

Name:

Class:

Date:

## Activity 15.4A: Groundwater Infiltration Lab

### Materials Needed

- “Contaminated” water
- Charcoal
- Coffee filters
- Cotton
- Empty water bottles with bottoms removed (2 per student/group)
- Gravel
- Rubber bands
- Scissors
- Screen
- Soil

### Section One

*Answer the following questions.*

1. Define *infiltration*.

Answer:

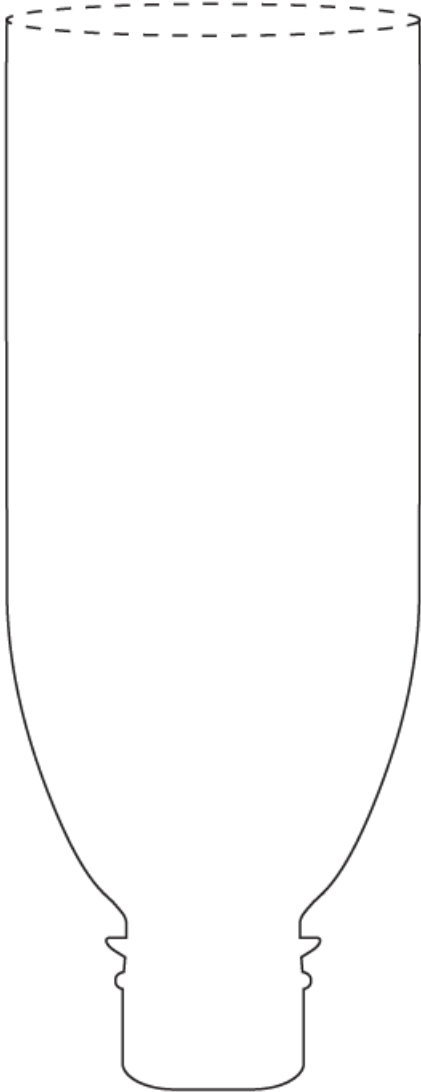
2. List three factors that contribute to the success of infiltration.

Answer:

### Section Two

*Using the “bottle” diagrams, draw and label the layers you will be using in your filtration system. Each group is allowed to do two design attempts.*

**System #1**



*Goodheart-Willcox Publisher*

1. What do you think is the most successful part of this design?

Answer:

2. Layer the materials in one of your water bottles in the same configuration as your design.
3. What was left in the water after the first filtration?

Answer:

4. Rank the color on a scale of 1 to 5 (1 being very clear) after the first filtration.

2

Answer:

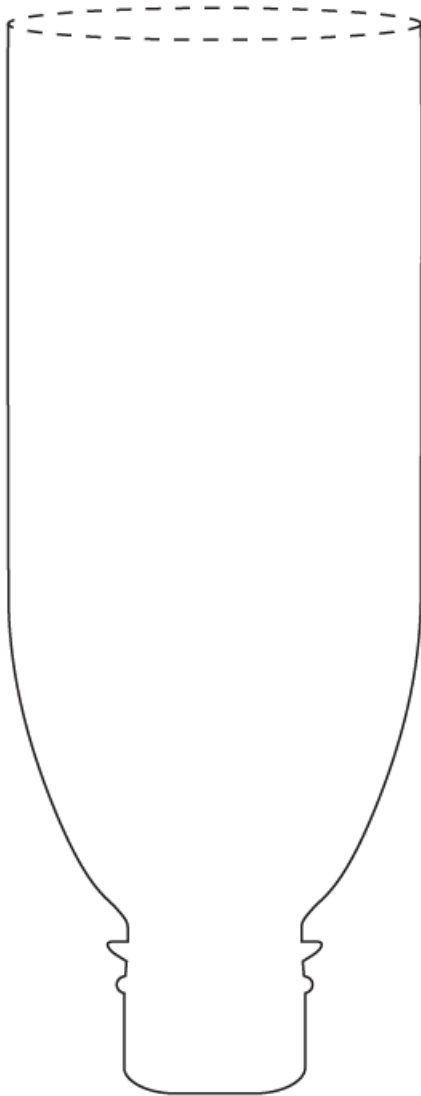
5. What was left in the water after the second filtration?

Answer:

6. Rank the color on a scale of 1 to 5 (1 being very clear) after the second filtration.

Answer:

**System #2**



*Goodheart-Willcox Publisher*

1. What do you think is the most successful part of this design?

Answer:

2. Layer the materials in one of your water bottles in the same configuration as your design.

3. What was left in the water after the first filtration?

Answer:

4. Rank the color on a scale of 1 to 5 (1 being very clear) after the first filtration.

Answer:

5. What was left in the water after the second filtration?

Answer:

6. Rank the color on a scale of 1 to 5 (1 being very clear) after the second filtration.

Answer:

### **Section Three**

*Answer the following questions.*

1. What is the best component of filtration?

Answer:

2. What was the hardest contaminant to remove?

Answer:

3. Search online to determine how activated charcoal works. Explain why activated charcoal is common in water filters.

Answer: