



CONNECT | ENRICH | TRANSFORM

## Wonderfully Weird World of Sponges

### **Vocabulary List**

*These terms will help you understand the weird world of sponges. Read through this list before doing the activities on the following pages.*

**Bioerosion** – process by which organisms remove hard substrates (examples drilling, burrowing, grazing)

**Choanocyte chamber (or simply choanocyte)** – chambers consisting of choanocyte cells (made up of flagellum and collar) which generate a flow of water through the sponge, choanocytes also act as part of the filter feeding system

**Filter feeding** – process of removing food from the surrounding water

**Flagellum** – long, thin structures that can be used for cell mobility or to create a current

**Microbe/microbial** – living organisms too small to be seen with the naked eye

**Osculum** – larger opening in a sponge through which water is pumped out of the body

**Ostia** – pores on a sponge that allow water to enter the body

**Porifera** – phylum classification for sponges which are multicellular organisms with a porous structure that filter food from the water

**Sessile** – immobile, fixed in one place

**Spicule** – hard structures found in sponges (Poriferans) that provide support to surrounding tissue, composed of calcium or silica

**Symbiont** – member of a symbiotic relationship

**Symbiosis** – close relationship between organisms.

**Mutualism** - a relationship where both organisms benefit from the relationship

**Parasitism** – a relationship when one organism benefits while the other is harmed

**Commensalism** – a relationship when one organism benefits while the other is unaffected

# Wonderfully Weird World of Sponges

## Sponge Hunt

Can you find all the photos of sponges below? Circle all the sponges you can find.

If you are doing this activity on a computer use the highlighter tool above to make your circles.

	A	B	C	D	E	F
1						
2						
3						
4						
5						
6						

## Wonderfully Weird World of Sponges

### **Complete the Sentences**

Use your vocabulary list to complete the following sentences.

Sponges belong to the group of animals in the phylum \_\_\_\_\_.

Sponges have hard structures to support their bodies called \_\_\_\_\_ which are composed of calcium or silica.

Sponges have \_\_\_\_\_ which are pores that allow water to enter their bodies.

Sponges remove food from the water around them by \_\_\_\_\_.

After water is filtered it exits the body through a wide opening called a \_\_\_\_\_.

Sponges do not move from place to place because they are \_\_\_\_\_.

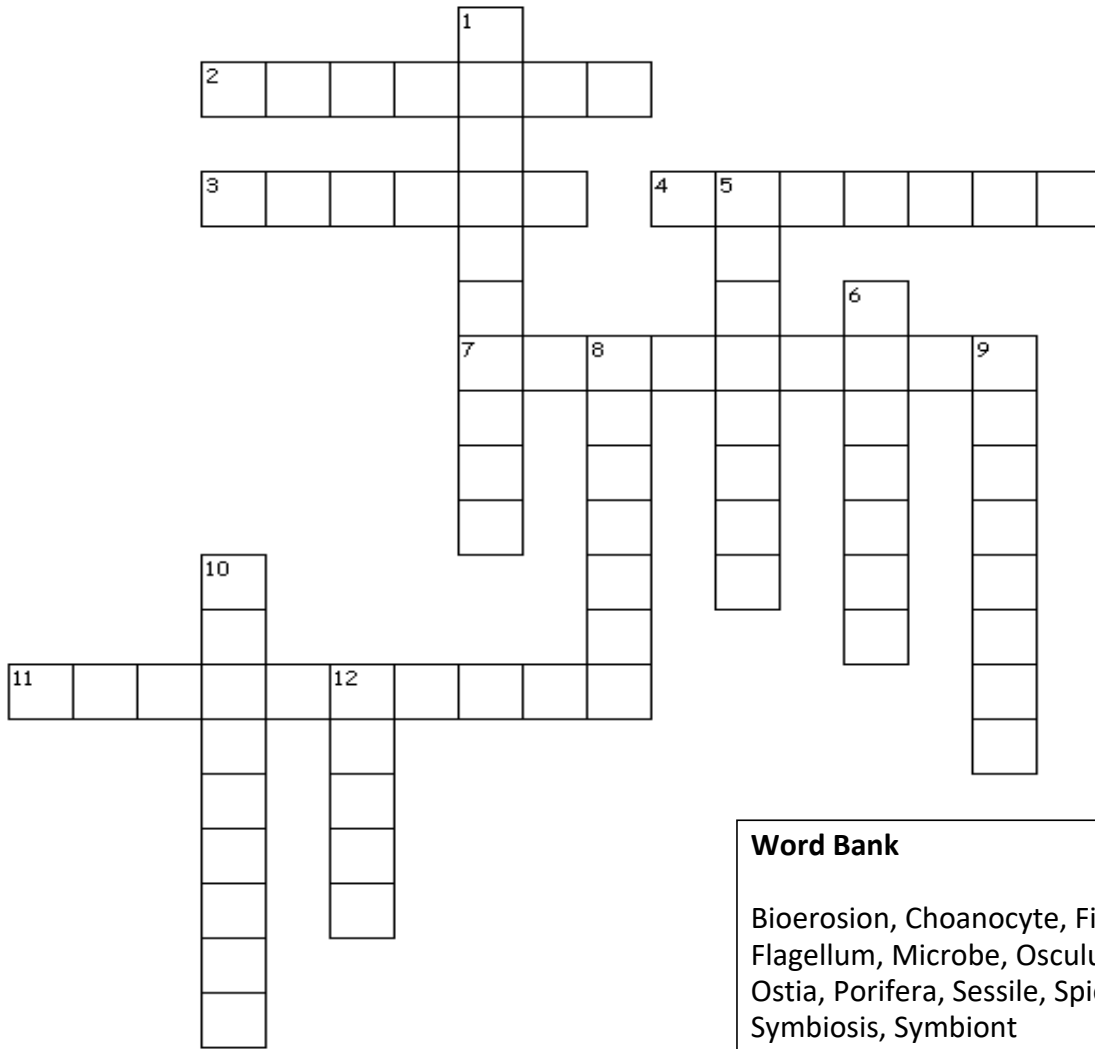
Sponges have \_\_\_\_\_ which are structures that allow water to move through their bodies.

The \_\_\_\_\_ are long thin structures that help create a current.

A close relationship between living things is called \_\_\_\_\_.

## Cross Word Puzzle

Use the hints at the bottom of this page and your vocabulary words to solve this cross word puzzle.



**Word Bank**  
 Bioerosion, Choanocyte, Filter,  
 Flagellum, Microbe, Osculum,  
 Ostia, Porifera, Sessile, Spicule,  
 Symbiosis, Symbiont

### Across

- 2. Immobile, fixed in one place
- 3. Feeding process by removing food from the surrounding water
- 4. Hard calcium or silica structure that support sponges' tissues
- 7. Close relationship between organisms
- 11. Cells made up of flagellum and collar which generate the flow of water through the sponge and act as part of the feeding system

### Down

- 1. Process by which organisms remove hard substrates (examples drilling, burrowing, grazing)
- 5. Group of organisms commonly called "sponges"
- 6. Larger opening in a sponge through which water is pumped out of the body
- 8. Living organisms too small to be seen with the naked eye
- 9. Member of a symbiotic relationship
- 10. Long, thin structures that can be used for cell mobility or to create a current
- 12. Pores on a sponge that allow water to enter the body