

Grades 5-8

Overview:

Elders and scientists around Alaska have spoken about climate change to both large and small audiences. The Oral History Program at the University of Alaska Fairbanks has been collecting oral histories since its inception. Project Jukebox, a way to digitally integrate oral history records with associated photographs, maps, and text, began in 1988. Today, the project has 29 Jukeboxes. Each contains oral histories and related materials regarding a specific topic in Alaska. In this activity, students explore the Climate Change Jukebox to make observations about climate change based on interviews within the Jukebox, then interview Elders in the local community to make connections between the community and the rest of the state.

Objectives:

The student will:

- use the Climate Change Project Jukebox;
- interview an Elder; and
- use a concept map.

GLEs Addressed:

Science

- [5-8] SA1.1 The student demonstrates an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring, and communicating.
- [6] SA3.1 The student demonstrates an understanding that interactions with the environment provide an opportunity for understanding scientific concepts by gathering data to build a knowledge base that contributes to the development of questions about the local environment (e.g., moose browsing, trail usage, river erosion).
- [7] SF1.1-3.1 The student demonstrates an understanding of the dynamic relationships among scientific, cultural, social, and personal perspectives by investigating the basis of local knowledge (e.g., describing and predicting weather) and sharing that information.
- [8] SF1.1-3.1 The student demonstrates an understanding of the dynamic relationships among scientific, cultural, social, and personal perspectives by describing how local knowledge, culture, and the technologies of various activities (e.g., hunting, fishing, subsistence) influence the development of scientific knowledge.
- [11] SC3.2 The student demonstrates an understanding that all organisms are linked to each other and their physical environments through the transfer and transformation of matter and energy by analyzing the potential impacts of changes (e.g., climate change, habitat loss/gain, cataclysms, human activities) within an ecosystem.
- [10-11] SD3.1 The student demonstrates an understanding of cycles influenced by energy from the sun and by Earth's position and motion in our solar system by describing causes, effects, preventions, and mitigations on human impact on climate.
- [11] SA1.2 The student demonstrates an understanding of the processes of science by recognizing and analyzing multiple explanations and models, using this information to revise student's own explanation or model if necessary.
- [9-11] SA1.1 The student demonstrates an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, analyzing data, developing models, inferring, and communicating.

Materials:

- Computer with Internet access
- OVERHEADS: 1) “Blank Concept Map,” 2) “Simple Concept Map,” 3) “Complex Concept Map”
- STUDENT WORKSHEET: “Project Jukebox Concept Map”

Activity Procedure:

1. Discuss concept mapping with the class. Explain that a concept map can do two things. In writing, a concept map can help organize one’s thoughts in a visual manner. When learning new material, a concept map helps one to visualize and make connections.
2. Show OVERHEAD: “Concept Map.” Explain that the transparency shows a blank concept map. To develop a concept map, one should take a blank sheet of paper and write down the main idea in the center of the sheet, then draw a box or circle around that main idea. Other ideas are to be written on the paper and connected with a line called a branch.
3. Display OVERHEAD: “Simple Concept Map” and OVERHEAD: “Complex Concept Map.” Explain how these maps are developed.
4. Use the chalkboard to develop a concept map with the class. Make sure there are at least two levels of branches.
5. Explain that, in this activity, students will work in pairs to explore the Climate Change Project Jukebox. Demonstrate how to log onto the Climate Change Project Jukebox by completing the following steps:
 - a. On a computer with Internet access, open a Web browser and navigate to:
<http://uaf-db.uaf.edu/Jukebox/ClimateChange/home.html>
 - b. Click on the name/picture of a person to access his or her interview.
 - c. Click on a blue/underlined section to read the transcript.
 - d. Click on the Audio button at the top of the screen to listen to the audio.
 - e. Demonstrate how to adjust the volume and pause and restart the audio, if necessary. *Note: the steps for this will vary with your audio player.*
 - f. When one section is completed, click on the back button to return to the previous screen.
6. Student pairs should pick an interview and listen to and/or read 5 sections of the interview, or more as time allows. As they are reading/listening, students should develop a concept map based on the material. Pausing the audio when necessary to discuss with a partner is recommended.
7. When each pair is done with their interview, ask one group to draw their concept map on the chalkboard.
8. Ask the next group to draw their concept map next to the first one. As a class, make connections between the two maps, drawing branches where needed, moving items if necessary, and erasing duplications. Continue until all concept maps have been tied together.
9. Discuss how the concept maps fit together. What inferences can be made about climate change across the state?
10. Ask each student to write at least one paragraph describing the concept map. Do an example on the board with the concept map developed in Step 4.

