

Unit: Native Plant Communities

Activity: Ecosystems of Washington & the Rain Shadow Effect

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Activity Length: 20 minutes Prep time: 0 Review materials: 5 min.

Guiding Questions: Why are there so many different types of plant communities and ecosystems in Washington?

Brief Description of Activity: Students will learn about and discuss the different areas of Washington and how geography effects the amount of rainfall in these areas.

Materials: 'Rainshadow Drawing', Vegetation Map of Washington master, Plant Community lists from Celebrating Wildflowers masters for copy.

Teacher Provided: Student binders with the above Vegetation Map and Plant community lists (or make copies from master set).

Activity:

- **What is a plant community?** *"Plants that live in a particular habitat and affect one another as part of the food web/ cycle of life, or through their influences on the physical environment" (provide shade, retain moisture, etc.)*
- **Hand out student binders** and refer students to the Plant Communities of Washington section by Celebrating Wildflowers. Have students look at the 'Vegetation Map of Washington' (student binder and Celebrating Wildflowers pg. 30).
- **Notice that we live in the Westside Lowland Forest.**
- **Why there are so many other types of plant communities in our state?**
- **Who has driven across I-90 or Highway 2 to Eastern Washington?** What did you notice? Discuss students experiences, what they noticed, etc.
- **Who knows what 'rainshadow' means?** Use the 'Rainshadow Drawing' as a reference and draw on the drawing board (start drawing from the west to east and if possible, actually draw it from west to east on the drawing board). Point out wind flow from the ocean currents (west to east predominantly). Show the how the clouds are slowed down at the Olympics, the Cascades, and again at the Continental Divide. Discuss the effects of cold air, etc on condensation and rainfall. Show how rainfall totals vary dramatically from one side of a mountain to another. Share experiences such as on field trips, family vacations, etc. (San Juan Islands/ Pt. Townsend are always sunnier, even called the Banana Belt, poor Forks gets so much rain, etc.)
- **How does this effect the development of plant communities?** Discuss (rainfall influences plant species type and size, ways plants interact, and survive.