

Study Topics for Exam 3: The Final

Chapter 13: Life In the Ocean

- 1) Trophic Relationships and the Trophic Pyramid
- 2) Biogeochemical Cycles
 - a) Carbon Cycle
 - b) Nitrogen Cycle
 - c) Phosphorus Cycle
 - d) Silicon Cycle
- 3) Physical and Biological Factors that Affect Critters

Chapter 14: Plankton, Algae and Plants

- 1) Diatoms
- 2) Dinoflagellates
- 3) Coccolithophores
- 4) Silicoflagellates
- 5) Picoplankton
- 6) Primary Productivity and its Distribution
- 7) Zooplankton
 - a) Krill
 - b) Jellies
 - c) Forams

Chapter 15: Marine Animals

- 1) Phylum Porifera
- 2) Phylum Cnidaria
- 3) Worm Phyla
 - a) Annelida (including the class Polychaeta)
 - b) Nematoda
 - c) Platyhelminthes
- 4) Phylum Mollusca
 - a) Gastropoda
 - b) Bivalvia
 - c) Cephalopoda
- 5) Phylum Arthropoda
 - a) Why are they so special?
 - b) Crustacea
- 6) Phylum Echinodermata
- 7) Phylum Chordata
 - a) Invertebrate Chordates
 - b) Vertebrate Chordates
 - 1) Fish
 - a) Class Agnatha
 - b) Class Chondrichthyes
 - c) Class Osteichthyes
 - d) How they cope with their environment
 - 2) Amphibians
 - 3) Marine Reptiles
 - 4) Marine Birds
 - 5) Marine Mammals

Chapter 15, Marine Animals (continued)

5) Marine Mammals

a) Order Cetacea

1) Odontoceti

2) Mysticeti

b) Order Carnivora

1) Pinnipedia

2) Fissipedia

c) Sirenia

Chapter 16: Marine Communities

1) Distribution of Critters

2) Controlling Factors of Change in Marine Communities

3) Marine Communities

a) Rocky Intertidal

b) Seaweed

c) Beach

d) Salt Marshes/Estuaries

e) Coral Reefs

f) Open Ocean

g) Deep Seafloor

h) Deep Rock Communities

i) Hydrothermal Vent and Cold Seep Communities

j) Whale Fall

Chapter 17: Marine Resources

1) Physical Resources

a) Hydrocarbons

b) Sand and Gravel

c) Magnesium

d) Salts

e) Manganese, Phosphate

f) Metallic Sulfides and Muds

g) Freshwater

2) Marine Energy

a) Wind

b) Waves and Currents

c) Thermal Gradient

3) Biological Resources

4) Nonextractive Resources

Chapter 18: Environmental Concerns

1) Marine Pollution

2) Habitat Destruction

3) Marine Sanctuaries

4) Global Changes

I will ask you seven or eight essay questions from this list of topics. You will be only required to answer five of those questions. There will also be a bonus question. The essay section of the test is worth 50 points. The multiple choice part of the exam is also worth 50 points.