



Earth Science Education Activity

# Virtual Field Exploration: Exploring Soils in Corvallis, Oregon

Accompany soil scientists on field visits across Corvallis, Oregon on a [Virtual Field Exploration](https://bit.ly/VFE_CorvallisOR) ([https://bit.ly/VFE\\_CorvallisOR](https://bit.ly/VFE_CorvallisOR)). At each stop, click on interactive hotspots to dig deeper into the story of the site through readings, videos, images, and expert insights. Begin by getting oriented with the region's geologic history and landscape evolution. Then, as you visit each field site, take careful notes on land use, topography, vegetation, and observable soil properties. Consider how underlying geology, climate, and human activities have shaped the soil at each location, and what that might mean for how the land is used today and in the future.

## WHY DO GRAPES GROW WELL IN THE WILLAMETTE VALLEY?

How has each of these main factors influenced the type of soil in this region?

Volcanoes
Plate Tectonics
Glaciers
Missoula Floods

## LEARN ABOUT SOIL SCIENCE CAREER PATHS.

1. Choose one soil-related career video from the Virtual Field Exploration and answer the questions below.
2. Then, partner with a classmate who watched a different video and complete the second column based on what they share.

Job Title	Job Title
Describe this person's job.	Describe this person's job.
What makes them excited about their job?	What makes them excited about their job?
What skills are needed in order to do this job?	What skills are needed in order to do this job?

3. After discussing the careers, consider what these careers have in common.

## SOIL COMPARISONS

As you progress through the Virtual Field Exploration, fill in the chart below with observations, notes, and questions.

Category	Stop 1	Stop 2	Stop 3	Stop 4	Stop 5
<p><b>General Observations</b> Describe the landform, slope, vegetation, and surrounding land use. Also examine the topographic map where this area is identified. How might the topographic map help you understand this site?</p>					
<p><b>Soil Observations</b> Draw a simple sketch showing where you think the different layers in the soil might be (i.e., a soil profile). Describe visible color, texture, and/or structure for each layer.</p>					

Category	Stop 1	Stop 2	Stop 3	Stop 4	Stop 5
<p><b>Soil Descriptions</b>                      From the soil description, record details that help explain how the soil formed or functions (e.g., drainage, parent material, depth, organic matter).</p>					
<p><b>Remaining Questions</b>                      What are you left wondering about the soil and/or the location? Were there any terms or details that you are curious about?</p>					

## REFLECTION

1. If you were going to start a grape orchard in the Willamette Valley, what are two important factors you would want to consider when selecting a site for your orchard? For each factor, identify a specific example from the Virtual Field Experience. You may use the sentence starters to help guide your thinking.

### Factor 1

One important factor I'd want to consider when selecting a site for a grape orchard would be...

This factor is important because...

An example from the field trip of why this factor is important is the soil from site #...

What I learned from this example is...

### Factor 2

One important factor I'd want to consider when selecting a site for a grape orchard would be...

This factor is important because...

An example from the field trip of why this factor is important is the soil from site #...

What I learned from this example is...

1. What new questions do you have about soils, soil-related careers, and/or land use after this field experience?
2. How might this experience have changed or brought out how you think about the ground beneath your feet?