

Post-evaluation

HOW FAST DOES WATER TRAVEL THROUGH SOILS?

Name: _____, School: _____, Grade: _____

Read the following questions, and for each one circle the best choice:

1. Out of the soils listed below, which one has larger grains?

- a. Gravel
- b. Sand
- c. Clay
- d. All have the same size

2. What type of soil do you think has more voids or spaces between grains?

- a. Gravel
- b. Sand
- c. Clay
- d. All above have same voids

3. Which type of soil allows water to run through it the fastest?

- a. Gravel
- b. Sand
- c. Clay
- d. All above

Statement	Agree a lot	Agree	Disagree	Disagree a lot
I want to learn more about engineering problems				
Engineers should know where the water is within soils and how fast it travels through				
Math is important in <i>my</i> everyday life				
Robots can help solve engineering problems				
I want to use robots more often in the classroom				

5. Which type of soil, out of gravel, sand, and clay, has the highest permeability, and which one has the lowest permeability?

6. Without using an ultrasonic sensor for the permeability test, how much water was collected, and how long did it take to collect that amount of water?

7. Using an ultrasonic sensor for the permeability test, repeat the measurements and record the amount of water collected and the time it took to collect the water.

7. What is the flow of the groundwater in this model?

(Remember: $\text{flow} = \text{Volume} / \text{time}$)