

|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Estuaries and the Chesapeake</p> | <ul style="list-style-type: none"> <li>• Estuaries are where rivers meet the sea.</li> <li>• In the Chesapeake bay plants have adapted to photosynthesize underwater.</li> <li>• Scientists use plankton to help monitor water quality.</li> <li>• The Chesapeake bay is home to over 3600 species and is a spawning ground and nursery for many of them.</li> <li>• Human activities have had a negative impact on estuaries and had to be limited.</li> <li>• Coastal wetlands are called mangrove swamps and are around Florida and Hawaii and are home to many salt tolerate plants.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p>Marine Ecosystems</p>            | <ul style="list-style-type: none"> <li>• There are ecosystems underwater called marine ecosystems</li> <li>• These are either photic or aphotic meaning the either get light or they don't.</li> <li>• They are also divided into zones based on depth.</li> <li>• The intertidal zone is exposed to a very changing water conditioned zone during part of the day and at other times it is exposed to the air.</li> <li>• In the coastal ocean the ecosystem is completely submerged 100% of the time, and they are still shallow enough to get light and be able to photosynthesize. One of the most productive communities here are kelp forests.</li> <li>• Coral reefs are in warm shallow water in tropical regions and composed of the calcium coral structures.</li> <li>• The open ocean is nearly completely dark and ranges from 500-11,000 feet deep, this ecosystem has low productivity because of the wide expanse and low amounts of light.</li> <li>• The Benthic zone is entirely dark and compromised of organisms that do not move very much feeding mainly on nutrients that float down. There are chemosynthetic plants that produce food with no light.</li> </ul> |