1st Grade
Science Lesson

Fire as Tool: How Cultural Burns Support Plants and People

Lifeways: How a group of people live, work and play together.





Learning Outcomes

- I understand the function of different plant parts.
- I understand Oregon Tribes observe what plants need to survive and grow.
- I understand Oregon Tribes use fire as a tool to support plants.

Success Criteria

- I can identify ways plant parts help plants survive and grow.
- I can explain how Oregon Tribes observe plant problems and use fire as a solution.
- I can give an example of how Oregon
 Tribes help plants with fire today.



Key Words and Ideas

- Lifeways: How a group of people live, work and play together.
- Cultural Burn or Planned Burn: A small, safe fire that Native people start on purpose to help plants, using knowledge passed down for thousands of years.
- Plant Parts: The different pieces of a plant (roots, stem, leaves, flowers) that help it live and grow.
- **Problem and Solution**: When something needs to be fixed (problem) and finding a way to fix it (solution).



Essential Questions

Why do Oregon Tribes use fire to help plants grow?



Parts of a Plant

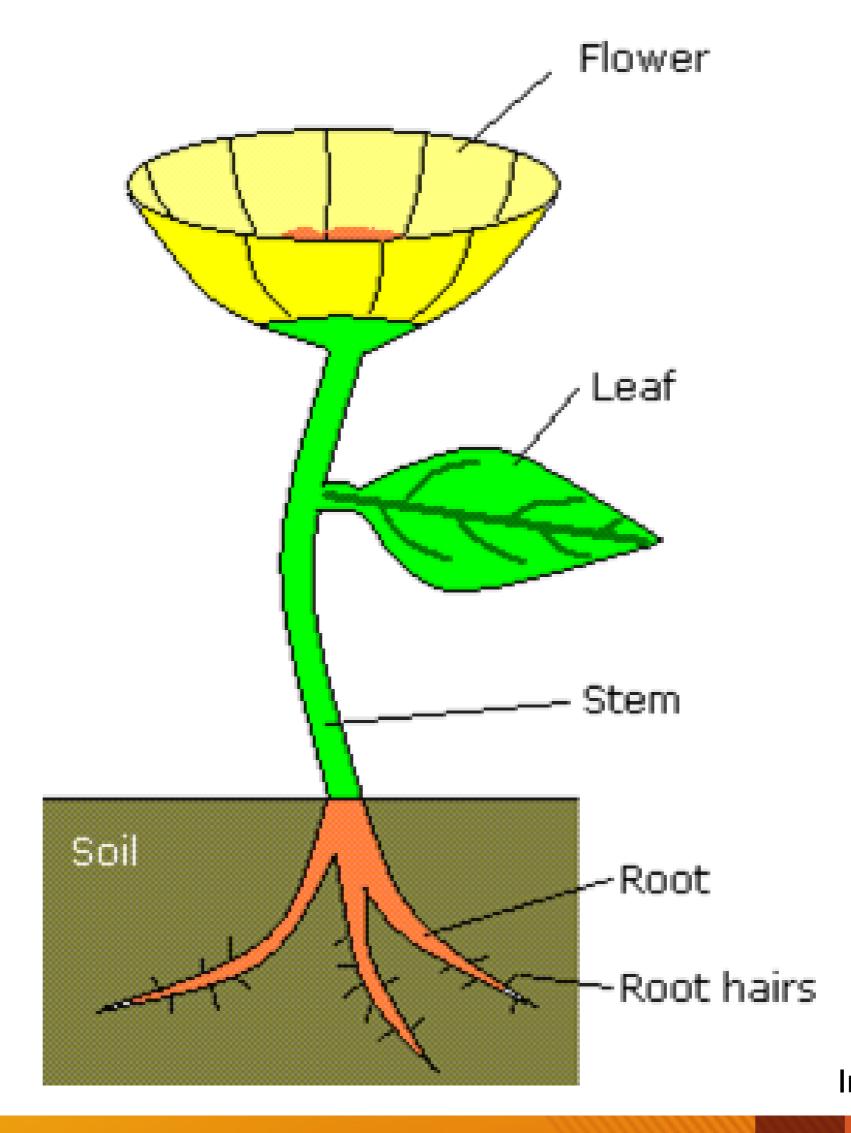


Image Courtesy of RobinH at the English Wikipedia



What do you see? What do you wonder?

No Controlled burns



Photo by Jim Choate, Courtesy Oreg. Hist. Soc. Research Library, OrHi 102218

Evidence of Cultural Burns



Photo courtesy Oreg. Hist. Soc. Research Library, OrHi 102218



Camas root is dug up after 4 years of growth to eat.



Image Courtesy of Walter Siegmund, CC BY-SA 3.0 https://creativecommons.org/licenses/by-sa/3.0, via Wikimedia Commons

Camas before processing. Photo courtesy of CTCLUSI.

- Camas grows better after a fire because the fire clears away other plants.
- This means more food for people.



Tarweed seeds are ground into flour to make cake. The leaves are used to treat poison ivy.



Image Courtesy of Wikimedia Commons

- Fire removes the sticky resin, making it easier to harvest the seeds.
- Fire opens seeds to go into the earth to grow.



Hazelnuts can be roasted, ground into flour or eaten out of the shell.



- Fire makes soil healthier, providing more nutrients for the trees.
- Fire helps trees grow more new shoots, which are good for basket weaving.



Huckleberries are delicious. Oregon Tribes dried them and used them for trading.



Evergreen Huckleberry Photo Courtsey of Willamette Biology https://www.flickr.com/photos/willamettebiology/5048944242/in/photostream/

- Huckleberry plants need open sun to grow.
- They are fire adapted and grow back quickly and healthy after a fire.



Cultural Burns at Smithfield Oaks: Re-kindling a Relationship with Fire



Luckiamute Watershed Council

Thank you!

