

<b>Title of Lesson Plan</b>	Soil Slope
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<b>City and State</b>	Gunnison Utah
<b>Grade Level(s)</b>	9-12
<b>Keywords (subjects covered)</b>	Soil Slope
<b>Brief Description</b>	Measuring Soil Slope
<b>Total Time Required</b>	50 M
<b>Setting</b>	Classroom and outside (slightly sloping area)
<b>Lesson Objectives/Goals</b>	Students will be able to measure soil slope
<b>Materials Needed</b>	Transit or laser pointer, story pole or tape measure
<b>Standards Addressed</b>	Determining Soil Slope
<b>Procedure</b>	Measure soil Slope
<b>Assessment</b>	Each small group of kids can successfully measure slope.
<b>Literature Cited/References</b>	
<b>Forestry Tour Attended</b>	Portland, OR 2007

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**Preparation:**

- Gather items needed: Tape measure or story pole, laser pointer or laser level or transit.
- Have students measure distance of 100 feet and pace it off so that they can figure out how big each of their steps or paces are.

**Instruction:**

- Instruct students about soil slope and the affects of slope on erosion etc.
- Teach students how to use a story pole or tape measure.
- Instruct students on proper and safe use of laser.
- Measure pace size for each student.

**Activity:**

- Mark a place in the schoolyard to start with. Have students pace off the distance of 100 feet.
- Take an average of the area that they have paced off to get a “close to” accurate measurement.
- Use the transit and story pole or the laser and tape measure to determine the slope of the area.
- Mathematically figure the slope of the land. (For example: if you have a 3’ drop in 100 feet you have a 3% slope)
- Let each small group of students figure soil slope for a different area.
- You can also try some on the chalkboard to show them different scenarios.
- Tie this into the forestry unit by talking about safety in harvesting timber on sloped areas or how trees grow differently in such areas.

**Evaluation:**

- Quiz/test students on the math to figure soil slope.
- Lab test students by giving them a scenario and having them figure it out in the schoolyard.

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