Marine Mammal Study Guide

Exam Covers:
• Chapter 8 Study Guide part 2
• Videos:
  - Manatee Die Off
  - Secrets of the Humpback Whales
  - In the Company of Whales
• Lab:
  - Why Whales don't have Legs
  - Animal Hands
• Lecture:
  - Evolutionary Taxonomy of Animal Phyla
  - Evolutionary Taxonomy of Chordates
  - Whale Evolution

Vocabulary:

<table>
<thead>
<tr>
<th>Term</th>
<th>Term</th>
<th>Term</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Echolocation</td>
<td>Hydrophone</td>
<td>Big Bang</td>
<td>Bubble net</td>
</tr>
<tr>
<td>Cetacea</td>
<td>baleen</td>
<td>krill</td>
<td>self aware</td>
</tr>
<tr>
<td>Necropsy</td>
<td>the &quot;bends&quot;</td>
<td>Ambulocetus</td>
<td>Basilosaurus</td>
</tr>
<tr>
<td>viviparous</td>
<td>Packacetus</td>
<td>endothermic</td>
<td>sirenia</td>
</tr>
<tr>
<td>Pinnipedia</td>
<td>Blowhole</td>
<td>fluke</td>
<td>brevitoxin</td>
</tr>
<tr>
<td>hemoglobin</td>
<td>Migration</td>
<td>radiotransmitter</td>
<td>Breaching</td>
</tr>
<tr>
<td>&quot;set&quot; on dolphins</td>
<td>escort whale</td>
<td>rebreather</td>
<td>Embryology</td>
</tr>
<tr>
<td>evolution</td>
<td>melon</td>
<td>bioaccumulation</td>
<td>spectrograph</td>
</tr>
<tr>
<td>altruistic male cooperation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>comparative anatomy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

How/ Where/ When/ Why... etc:
• When would you want to use a "rebreather"

• Where would you go to study Humpback whales in the summer? ... In winter?
Name 3 ways that you can tell humpback whales apart.

You are snorkeling along when a whale comes alongside you blowing bubbles—what are they doing?

Describe “bubble netting” who/where/function and the advantage to each individual.

Where would you find a marine mammal “disarticulate” their lower jaw... function?

Describe how you would use photo ID and spectrograph data in studying whales.

Why don’t whales have legs? Why were legs selected against in evolution?

List/Describe two adaptations that function in keeping whales warm in cold water.

How would you explain the behavior of an “escort” whale?

Summarize the major events of whale evolution.

List 3 adaptations some marine mammals have for deep diving.

What are the “bends”? How would you avoid them after a deep dive?

Summarize how a dolphin uses echolocation to find a fish.

Describe how you would do an experiment to test whether dolphins are “self aware.”

Name 2 major kinds of cetaceans and list 3 characteristics of each.

Describe your strategy if you were in charge of finding a cause of Manatee die off.