

### ACTIVITY 3: Deforestation/Restoration

**Activity Objective:** Explain in detail how to plant a replacement tree and locate an area in a forest that will support tree seedlings or tree plants and plant a series of trees.

**Materials:** Chapter 15, paper, computer, printer, Internet Access, Tree Plants

**Definition:** Deforestation is moving trees from the planet's forests a non-ecological use. It can be for a practical purpose such as farming or ranching or can also be for a more harmful use such as harvesting trees without further replanting. An example of human-caused habitat degradation is deforestation. This is where trees from the planet's forests are removed for a non-ecological use. It can be for a practical purpose such as farming or ranching or can also be for a more harmful use such as harvesting trees without further replanting. This can lead to tree-species extinction and fewer oxygen emissions. It also destroys vital ecosystems where the forests inhabitants rely upon for shelter and food. According to the World Wildlife Foundation (WWF), 1.6 billion people rely on the benefits of forests and 31 percent of the Earth's surface is covered by forests. Over the last 50 years, 17 percent of the Amazon rainforest has been destroyed, lost for good, due to deforestation.

Seeds have been sprouting and trees have been growing for an awfully long time without any help from humans. The "natural way" to germinate tree seeds, then, is to allow nature to take its course. Most seeds, when sown in the fall without any pre-treatment, will begin to germinate the following spring. Be sure to sow the seeds at the recommended depth. If the seeds are planted too deep, this could delay or inhibit the spring germination process. With some seed varieties you may see germination spread over two or three years with some seeds germinating in the first spring and others taking longer to break dormancy and germinate.

It is important to remember that many species originated in cooler climates where seeds drop to the ground and are covered by leaves in the fall. Over the winter, the seeds remain bedded in this cool moisture environment. As the warm spring weather arrives the seeds then begin the germination process. For many types of seeds, the embryo inside the seeds is immature and unable to germinate (this is called 'dormancy') until it matures in this manner. The delay in the germination process is vital to the survival of many tree species. In a natural forest, if seeds germinated immediately upon falling to the ground in late summer or fall, the tender seedlings would die off during the cold winter.

#### REVIEW VIDEOS:

How to Plant a Tree, Step by Step (garden.org):

[https://www.youtube.com/watch?v=L\\_GIHv9DfDU](https://www.youtube.com/watch?v=L_GIHv9DfDU)

Best method to plant a tree or shrub: <https://www.youtube.com/watch?v=84k-UcMifqA>

Grow Peach Tree From Seeds: <https://www.youtube.com/watch?v=1vHDKnvaKXk>

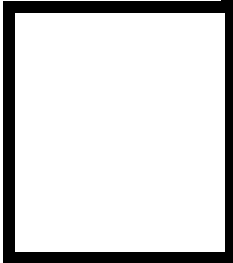
#### Procedure:

1. Work as partners or small teams.
2. Research and brainstorm the process of planting a tree using seeds or a plant.
3. Plant a series of trees and photograph the results to be presented in class.



RUBRIC

<b>4 World-Class Learner</b>	<b>3 Proficient Learner</b>	<b>2 Developing Learner</b>	<b>1 Emergent Learner</b>
Learner at this level has gone beyond mastery of knowledge, skills, & attitudes described in project. World-class learner consistently exhibits high-quality performance.	Learner at this level has had opportunities to apply knowledge, skills, & attitudes of component of project. Proficient learner has mastered essential attributes, thus proving mastery.	Learner at this level has been exposed to & had opportunity to apply knowledge, skills, & attitudes of project. Developing learner may have only a few essential attributes to master before mastery.	Learner at this level may or may not have been exposed to knowledge, skills, & attitudes required by academic standards of the project.



- 1 = Emergent Learner**
- 2 = Developing Learner**
- 3 = Proficient Learner**
- 4 = World-Class Learner**