

**Student Activity Sheet
Tree-Ring Expeditions (Trex)
Lab 1: Launching an Expedition**

Part 1 - What is Dendrochronology?

1.1 What types of trees and tree-ring sites are the most useful for tree-ring research?

1.2 Why are trees growing in manicured or landscaped areas not useful to study past climate conditions?

1.3 What governs the rate of tree growth at high altitudes?

1.4 Why is one part of each tree ring light in color and the other part dark in color?

1.5 What factors did Dr. Davi consider in choosing a good tree to core at her location in the woods?

1.6 What instruments did you see in your tour of the Lamont Tree-Ring Lab?

Part 2 - The Life of a Tree-Ring Scientist

2.1 What are the best parts of being a scientist as described by Dr. Cook and Dr. D'Arrigo?

2.2 What are some of the challenging aspects of being a scientist as described by Dr. Cook and Dr. D'Arrigo?

2.3 What advice do Dr. D'Arrigo and Dr. Cook have for students who are thinking about a career in science?

2.4 Give a brief description of each of the four sites.

2.5 What difficulties might you encounter at each site assuming you would need to spend two full weeks in the field?

2.6 Briefly describe some of the major goals of the NSF research division that you selected.

2.7 Briefly describe the project described in the news article you selected.

Part 3 - Exploring Tree-Ring Sites Around the World

3.1 How close is the nearest tree-ring research site from where you live? List all the information about the site here.

3.2 Describe one of the research projects that you found from Google Scholar, and describe in a few sentences (in your own words) what the study is about.

3.3 Why do you think it is important to do a search of the literature before you embark on a research effort?