Life Sciences 11 Phylum Porifera Name:

**Purpose:** to compare and contrast sponge structure

**Materials:** Sponge specimens and hand lenses

Microscope and spicule slide

**Method:**

1. Make a drawing of one of the sponge specimens set up around the room. Label as many structures as you can – be sure to label ONLY what you can actually see!
2. View the slide of sponge spicules and make a drawing

**Observations:**

Sponge Specimen Slide

**Analysis:**

1. Describe how water moves through a sponge.
2. What important roles does water play in the survival of a sponge?
3. How do sponges reproduce?
4. What material(s) gives a sponge its support and structure?

1. Match the terms on the left with the definitions below.

\_\_\_\_ osculum a. water moves into the central cavity through these small openings

\_\_\_\_ spicules b. spike-shaped structures that make up a simple skeleton

\_\_\_\_ pores c. large opening at the top of the sponge where water exits

\_\_\_\_ choanocyte (collar cell) d. specialized cells that move around within the walls of the sponge, making spicules and digesting and transporting food.

\_\_\_\_ amoebocyte (archaeocyte) e. cells that use flagella to move water through the sponge to trap food.

1. Describe and draw how a sponge feeds.
2. What triggers a sponge to produce gemmules?
3. Draw a sponge and label all the structures.