# Soil

Volunteer Name: _____

Profession: _____

Employer: _____

## Managed forests protect water and soil by:

- Protecting streams and riparian areas
- Preventing stream sedimentation from forest roads

**1**

**Oregon's Forest Practices Act** has rules to protect soil and water. The rules include:

Landowners must make sure the location, construction, and use of forest roads doesn't add sediment to streams.

**2**

**Soil Structure**

Match the layer name to its location on the soil profile:

**R** = Bedrock

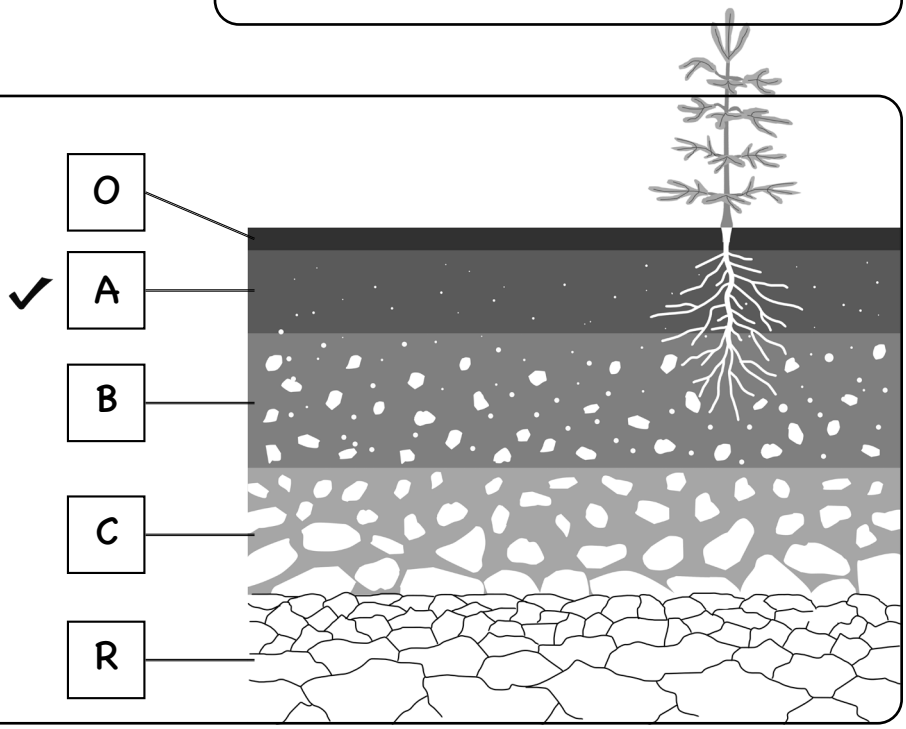
**O** = Organic layer

**C** = Parent material

**B** = Subsoil

**A** = Topsoil

Put a check (✓) next to the soil layer that is most affected by erosion.




**3**

Complete the chart below about the three **mineral components** of soil (sand, silt, and clay).

Put a checkmark next to the mineral component that remains suspended in the stream water the longest.

| List sand, silt, and clay by size: | | How does it feel? (circle as many as you like) |
|---|---|---|
| Smallest: | clay ✓ | Gritty Smooth Rough Course Slimy Soft |
| Mid-size: | silt | Gritty Smooth Rough Course Slimy Soft |
| Largest: | sand | Gritty Smooth Rough Course Slimy Soft |

**4**

**Erosion & Compaction Experiments**

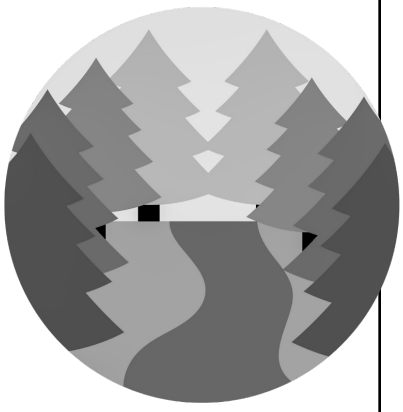
Answer the following questions based on what you learned from the experiments.

Water infiltrates compacted soil MORE (LESS) easily than uncompacted soil.

Compacted soil is (MORE) LESS likely to erode than uncompacted soil.

Vegetation makes it MORE (LESS) likely that eroding soil will reach a stream.

Rocked roads are MORE (LESS) likely to erode than unsurfaced (dirt) roads.



## DISCUSSION QUESTIONS:

1. What are causes of soil compaction?
2. When might compacted soil be helpful?
3. How do you think wildfire impacts soil?