

Trees for Our School

Summary

Students will use GPS units to map the school grounds and mark buildings, objects, equipment, trees, parking lots, sprinkler heads.....They will then create a map in ArcMap to determine a good location to plant a new tree(s).

Time Frame

10 class periods of 60 minutes each

Group Size

Pairs

Life Skills

Thinking & Reasoning, Communication, Social & Civic Responsibility

Materials

15 GPS Units Digital Camera Computers ArcMap Software Internet Access Arborist

Background for Teachers

We are a new school (1 year). We have very limited tree/shade cover. The few trees we do have are very, very small. We have a need for more trees/shade.

Student Prior Knowledge

How to use a GPS Basic computer skills How to use ArcMap software Research skills

Intended Learning Outcomes

1. Students will learn how to use GPS handheld units 2. Students will learn how to use ArcMap software 3. Students will learn how to gather and analyze data 4. Based on the data, students will problem solve a location for a new tree (s) Essential Questions: 1. Why do you think the current trees are planted where they are? 2. What needs to be considered for planting a new tree (s)?

Instructional Procedures

I see fifth graders for 1 hour a week in the computer lab. The plan is to spend one session a month on GPS/GIS activities. Sept-Dec: • Intro GPS Units-Variou activities to learn how to mark waypoints, find waypoints, transfer waypoints and import into ArcMap. In small groups: • Map the school building perimeter • Map the playground (take pictures) • Map trees and other objects(take pictures) • Map sprinklers --meet with custodians to determine zones • Have an arborist come speak to the students • Plan how to obtain tree(s) Jan-Apr • Analyze data and create maps to decide where would be good locations for new trees • Research what types of trees would work best for our school/area • Plant the trees in a ceremony on Arbor Day (April 25, 2008)

Assessment Plan

There will be teacher observation using the associated rubric.

Rubrics

[Mapping Our School](#)

Bibliography

<http://www.arboday.org>

Authors

[JAMIE HAGAN](#)