



Grade Level: 6
Subject: Science

Reforestation

ESSENTIAL UNDERSTANDINGS

- Since Time Immemorial
- History
- Language
- Lifeways

LEARNING OUTCOMES

- Students will be able to explain the benefits of reforestation in Oregon's timber forests.
- Students will be able to sketch the process of reforestation.
- Students will be able to identify human environmental impacts on Oregon's forests.
- Students will be able to develop a solution to combat human environmental impacts.

CULTURALLY RESPONSIVE PRACTICES

- Connecting to the lives of students
- Proximity
- Higher level thinking: developing
- Preserving and honoring cultural history
- Student talk, working together and individually

ASSESSMENT

Students will be assessed on their proficient completion of their Reforestation Project Plan.

Overview

Reforestation is an essential part in forest restoration and maintenance. In this lesson, students will learn about the purpose behind reforestation, the process of reforestation, and the benefits of working to restore natural areas. Students will also work to develop a solution to combat human environmental impacts.

MATERIALS

- [Reforestation Slide Deck](#)
- [Reforestation Process Notes Page](#)
- [2021 State Deforestation Ranking](#)
- [Deforestation Case Studies](#)
- [Reforestation Project Planning Document](#)

LOGISTICS

- Where does this activity take place?
Classroom
- How are the students organized?

Whole Class Teams: 3-5

Pairs **Individually**

TIME REQUIRED

2, 50 minute sessions

STANDARDS

Oregon K-12 Science Standards

MS-ESS3-3. Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.

MS-ESS3-5. Ask questions to clarify evidence of the factors that have caused the rise in global temperatures over the past century.

Background for Teachers

Resources:

[Reforestation | One Tree Planted](#)

[Silviculture and Fire Protection | Confederated Tribes of Grand Ronde](#)

[CTGR Forest Ordinance](#)

[United States Deforestation Rates & Statistics | GFW](#)

*Teachers may want preview and teach the lesson 6.SCI.Harvesting Lumber prior to this lesson.

VOCABULARY

- **Deforestation** - the purposeful clearing of forested land
- **Reforestation** - the process of replanting an area with trees
- **Seedling** - a young plant, especially one raised from seed and not from a cutting
- **Sapling** - a young tree, especially one with a slender trunk
- **Silviculture** - the growing and cultivation of trees
- **Cultivation** - prepare and use (land) for crops or gardening
- **Conservation** - the protection of things found in nature

Opening

Begin the lesson by posing the series of questions:

- *“In 1954, the United States Federal Government signed the Western Oregon Indian Termination Act. This Act terminated the federal recognition of Native American tribes in Oregon. More tribes were terminated in Western Oregon than any other are of the United States. Can anyone guess why?” (HINT: It is not because there were more tribes than in any other region) (ANSWER: access to trees, lumber, and rich soil)*
- *“Western Oregon is known for its booming timber industry. It has been this way since the 1800s. Think of how much logging can be done in this time. How does Western Oregon still have so many trees?” (ANSWER: the process of reforestation - replanting trees)*

Activity

1. Begin the Reforestation Slide Deck. **Teachers:** see the Speaker Notes on Slide 3 for answers to the Review Questions. When necessary, use provided lesson plan vocabulary to define terms for students.
2. Once reaching Slide 4, pass out the Reforestation Notes Page. On this slide, students will learn about the process of reforestation. Students should use the notes page to record key details about the process. They will be using this process later during their Reforestation Project Planning.
3. On Slide 7, encourage students to identify key details regarding the reforestation process used by the Confederated Tribes of Grand Ronde. Have students add to their reforestation notes page if necessary.
 - a. *What are the similarities between this process and the process on Slide 4?*
 - b. *What are the differences between this process and the process on Slide 4?*
4. Upon completion of the Slide Deck, display the 2021 State Deforestation Rankings. Explain to students that this table displays the rankings of U.S. states in order of forest loss due to industry, agriculture, and worsening wildfires. Discuss these rankings with students.
 - a. *What questions or wonders do they have?*
 - b. *Without any research, can they explain the rankings of the states?*
5. After discussing the rankings, pass out the Deforestation Case Studies. Teachers can decide if students will work individually, in pairs, or in small groups. Each student (or pair/team) should receive one case.
6. Read through the case studies aloud as a class and answer any questions students may have.

Closure

For assessment of this lesson, students will be tasked with developing a Reforestation Project Plan. Pass out the project planning document and allow students to work through the prompts of the reforestation process. Teachers may need to assist as needed. Students will need time and access to resources to research answers.

Differentiation

- If needed, teachers can decide to work through the Reforestation Project Plan and the Case Studies as a whole group setting. Students may also benefit from working in small groups with teacher aids to lead the project.

Extension

- To extend the lesson, have students work through each case study - developing a plan for reforestation. Afterwards, have students compare and contrast their reforestation plans.

Notes/Other

Jan Michael Looking Wolf's or Grand Ronde Canoe Family audio tracks can be played as background music while students are working. These audio tracks can be found on Spotify or Apple Music.

Jan Michael Looking Wolf: [Spotify](#) and [Apple Music](#)
Grand Ronde Canoe Family: [Spotify](#) and [Apple Music](#)

Appendix

- Reforestation Slide Deck:
https://docs.google.com/presentation/d/10okGrUcuPa0i3Q6XfifSb3-s9L7NqWXICs78fEKDxPs/edit?usp=share_link
- Reforestation Process Notes Page:
https://drive.google.com/file/d/1SpSpNtLzq1k72sfCdIMrEfHWkgDODG6A/view?usp=share_link
- 2021 State Deforestation Ranking:
https://drive.google.com/file/d/13_xmEIU2-3UqS6ySeQToGxu2A8ompStz/view?usp=share_link
- Deforestation Case Studies:
<https://drive.google.com/file/d/1jW5GYKf1vzvVLMsMn-JwDM-50gDpKIDn/view?usp=sharing>
- Reforestation Project Planning Document:
https://drive.google.com/file/d/1rH0muA9o4pnjmGN8gPQzz5nlSS5ztPeg/view?usp=share_link