

Name _____ Date _____



Desalination

STEM Sims

Lesson 2: Finding the Best Intake Depth Values

Now that you have your desalination plant running, what do you think is the best choice of warm and cold water intake depths to make the largest amount of fresh desalinated water? Take a dive into this simulation and see if you're worth your weight in salt.

Doing the Science

1. Start the Desalination Simulation by clicking on the "Sim" tab.
2. Select Surface for Warm Water Intake Depth and Surface for Cold Water Intake Depth, and then click Continue.
3. Connect all of the pipes and pumps properly. You discovered the correct arrangement of pipes and pumps in Lesson 1.
4. Push "Start" and record the liters/hr measurement in Table 1.
5. Do *not* exit from the program. Click "Reset Depths."
6. You will be returned to the main screen. Choose a new combination of intake depths to test, and then click "Continue."
7. Repeat steps 4-6 until you have filled out the whole table.

Table 1.

Cold Water	Warm Water					
		Surface	100 m	200 m	300 m	400 m
	Surface					
	100 m					
	200 m					
	300 m					
	400 m					

Do You Understand?

1. What was the best combination of water intake depths that made the largest amount of fresh water?
2. Predict what the liters/hr amount would have been if the warm water was collected at the surface and the cold water was collected at 500 m.