Teacher Note: You may wish to replicate the class concept map onto butcher paper and post in the classroom or school with the title “Climate Change Concept Map.”

Answers to Student Questions:

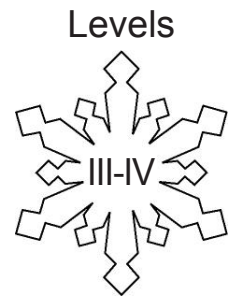
Answers will vary.

Name: _____

Name: _____

Project Jukebox Concept Map

Student Worksheet



With a partner, listen to or read at least 5 sections of an interview from the Project Jukebox: <http://uaf-db.uaf.edu/Jukebox/ClimateChange/home.html>. Draw a concept map below based on the content of the interview. If listening to the audio, pause it when necessary to discuss concepts with your partner.

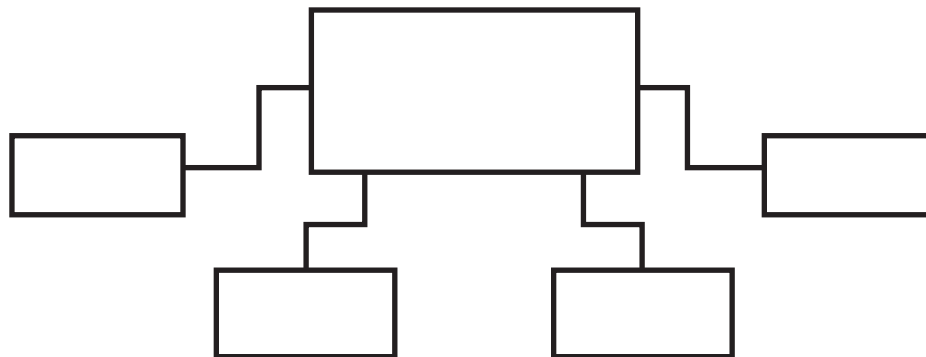
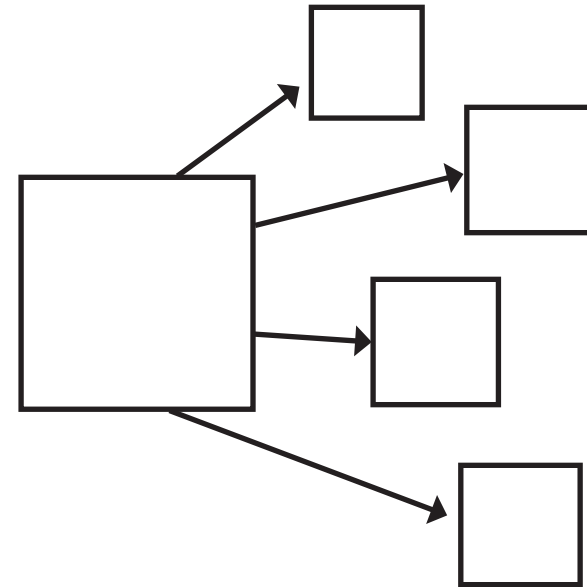
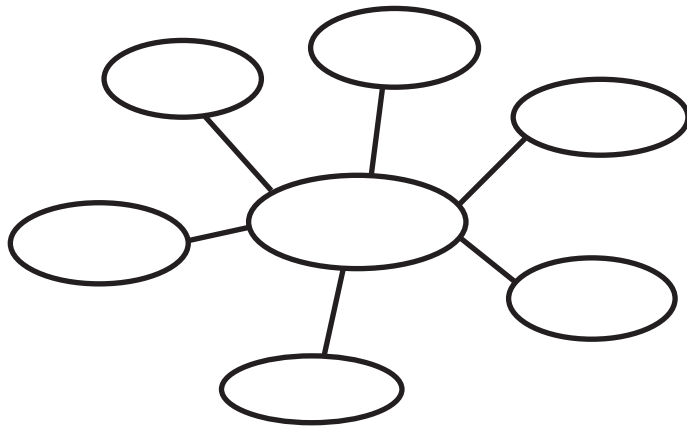
Interview of (speaker's name): _____

