**Oceanography Worksheet**

(Adapted from the BSA Oceanography merit badge)

Name four different kinds of scientists who study water, and give a brief definition of what they study.

1.

2.

3.

4.

Describe three reasons why it is important for us to learn more about the oceans.

1.

2.

3.

Define salinity, temperature, and density, and say why these are important properties of seawater.

Salinity:

Temperature:

Density:

Describe three ways oceanographers measure important properties of seawater.

1.

2.

3.

What/When was the first oceanographic expedition?

Who is considered the Father of Oceanography, and why?

Describe three physical features of the globe that affect oceans, and how they do so.

1.

2.

3.

Explain how the sun and moon affect oceans.

Discuss the circulation and currents of the ocean.

Discuss the movement and spreading of the sea floor.

Describe some of the effects of oceans on weather and climate.

Describe some of the characteristics of different ocean waves.

Explain how a tsunami occurs.

Draw a cross-section of underwater topography. Include: seamount, guyot, oceanic ridge, trench, island arcs, continental shelf, continental slope, and abyssal plain.

List the main salts, gasses, and nutrients in seawater.

Salts:

Gasses:

Nutrients:

Describe two or three ways that animals and plants of the ocean can affect the chemical composition of water.

Describe two or three ways that the chemical composition of the water affects animal and plant life. (Hint: consider algae and plankton, and organisms which utilize carbon).

Explain how differences in evaporation and precipitation affect the salt content of oceans.

Draw a diagram of an atoll, fringing reef, and barrier reef.

Draw a diagram of the five zones of the ocean, and briefly describe the characteristics of each.

Explain the mathematical phenomenon of a wave, and some of the key properties in measuring waves.

Describe several ways that the underlying geology of the ocean can affect it.

Describe two convergent and once divergent tectonic feature of the ocean.

1.

2.

3.

Briefly explain what the Marianas Trench is and how oceanographers believe it formed.

Describe what a hydrothermal vent is, and why it is important to ocean science.

Describe four different kinds of submersibles, and give a real life example of each.

1.

2.

3.

4.