



Name \_\_\_\_\_ Date \_\_\_\_\_

### Concept Covered: Sponge Body Plan 3

Define or describe each of the structures below.

1. Ostia: \_\_\_\_\_  
\_\_\_\_\_
2. Bud: \_\_\_\_\_  
\_\_\_\_\_
3. Osculum: \_\_\_\_\_  
\_\_\_\_\_
4. Spicules: \_\_\_\_\_  
\_\_\_\_\_
5. Central cavity: \_\_\_\_\_  
\_\_\_\_\_
6. Collar cells or choanocytes: \_\_\_\_\_  
\_\_\_\_\_
7. Epidermal cells: \_\_\_\_\_  
\_\_\_\_\_
8. Amebocytes or archaeocytes: \_\_\_\_\_  
\_\_\_\_\_
9. Mesoglea: \_\_\_\_\_  
\_\_\_\_\_
10. Spongin: \_\_\_\_\_  
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## Teacher Answer Key

1. Ostia: Incurrent pores. Water enters the sponge through pores called ostia.
2. Bud: A form of asexual reproduction in sponges. A small organism or bud grows while still attached to the parent. It will break off eventually and live independently.
3. Osculum: The excurrent pore. Water exits the sponge through the osculum.
4. Spicules: Skeletal structures that help support the body of the sponge. They are tiny, hard particles that are shaped like spikes.
5. Central Cavity: The hollow center of the animal. It is closed at the bottom and open at the top. The interior is lined with collar cells or choanocytes.
6. Collar cells or choanocytes: These cells contain beating flagella that draw water into the sponge.
7. Epidermal cells: The layer of cells forming the outer body covering.
8. Amebocytes or archaeocytes: Cells that migrate through the mesoglea. They carry digested food and oxygen to the cells of the body. They also remove carbon dioxide and wastes.
9. Mesoglea: Sponges only have two germ layers. They do not have a mesoderm germ layer. Mesoglea is the jelly like material found between cell layers.
10. Spongin: A simple skeleton made of a network of protein fibers.