Watershed Basics

A standard hands-on presentation for all ages explaining the flow of stormwater

***Background:*** *This presentation is meant for a small group and can led by students or an educator. It introduces the ARS to the audience through identifying how stormwater and the corresponding erosion potential across two distinct landforms. It is meant to be brief, interactive, and flexible lesson based on audience interaction.*

***Objectives:*** *Audience will leave the ARS knowing key vocabulary and facts about stormwater runoff. They will have an understanding about what a MS4 is and how it functions.*

**Group lesson with hands-on ARS Learning:**

1. Instruct audience to make tunnel with their fingers and lay the straws in the tunnels for effect.
2. After the tunnels has been formed have participants remove hands from sandbox.
3. Talk about what an MS4 system is and how it works.
	1. **Explain difference between impervious and permeable surfaces**: Use props to emulate rain fall runoff on houses, roads and parking lots.
	2. **Contour lines**: When they are close together, it is a steep slope. When they are far apart, the land is flat.
		1. *Would you rather walk where the lines are close together or far apart?*
4. Have the group make it rain over the mountain by holding their hands flat and spreading their fingers
	1. **Which way does the water flow?** Downhill
	2. **Does it go fast or slow?** Faster on steep slope, slower on flat
	3. **What happens to the soil when water is moving quickly down a steep slope?** Some water soaks in, most water is runoff that picks up soil particles and causes erosion (e.g. muddy water)
	4. **Is erosion bad or good?** Bad, it is the number one water pollutant.
	5. **What can we do to stop the erosion?** Plant trees or plants
5. Knock down the mountain and make a flat landscape
	1. **Now where does the water flow?** We can expect more infiltration and less runoff
	2. **Does erosion still happen?** Yes Example: muddy ditch or soil around a storm drain
	3. **What can we do to stop the erosion?** Plant vegetation around waterways and on slopes

**Presentation Style:**

Using ARS

**Time:** 10-15 minutes

**Age:** Any

**Group Size:** 6-10