Concept Map:

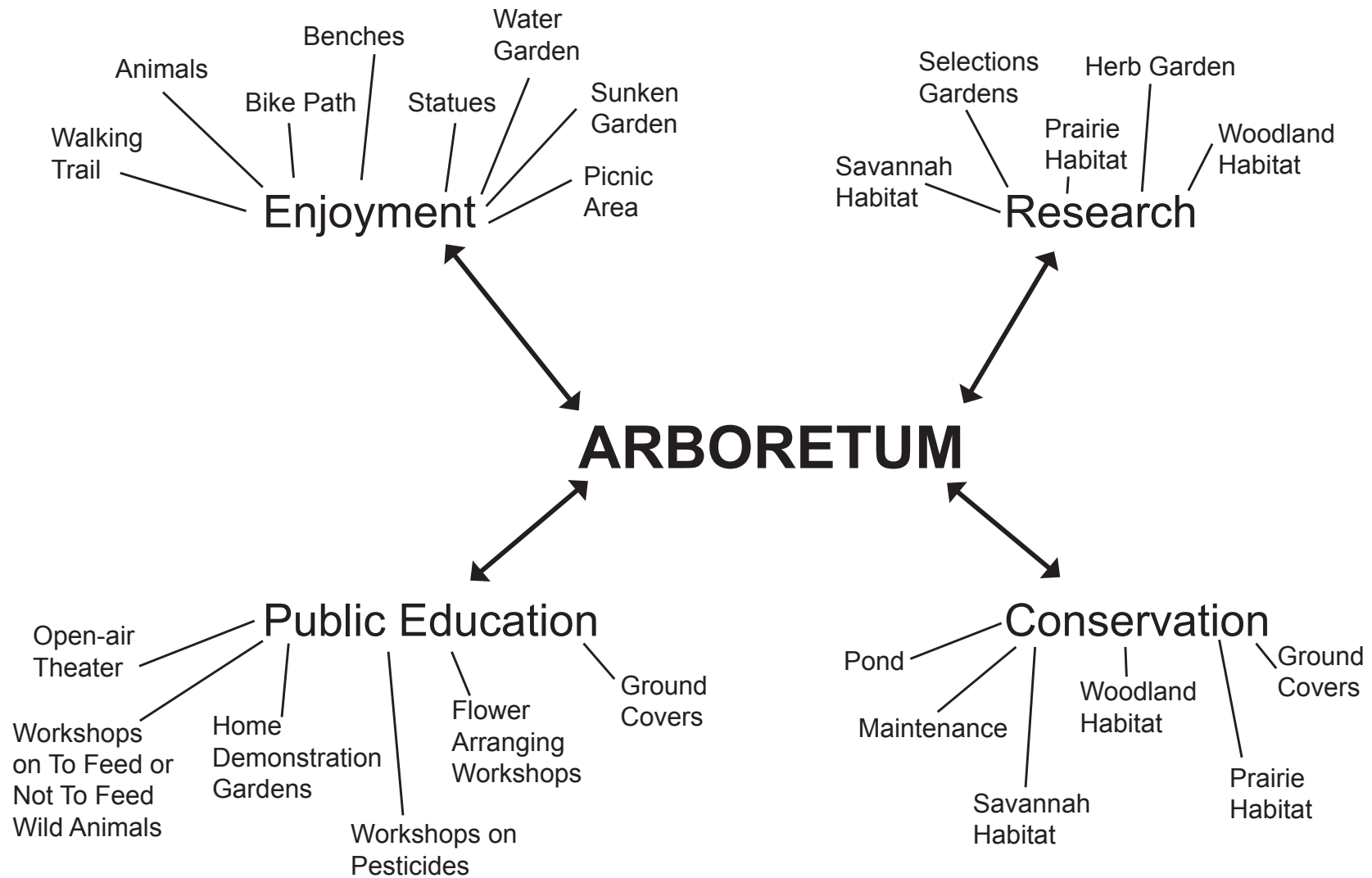
Blank Concept Map

Overhead

Spider Concept Maps

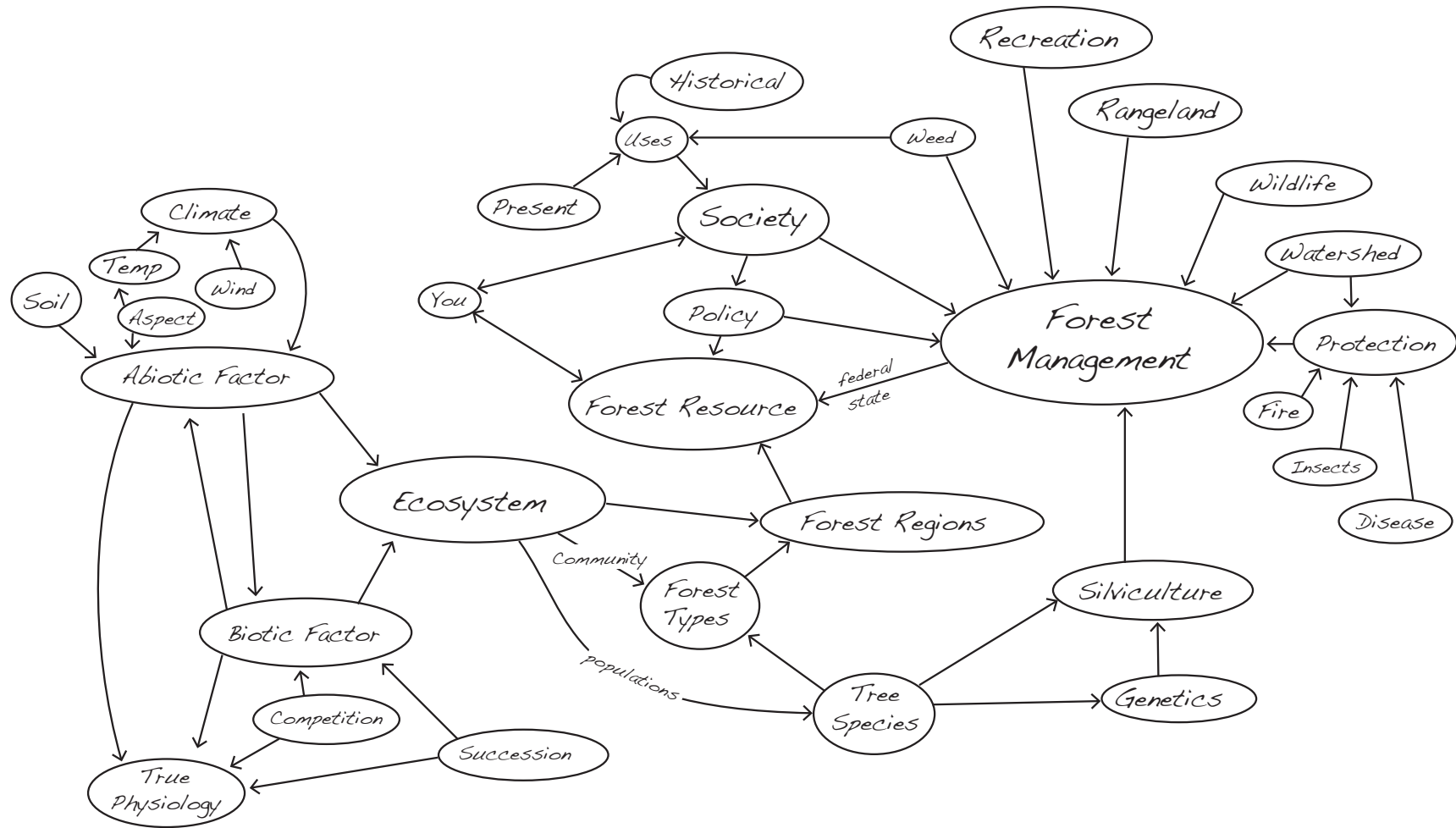


Simple Concept Map Overhead



Complex Concept Map

Overhead



credit: <http://classes.aces.uiuc.edu/ACES100/> - A complex spider map by John Edgington

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Project Jukebox