

Review for Marine Science Final Exam (Garrison Chapters 12-18)

- Review coasts: depositional and erosional and features found at each**
- Review the requirements for life; and evolution**
- Review food webs**
- Review biogeochemical cycles**
- Review the differences between heterotrophs and autotrophs; different levels of consumers**
- Review the lifestyles (plankton, nekton, neuston, benthic) and zones of the ocean including pelagic, benthic, abyssal, neritic and intertidal**
- Review the plankton including zooplankton, phytoplankton, meroplankton, holoplankton**
- Review the neuston, and the differences between pelagic and benthic animals**
- Review food pyramids and energy flow through living systems**

- Review the Linnaeus classification system (including why scientists classify organisms and the Six kingdom system and the Three-domain system).**
- Compare prokaryotic and eukaryotic cells**
- Define algae, review the algae phyla and why kelp is important and where it is found**
- Review the difference between submergent and emergent plants and examples of each**
- Review benefits of plants to various marine ecosystems**
- Review the invertebrate phyla Cnidaria, Mollusca (gastropods and cephalopods), Arthropoda, Echinodermata – what animals are in each of these phyla?**
- Review the crustacea including krill, copepods, decapods**
- Review the phylum Chordata including the classes Chondrichthyes and Osteichthyes; mammals pinnipeds and cetaceans**

- Review the terms ecosystem (abiotic and biotic factors), habitat, population, community and niche**

- Review the Earth's natural resources**
- Compare renewable and non-renewable resources found in or below the oceans**
- Compare biological and physical resources**
- Review the International Whaling Commission (IWC) moratorium and exemptions**
- Review the trend in aquaculture**
- Review Maximum Sustainable Yield (MSY) and over fishing**

- Review the greenhouse effect, greenhouse gasses and the theory of global warming (including cause and effect, human influences, ocean influences)**
- Review habitat destruction of estuaries and coral reefs**
- Review how non-native species affect ecosystems and how they are transferred (introduced)**
- Review sources and types of pollution**
- Review heavy metals such as lead, mercury, cadmium and how they affect organisms**
- Review causes and effects of eutrophication**