

Tree Inventory and History (Benson High School, Portland, Oregon)

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Overview: Students locate, identify, and plot mature trees growing within two blocks of Simon Benson Polytechnic High School. Students will then analyze the distribution of the trees by type, height, and proximity to buildings. Students will research the historical uses of the land and compare the species of existing trees with those that were removed for settlement and present their findings.

Geographic Questions : What types of trees grow in the Benson High neighborhood today and where are they located? How and why have the types of trees grown and their location changed in the last 100 years

Curriculum connections: This lesson is part of the Biology curriculum—Ecology, communities, wise use of resources, and the scientific method.

National Geography Standards:

#1: How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information from a spatial perspective.

#3: How to analyze the spatial organization of people, places, and environments on Earth's surface.

#14: How human actions modify the physical environment.

Oregon State Content Standards:

(Geography) CIM/CAM: Use a variety of geographic representations to analyze information and draw conclusions about geographic issues. Identify and give examples of changes in human activity due to changes in the physical environment, and analyze the impact on both.

Grade Level: This lesson is intended for 9th graders, but could be applicable/adapted for younger students.

Objectives: The student will observe and gather, organize, and analyze data to compare land use in and around their school over time. The student will then prepare and present a report of their findings.

Materials:

- Aerial photo of the Benson vicinity (PPS Facilities Management)
- Blank “map” of the Benson vicinity (RLIS: Metro)
- Tree identification guide (Jensen, Edward C., et al. Trees to Know in Oregon. Corvallis: O.S.U., 1999.)
- Colored pencils, pens, crayons
- Presentation materials (Power Point, Display Board, etc.)
- Access to Oregon Historical Society Website (www.ohs.org)
- Historical photographs

Presentation Steps:

1. Anticipatory set—Students view photographs/slides of Portland's early history and are presented with the geographic questions.
2. Students are introduced to the “Geographic Process” (ask a geographic question, gather data, organize data, analyze the data, and answer the question) and shown how it is similar to the Scientific Inquiry Process.

3. Students work in teams to locate, identify, and plot on a map the location of trees within a two-block radius of Benson.
4. Students work in teams to compare the change in tree cover that has occurred in the area since the early days of Portland using historical photographs and maps. (Why do you think it's known as "stumptown"?)
5. Student teams prepare and present a report of their findings. Information can be included in the history of Benson High School.

Assessment: Each team prepares a presentation of their findings for inclusion in the annual Science Fair. The report may be on poster board, display board, or on Power Point and should include graphic representations to support their findings. A Scoring Guide will be used to evaluate presentations.

Extensions:

- Students prepare specimens of the trees surrounding campus and include them in a guidebook of tree types in the vicinity of Benson High School.
- Students measure the height and diameter of trees.
- Students write an analysis of land use as it relates to urban forests and predict what the area might look like in the future.
- Students' presentations could be tailored to meet Oregon CIM Speech requirements.

