




## Experiment: Saturation Station

In this experiment, you will demonstrate how rainwater soaks into the ground and becomes groundwater. You will also see what happens when it rains too much too fast. You will use a sponge to represent the ground. You can use more than one type of sponge to represent different types of soil as well. When the water will no longer soak into the sponge, it has become saturated. When it rains, the ground becomes saturated with water as well. When this happens we have runoff. Runoff is stormwater that can't soak into the ground so it runs downhill. When it runs downhill, it takes trash and pollutants with it. We can't control how much it rains, but we can help keep trash off the ground.



Materials:	Instructions:
<ul style="list-style-type: none"> <li>• Tray to catch water, or be outside</li> <li>• Water</li> <li>• Measuring cup</li> <li>• Sponge</li> <li>• Another sponge of a different type (optional)</li> </ul> 	<ol style="list-style-type: none"> <li>1. Place your sponge in the tray or outside on the ground.</li> <li>2. Use the measuring cup to see how much water you can pour onto your sponge before it leaks out or runs off the top.</li> <li>3. Slowly pour the water over the top. Pausing to let it soak in. This represents a slow rainfall. The ground will have time to soak in the water.</li> <li>4. Once water starts to leak out or run off the top, stop and see how much water you were able to add. When the sponge (or ground) no longer absorbs water, it has become saturated with water.</li> <li>5. Squeeze as much water out of your sponge as possible.</li> <li>6. Quickly pour water over the sponge. This represents a downpour.</li> <li>7. How much water could you pour before it ran off? Was it as much as the slow rainfall?</li> <li>8. (optional) Try this again with a different kind of sponge. Was it able to hold as much water? Not all soil is the same, some areas of ground can hold much more water than other areas.</li> </ol> 