earth Science 3.2: Describe</b> the carbon cycle.</p> <p><b>Earth Science 3.3: Describe</b> the nitrogen cycle.</p>	
<b>Unit/Topic./Lesson</b>	
Ocean Issues Pollution Global Warming Ozone Depletion and Oceanic Effects	
<b>Objectives (Students Will...)</b>	<b>Essential Question</b>
<p><b>Learn</b> about disruptions in the oceans ecosystems due to human interference</p> <p><b>Explore</b> global climate change</p>	What is pollution?
<b>Teacher Resources</b>	<b>Media/Technology Resources</b>
<ul style="list-style-type: none"> <li>Lecture notes</li> <li>Prepared hand outs</li> </ul>	<ul style="list-style-type: none"> <li>Power Point Presentations</li> <li>Internet labs and resources</li> <li>Teacher authored reading material</li> <li>Video media</li> </ul>
<b>Assessment Activities</b>	<b>Completion date:</b>
<p><b>Homework:</b> To be Given daily on each introduced topic.</p> <p><b>Lab/ Lab Report:</b></p> <p><b>Quiz:</b> Ocean Issues</p>	<p><b>Completed by:</b></p> <p><b>Comments</b></p>

Week 12	
<b>Performance Standards</b>	
<p><b>Biology 6.4: Explain</b> how water, carbon, and nitrogen cycle between abiotic resources and organic matter in an ecosystem, and how oxygen cycles through photosynthesis and respiration.</p> <p><b>Earth Science 1.6: Describe</b> the various conditions associated with frontal boundaries and cyclonic storms (e.g., thunderstorms, winter storms [nor'easters], hurricanes, tornadoes) and their impact on human affairs, including storm preparations.</p> <p><b>Earth Science 1.7: Explain</b> the dynamics of oceanic currents, including upwelling, deep-water currents, the Labrador Current and the Gulf Stream, and their relationship to global circulation within the marine environment and climate.</p> <p><b>Earth Science 3.5: Describe</b> the processes of the hydrologic cycle, including evaporation, condensation, precipitation, surface runoff and groundwater percolation, infiltration, and transpiration.</p>	
<b>Unit/Topic./Lesson</b>	
Weather How the oceans control the world's weather. Weather. Trade winds Doldrums (the Dead Horse Latitudes and why we call it that) Hurricanes and Typhoons Storms and Squalls, The Water Cycle, How the Oceans Create All Weather on Earth.	
<b>Objectives (Students Will...)</b>	<b>Essential Question</b>
<p><b>Learn</b> that the world's oceans create the world's weather</p>	How do weather systems form, and what has this got to do with the oceans?
<b>Teacher Resources</b>	<b>Media/Technology Resources</b>
<ul style="list-style-type: none"> <li>Lecture notes</li> <li>Prepared hand outs</li> </ul>	<ul style="list-style-type: none"> <li>Power Point Presentations               <ul style="list-style-type: none"> <li><i>Hurricane Katrina</i></li> </ul> </li> <li>Internet labs and resources</li> <li>Teacher authored reading material</li> <li>Video media               <ul style="list-style-type: none"> <li><i>Perfect Storm</i></li> </ul> </li> </ul>
<b>Assessment Activities</b>	<b>Completion date:</b>
<p><b>Homework:</b> To be Given daily on each introduced topic.</p> <p><b>Lab/ Lab Report:</b></p> <p><b>Quiz:</b> Weather</p>	<p><b>Completed by:</b></p> <p><b>Comments</b></p>