Tree Inventory and History Scoring Guide

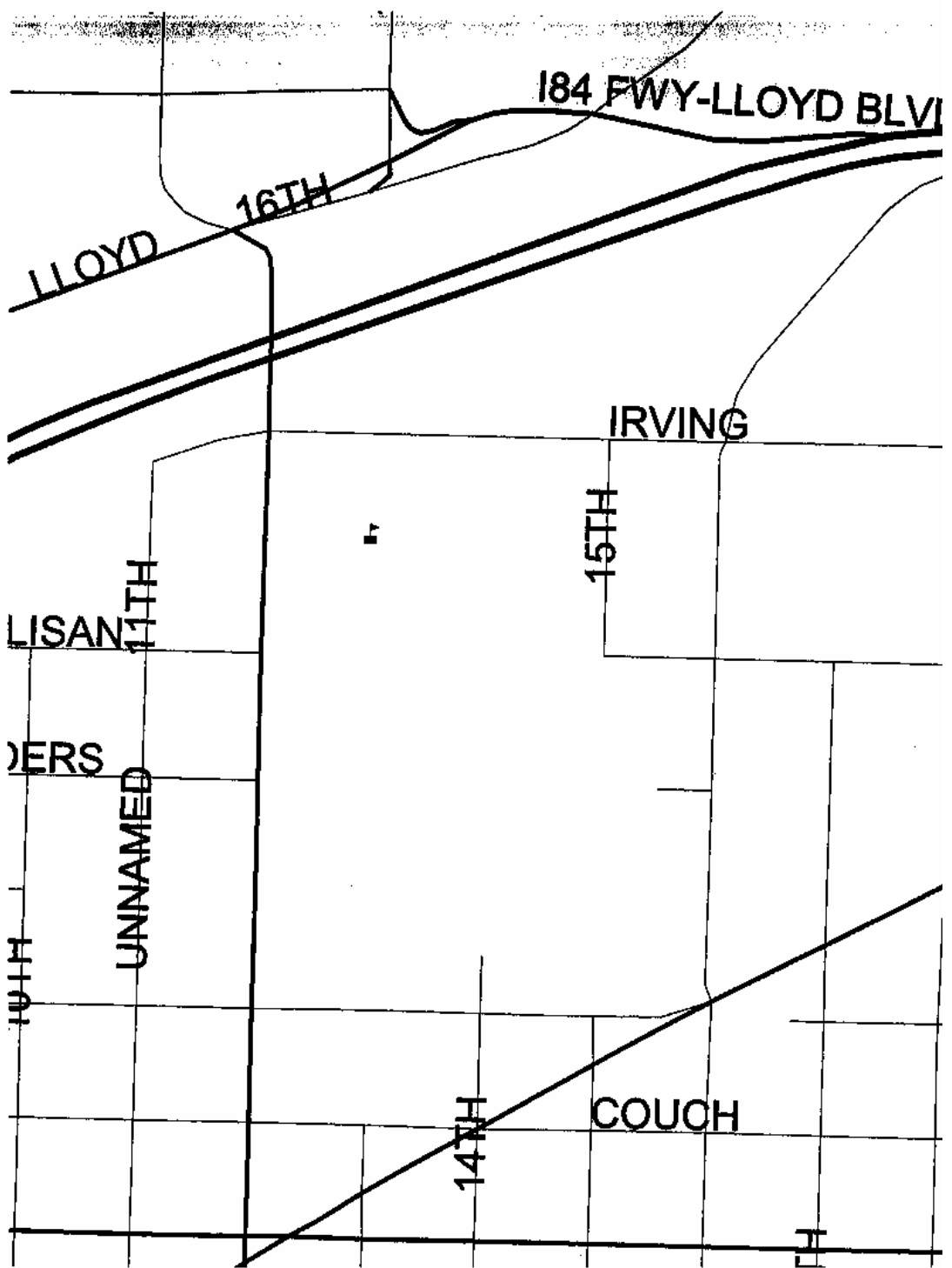
Name _____

Date _____ Class _____

Assignment _____ Score _____

<u>Criteria</u>	<u>Possible Points</u>	<u>Your Points</u>
The title of your presentation is bold and easy to read.	5	
The presentation clearly states the geographic questions.	5	
The presentation clearly answers the geographic questions.	5	
The presentation is organized in a logical, easy-to-follow format.	5	
The writing and use of graphics is exceptional.	5	
The presentation demonstrates a strong understanding of the geographic standards.	5	
The presentation reflects the use of fieldwork that demonstrates the geographic standards addressed in this exercise.	5	
Maps used in the presentation are clearly identified and include a key.	5	
Text and graphics used in the presentation are easy to read and avoid nonessential information.	5	
Total	45	_____

A= 40-45 B=35-40 C=30-35



Family _____
Genus _____
Species _____
Common Name _____
Location _____
Date _____
Collector _____