



## Harvard LTER Schoolyard Program

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**Teacher Developed Lessons and Documents that integrate Harvard Forest Schoolyard Ecology Themes into curriculum.**

**Title: Starting The Our Changing Forests Project; Year One**

**Project: Our Changing Forests**

**Teacher: Judy Gibson**

**School: Francis W. Parker Charter School**

**Level: Middle School**

**Date: April 9, 2015**

# **Our Changing Forests**

Francis W. Parker Charter School

**Starting the project**

**Year 1**

# The Site

- An 80 acre wooded hill just behind the school
- Public land designated for education and recreation
- Shared with public disc golf course

Shepleys Hill, Devens, MA



Parker School



# Equity

6 classes, 150 students

How can everyone participate?

12 plots

=2plots per class

=12 students per plot

=Teams of 4:

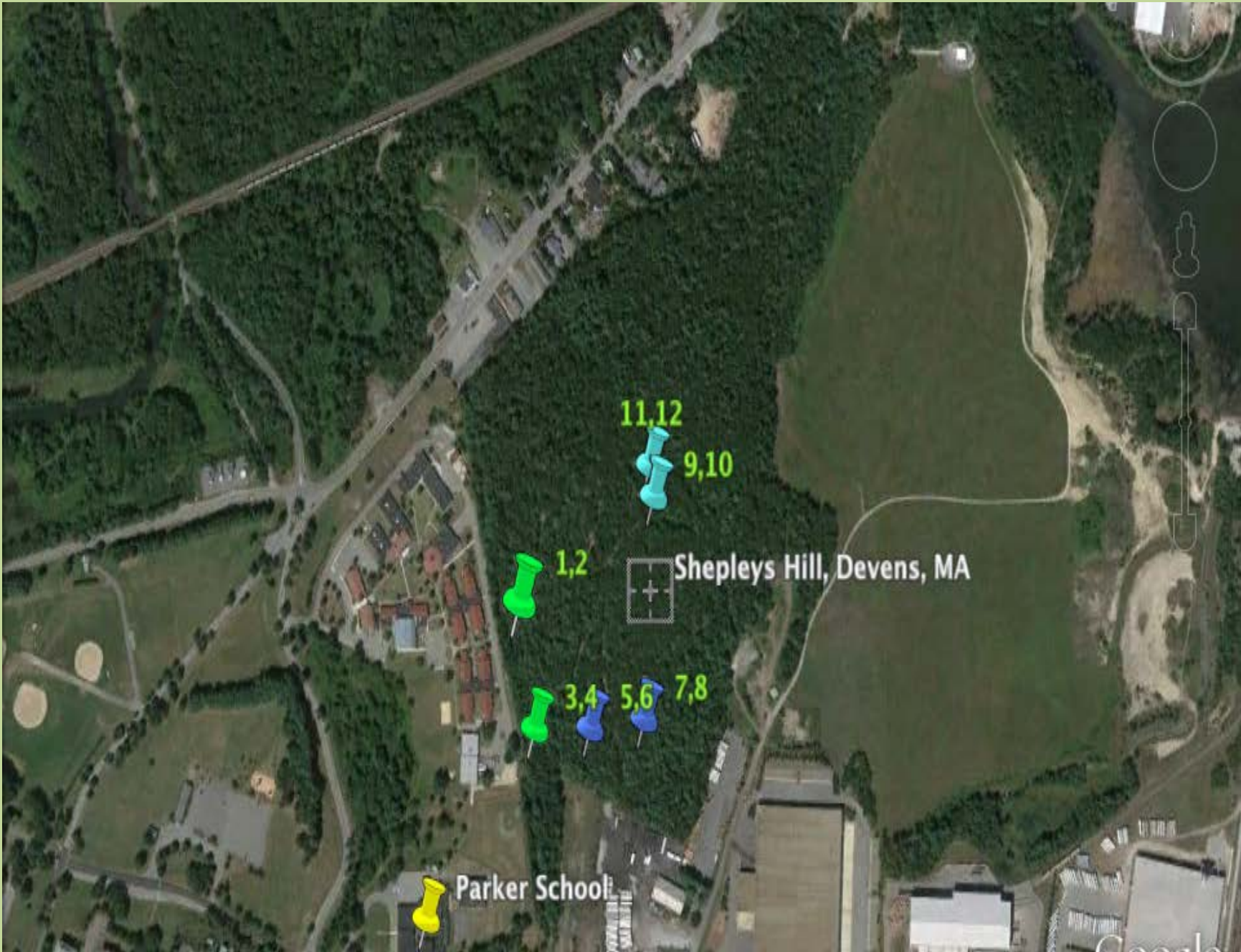
Plotters

Taggers

Diameters

# Planning

- ❖ Negotiations with the director of the disc golf course
- ❖ Walked the hill and agreed on 12 plots that would be off the disc golf courses
- ❖ Tried to have plots that were different:
  - ecologically
  - orientation
  - proximity to the school



Parker School

1,2

3,4

5,6

7,8

11,12

9,10

Shepleys Hill, Devens, MA

# Now for the students

In September

We drew leaf samples of the main tree types found on the hill to familiarize ourselves with them.