Week 13	
<b><i>Performance Standards</i></b>	
<b>Biology 6.2: Analyze</b> changes in population size and biodiversity (speciation and extinction) that result from the following: natural causes, changes in climate, human activity, and the introduction of invasive, non-native species.	
<b>Unit/Topic./Lesson</b>	
Fisheries Science. Fisheries Management and Sustainability of Fish Stocks. Aquaculture.	
<b>Objectives (Students Will...)</b>	<b>Essential Question</b>
<b>Learn</b> about the biological, economic and political aspects of sustainable fisheries	What are the traditional ways that man fishes the oceans?
<b>Teacher Resources</b>	<b>Media/Technology Resources</b>
<ul style="list-style-type: none"> <li>• Lecture notes</li> <li>• Prepared hand outs</li> </ul>	<ul style="list-style-type: none"> <li>• Power Point Presentations</li> <li>• Internet labs and resources</li> <li>• Teacher authored reading material</li> <li>• Video media</li> </ul>
<b>Assessment Activities</b>	<b>Completion date:</b>
<b>Homework:</b> To be Given daily on each introduced topic. <b>Lab/ Lab Report:</b> <b>Quiz:</b> Fisheries. <b>Paper:</b> Fisheries Issue. <b>Exam:</b> Weather and fisheries	<b>Completed by:</b>  <b>Comments</b>

Week 14	
<b><i>Performance Standards</i></b>	
<b>Biology 6.3: Use</b> a food web to identify and distinguish producers, consumers, and decomposers, and explain the transfer of energy through trophic levels. <b>Describe</b> how relationships among organisms (predation, parasitism, competition, commensalism, and mutualism) add to the complexity of biological communities.	
<b>Unit/Topic./Lesson</b>	
Marine biology of the Photic Zone Phytoplankton and Oxygen Production Carbon Sinks Protists (seaweeds) Coral Reefs and Symbiosis Nutrient Loading and Red Tides Schooling Fishes Predators.	
<b>Objectives (Students Will...)</b>	<b>Essential Question</b>
<b>Describe</b> the characteristics of the photic zone <b>Explain</b> adaptations that enable organisms to survive in photic zone	Is photosynthesis in the oceans important to us?
<b>Teacher Resources</b>	<b>Media/Technology Resources</b>
<ul style="list-style-type: none"> <li>• Lecture notes</li> <li>• Prepared hand outs</li> </ul>	<ul style="list-style-type: none"> <li>• Power Point Presentations</li> <li>• Internet labs and resources</li> <li>• Teacher authored reading material</li> <li>• Video media</li> </ul>
<b>Assessment Activities</b>	<b>Completion date:</b>
<b>Homework:</b> To be Given daily on each introduced topic. <b>Lab/ Lab Report:</b> <b>Quiz:</b> Given at the end of the week on all introduced topics and concepts.	<b>Completed by:</b>  <b>Comments</b>

Week 15	
<b><i>Performance Standards</i></b>	
<b>Biology 6.3:</b> Use a food web to identify and distinguish producers, consumers, and decomposers, and explain the transfer of energy through trophic levels. <b>Describe</b> how relationships among organisms (predation, parasitism, competition, commensalism, and mutualism) add to the complexity of biological communities.	
<b>Unit/Topic./Lesson</b>	
Marine Biology of the Twilight Zone. Mid-water ecosystems and Animal Populations.	
<b>Objectives (Students Will...)</b>	<b>Essential Question</b>
<b>Identify</b> the characteristics of the twilight zone <b>Describe</b> the organisms that inhabit twilight zone <b>Illustrate</b> the complexity and diversity of the twilight zone	How does life exist in a world of perpetual gloom?
<b>Teacher Resources</b>	<b>Media/Technology Resources</b>
<ul style="list-style-type: none"> <li>Lecture notes</li> <li>Prepared hand outs</li> </ul>	<ul style="list-style-type: none"> <li>Power Point Presentations</li> <li>Internet labs and resources</li> <li>Teacher authored reading material</li> <li>Video media</li> </ul>
<b>Assessment Activities</b>	<b>Completion date:</b>
<b>Homework:</b> To be Given daily on each introduced topic. <b>Lab/ Lab Report:</b> <b>Quiz:</b> Given at the end of the week on all introduced topics and concepts.	<b>Completed by:</b>  <b>Comments</b>

