

This resource was developed by:

The Wagner Free Institute of Science and its supporters
The National Science Foundation, through NSF# 0139303 and #0440506
Saint Joseph's University

**Sample Lesson from Grade 5 Unit: Investigation Our World
Week 6: Prep for Trip**

Standards:

Pennsylvania Academic Standards for Science & Technology

- 3.2.7 C Identify and use the elements of scientific inquiry to solve problems.
- 3.7.7 B Use appropriate instruments and apparatus to study materials.
- 3.2.7 B Apply process knowledge to make and interpret observations.

Material

Laptop
Projector
Lab Procedures
Leaves
Leaf Notebooks
Tree guides
Leaf packs
6 hanging scales
Pictures of stream habitats
Data sheets
Sentence strips

Lesson:

1. The Leaf Packet Network will be introduced. As a part of LPN we will be contributing to a tri-state data bases that monitors water quality. As a part of a large network we must use a standard protocol. We will watch a short video about the leaf packet network. (15 minutes)
2. We will introduce the area where we will conduct our own stream monitoring and set out the plan. Each student will get a map of the Delaware River Watershed. We will locate the Cobb's Creek on that map. In today's class we will go over the procedures and practice some skills that will help make our trip and experiment successful. (10 minutes)
3. We will rotate through three stations to get ready for our trip the next week. (45 min)
 - a. One station we will use the hanging scales to measure the leaf packets and leaves. (15 min)
 - b. Another station will be looking at the trees near Cobb's Creek. Students will need to be able to identify 3-6 trees found near Cobb's Creek. We will have leaf notebooks for students with an image of the trees leaves. They will be using field guides and observation of real leaves to add specific details to their leaf notebook. (15 min)
 - c. Last station will cover the habitat data sheet. Students will look at three pictures of different stream ecosystems and will fill out the habitat data sheet. (15 min)

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4. Lastly we will brainstorm questions to pose to establish our experimental packets. Start as a class talking about what kinds of things may affect our results. From there in small groups students should pose two to three questions to lead our experimental design. (20 minutes)

Writing Topic

What are you looking forward to learning during our field research?

Follow-up:

Complete Introduction of lab report.