Students used field guides to try to identify the species and add features.

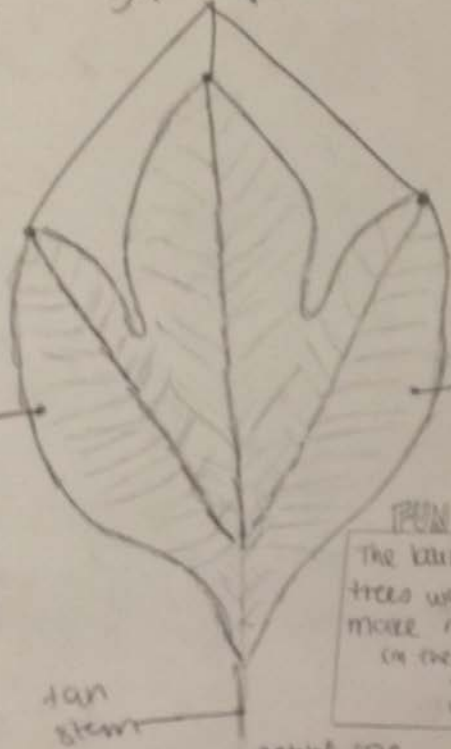


# SASSAFRAS

leaf

habitat  
 "A generalist;  
 found on rich and  
 poor sites."

3 prominent  
 veins

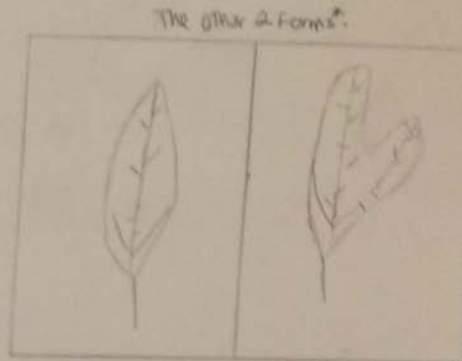


1.1in

medium-brightish  
 green

tan  
 stem

actual size



© Art drawn by Kiki

| name   |
|--|
| <p>habitat and region</p> <p>• This species grows in the wetlands, swamps, and along the edges of streams, rivers, and lakes.</p> <p>Found in the mountains, hills, and lowlands of the eastern United States, and also in the mountains of the southern United States.</p> <p>• young bark: tan, medium reddish</p> <p>• inner bark: more reddish brown, white with tiny, in age, becomes</p> |

### TRIVIAL FACT

The bark from these trees was used to make root beer (in the past)

### Alternata



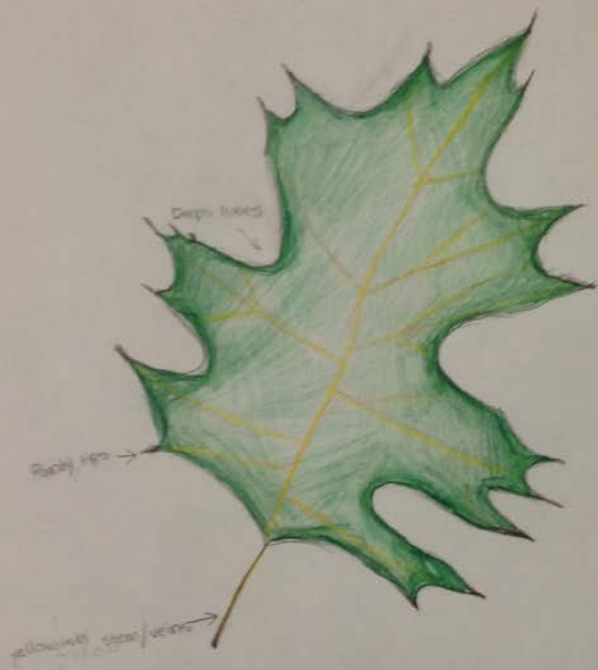
shown  
 form in  
 3 forms  
 (see above)

### Latin Name

Sassafras albidum (Mill.) Nees  
 wood: sassafras-hemlock

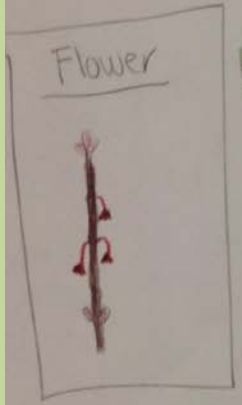
EMMA & S. ILL EVANS

# Pin Oak



# - Red Maple leaf

2" 11



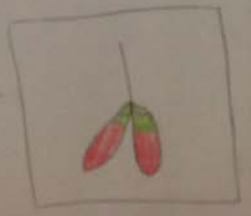
Leaf arrangement: opposite

Latin name: Acer Rubrum

Wood: soft  
not strong

tree Grows up to 20m tall

Fruit: Paired wings



# In late September and October

- Each team did a short practice session using the equipment and introducing the techniques
- Then taking 12 kids at a time we took trips up to the plot to stake out the plot , tag the trees and measure the diameter
- Some groups returned later to re-measure



















# Final check for accuracy

- I went back up in November, alone, and re-measured all the diameters. Probably about 60% of the student data was accurate.

Next time we practice measuring !