**Lesson 2: Lesson Question:** *How does water get into a river?*

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| **A. What activity did we do?** | *We did all of the 3 experiments:*  ***1****. We used a soil column to test how different surfaces affect the amount of water that can soak into the ground.*  ***2.*** *We poured water over different surfaces to see how the land’s surface affected how much water runs over the ground.*  ***3****. We created different landscapes and sprayed water over the different landscapes to test how the shape of the land affects how water runs over it.* |
| **B. What evidence did we gather?** | We observed:   1. Some surfaces like soil and gravel let water quickly soak into the ground, but others like clay or cement do not let water soak in. 2. Some surfaces like sod or soil slow water down and hold onto some of the water. 3. The shape of the land can influence where water flows and how quickly it moves. |
| **C. My answer to the lesson question:** | Water moves over the land in many ways. Gravity is the major force causing this movement whether it be sown a small hill or mountain. The surface type that water lands on influences how it moves. Certain surface like roads, roof and parking lots, don’t absorb any water so the water runs-off as surface water. If the surface can absorb water like grass, gravel, fields and forest, water can infiltrate into the ground and become groundwater, which moves between the spaces in rocks and soil slower than surface water. The locations where water goes are called reservoirs, which include lakes and rivers. The way water ends up in a reservoir is controlled by the shape of the land. Watershed boundaries, which are the high points on the landscape, control what reservoirs what water that lands on the ground will end up in. For example, the top of a hill may make water go to a river on one side of the hill, or a lake on the other side. This depends on which side of the hill the water lands on. These high points on the land define the boundaries between watersheds are system boundaries. |
| **D. Connecting my ideas to the Unit Challenge:** | In both the forested and present day lot models, gravity causes water to fall as precipitation. The elevation of the land determines whether the rain enters the stream system or not. In the forested lot, the ground that the rain fell on was very porous and allowed water to infiltrate and then it becomes groundwater. This infiltration makes the water move through the system slowly. In the present day lot, the ground in non-porous so water cannot infiltrate. It ends up running off over the land. This causes water to move through the system more quickly. |