Week 16	
<b><i>Performance Standards</i></b>	
<b>Biology 6.3:</b> Use a food web to identify and distinguish producers, consumers, and decomposers, and explain the transfer of energy through trophic levels. <b>Describe</b> how relationships among organisms (predation, parasitism, competition, commensalism, and mutualism) add to the complexity of biological communities.	
<b>Unit/Topic./Lesson</b>	
Marine Biology of the Abyssal Zone Marine Snow (Detritus) Nutrient Recycling Life Forms Conditions for Life to Exist Whale Falls Hot Water Vents	
<b>Objectives (Students Will...)</b>	<b>Essential Question</b>
<b>Identify</b> the characteristics of the abyssal zone <b>Describe</b> the organisms that inhabit abyssal zone <b>Illustrate</b> the complexity and diversity of the abyssal zone <b>Understand</b> that life can exist with no light in extreme conditions	What is the “bottom” of the sea really like?
<b>Teacher Resources</b>	<b>Media/Technology Resources</b>
<ul style="list-style-type: none"> <li>Lecture notes</li> <li>Prepared hand outs</li> </ul>	<ul style="list-style-type: none"> <li>Power Point Presentations</li> <li>Internet labs and resources</li> <li>Teacher authored reading material</li> <li>Video media</li> </ul>
<b>Assessment Activities</b>	<b>Completion date:</b>
<b>Homework:</b> To be Given daily on each introduced topic. <b>Lab/ Lab Report:</b> <b>Quiz:</b> Given at the end of the week on all introduced topics and concepts. <b>Exam:</b> Marine Life.	<b>Completed by:</b>  <b>Comments</b>

Week 17	
<b>Performance Standards</b>	
<i>The students will:</i> N/A	
<b>Unit/Topic./Lesson</b>	
Ocean environments Arctic (boreal) Conditions and Ecosystems. Temperate (sub-boreal) Tropical and Sub-tropical Regions	
<b>Objectives (Students Will...)</b>	<b>Essential Question</b>
<b>Identify</b> the characteristics of the arctic, temperate, and tropical ocean environments <b>Describe</b> the organisms that inhabit the arctic, temperate, and tropical ocean environments <b>Illustrate</b> the complexity and diversity of the arctic, temperate, and tropical ocean environments	How does ocean life vary in the arctic, temperate, and tropical ocean environments?
<b>Teacher Resources</b>	<b>Media/Technology Resources</b>
<ul style="list-style-type: none"> <li>Lecture notes</li> <li>Prepared hand outs</li> </ul>	<ul style="list-style-type: none"> <li>Power Point Presentations</li> <li>Internet labs and resources</li> <li>Teacher authored reading material</li> <li>Video media</li> </ul>
<b>Assessment Activities</b>	<b>Completion date:</b>
<b>Homework:</b> To be Given daily on each introduced topic. <b>Lab/ Lab Report:</b> <b>Quiz:</b> Given at the end of the week on all introduced topics and concepts	<b>Completed by:</b> <b>Comments</b>

Week 18	
<b>Performance Standards</b>	
<i>The students will:</i> N/A	
<b>Unit/Topic./Lesson</b>	
Ocean environments Antarctic. Ice sheets Conditions for Life to Exist Fish with Anti-freeze Blood. Penguins.	
<b>Objectives (Students Will...)</b>	<b>Essential Question</b>
<b>Identify</b> the characteristics of the Antarctic ocean environments <b>Describe</b> the organisms that inhabit the Antarctic ocean environments <b>Illustrate</b> the complexity and diversity of the Antarctic ocean environments	How does ocean life vary in the Antarctic ocean environments?
<b>Teacher Resources</b>	<b>Media/Technology Resources</b>
<ul style="list-style-type: none"> <li>Lecture notes</li> <li>Prepared hand outs</li> </ul>	<ul style="list-style-type: none"> <li>Power Point Presentations</li> <li>Internet labs and resources</li> <li>Teacher authored reading material</li> <li>Video media</li> </ul>
<b>Assessment Activities</b>	<b>Completion date:</b>
<b>Homework:</b> To be Given daily on each introduced topic. <b>Lab/ Lab Report:</b> <b>Quiz:</b> Given at the end of the week on all introduced topics and concepts. <b>Exam:</b> Environments	<b>Completed by:</b> <b>Comments</b>