Oceanography Study Guide

Below is a list of terms and concepts that we learned throughout the oceanography unit. Look through your notes, worksheets, labs, directed readings, journal entries, and book to review for this test.

Please Note: Terms and concepts are organized by Chapter and Section. However, not all terms/concepts are mentioned in book and must be found using worksheets or labs we have completed.

The test will be on: __________________________

Chapter 2, Section 1

- What compound is the most abundant salt in ocean?
- Amount of Earth covered by water
- Four oceans: What are they? Largest? Smallest? Locations of each?
- What is salinity? How is it expressed (what units)?
- How is salinity increased in the ocean? How is it decreased?
- What influences density of water?
- What is the ocean’s most important function? EXPLAIN!

Chapter 2, Section 2

- How do scientists study the ocean floor?
- Major regions of the ocean floor (Continental margin and deep-ocean basin)
  - Where are these regions located, can you describe them
    - Continental shelf
    - Continental slope
    - Continental rise
    - Abyssal plain
    - Ocean trench
    - Seamount
  - Passive margin versus an active Margin (how they differ; what determines whether or not a margin is active or passive)

Chapter 2, Section 3

- Different types of ocean organisms: Benthos, Plankton, Nekton
- Different Life Zones: Intertidal Zone, Neritic Zone, Pelagic Zone

Chapter 3, Section 1

- Ocean temperature layers: Surface mixed zone, Thermocline, Deep Zone
- Surface currents: What controls how they move?
- Ocean Gyres
  - Name the five main gyres.
  - How do they move depending on the hemisphere?
Chapter 3, Section 1 (continued)

- Global Winds
  - Direction of wind flow
  - How does the winds interact with the ocean?
- Coriolis Effect: What is it? What does it do?
- Deep Ocean Currents (also known as density currents)
  - What causes density currents to form?

Chapter 3, Section 2

- Surface Currents and Climate
  - How do surface currents affect the climates of different areas?
- Upwelling
  - How is upwelling initiated? What occurs as a result? Why is upwelling important?
  - How does upwelling affect living organisms of the ocean?
- El Niño
  - What causes El Niño, and what are its effects?
  - Why is it important for scientists to learn about El Niño?

Chapter 3, Section 3

- Parts of a wave
- Why do waves change as they approach the shore and how?
- What are waves on the surface of the earth caused by?
- What is a tsunami? What causes a tsunami to occur? How are tsunamis different from wind-driven waves?

Chapter 3, Section 4

- Tides
- Spring tides vs. neap tides
- Tidal range
- What causes the tides?
- Effects of gravity
- Tidal bulges
- How often do tides change?

Extra textbook review questions:

- p. 72 – 73: #1, 3, 4, 7 – 9, 14 – 16
- p. 75: Interpreting graphics #1 – 5
- p. 102: #1 – 6, 8 – 13, 15, 16, 22, 23
- p. 105: Interpreting graphics #1 – 3