

NAME \_\_\_\_\_

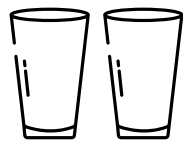
# MUSSELS: NATURE'S WATER FILTER CREATURES ACTIVITY

In the documentary *Watershed Warriors*, Gary talks about how mussels are an indicator species that help tell us if a river is healthy.

Mussels are filter feeders meaning they take water in through their gills to collect food and then push water back out clearer than it was before.

Like fish, their gills are also how they breathe! Mussels are also very sensitive to environmental changes, like pollution and habitat destruction. This means if mussels are found in a river, the river is healthy and has good quality water.

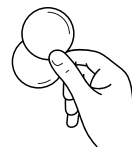
## Materials Checklist:



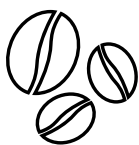
2 Clear Cups



1 Funnel



1 Large Cotton Ball  
or Piece of Gauze



1 Tbs of  
Coffee Grounds



1 tsp of  
Tea Leaves



1 Glass  
of Water



Spoon or  
Stir Stick

In this experiment, we will learn how mussels filter water through their gills and why this is important to a river ecosystem.

## Directions:

### **1. Make Polluted Water**

- a. Take one cup and fill it halfway with water.
- b. Stir in 1 tablespoon of instant coffee and 1 teaspoon of tea leaves.

### **2. Make a “Mussel Filter”**

- a. Place the funnel in the second cup.
- b. Push down the cotton ball or piece of gauze into the bottom of the funnel.

### **3. Filter Feeder Simulation**

- a. Slowly pour the polluted water mixture into the funnel.

### **4. Observation**

- a. Compare how the water looks before and after you pour it into the funnel.

1. What part of this experiment represents the mussel's gills?

---

---

---

---

2. What do you observe when the water goes through the filter?

---

---

---

---

3. What might happen to the river's water health if mussels disappear from the ecosystem?

---

---

---

---

4. Take a look at the cotton ball in the funnel. What does the cotton ball look like right now?

---

---

Draw the cotton ball!

Before:	After:

5. What happens when we add more of the pollutants to the water?

*Circle what you notice.*

The water speeds up.      The cotton ball gets dirty.

The water slows down.      The cotton ball get cleaner.

6. How do you think pollution affects a mussel's health?

---

---

---