**Grade: 6-8**
**How do we use forest resources?**
**Lesson #C1:** **How Do You Use the Forest?**
**Time: 1-2 class periods**

**Overview:**
Students conduct interviews, compile data, and draw
conclusions about forest use.

**Essential Questions:**
What are the trade-offs associated with the use of wood?

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**Source:  AMEREF Forestry Module Fu1 How Do You Use the
Forest?**

# How Do You Use the Forest?
Grades 6-8
1-2 class periods

**Overview:**
Students conduct interviews, compile data, and draw conclusions about forest use.

**Essential Questions:**
What are the trade-offs associated with the use of wood?

**Assessment**
Can students: Collect, display, and analyze data about forest use?

**Vocabulary**
- recreational use

**Alaska Standards** Addressed:
**Science GLEs**
**The student demonstrates an understanding that interactions with the environment provide an opportunity for understanding scientific concepts by:** [8] SA3.1 conducting research to learn how the local environment is used by a variety of competing interests (e.g., competition for habitat/resources, tourism, oil and mining companies, hunting groups).
**Math GLEs**
**The student demonstrates an ability to**
**-classify and organize data by [6] S&P-1** designing an investigation and collecting, organizing, or displaying, using appropriate scale for data displays (tables, bar graphs, line graphs, or circle graphs), data in real-world problems with whole numbers up to 100 **[7] S&P-1** collecting, displaying, organizing, or explaining the classification of data in real-world problems, using circle graphs, frequency distributions, stem and leaf, or scatter plots with appropriate scale **[8] S&P-1** designing, collecting, organizing, displaying, or explaining the classification of data in real world problems using histograms, scatter plots, or box and whisker plots with appropriate scale [or with technology
**-analyze data by [6][7][8] S&P-2** using information from a variety of displays **[6] S&P-3** using or [**7] S&P-3** determining mean, median, mode, or range **[8] S&P-3** determining or justifying a choice of range, mean, median, or mode as the best representation of data for a practical situation

## Teacher information and Procedure

***Prior knowledge for students:*** Prior or concurrent math instruction in data collection, display, and analysis.

***Materials needed:***
paper and pencil
graph paper
copies of questionnaires - up to 10 per student

***What to do in advance:***
Copy questionnaires

***What to do during the lesson:***

- ***Gear up:***

Ask the students to list the different ways forests can be used by people in 15 seconds. List ideas on the board. Share and discuss.

- ***Explore:***

**Note:** Students should only interview people they know such as students, school staff, family, or family friends.

1. Continue brainstorming modern forest uses and list new ideas on the board.
Put check marks by any that have been done by students in the class such as
skiing, hunting, or trapping.

2. Tell students that their task is to collect data and analyze it to find out about the uses of the local forest. Review the questionnaire. Explain that it asks direct questions, ones that can be counted and graphed.  Allow students to modify the questionnaire to add or delete some uses, modify the questions, or add questions.   The entire class must agree on revisions to the questionnaire; it is important the all students use the same questions.

3. Explain that each student is to conduct their interview with 8-10 people they know. At least 4 that are interviewed should be adults.

4. After the research has been collected, each student should compile their own data.  Combine all of the students' data into a single set of data.  One way to do this would be to list the various possible answers on the board and have each student put tally marks after each one corresponding to their own interviews; another way would be to have students enter their data into a computer spreadsheet.

5. Ask students to graph and analyze the class data and determine the most frequent and least frequent uses of the forest.  If you wish, you could assign students to graph different parameters:   (most frequent use, uses by age

group, consumptive vs. nonconsumptive uses, etc)   They
should look for patterns in the data and try to infer why
the choices were made. Did people of different ages use the
forest in different ways?  Might they use the forest
differently if a different type of forest were nearby?

5. Have students share their graphs with each other.


- ***Generalize:***
Ask the following questions:
  - What conclusions can you draw from the data that was
    collected?
  - Was there anything about the data or the way that it
    was collected that could be misleading?
  - Why do different people use the forest in different
    ways?
  - Do some uses conflict with others?  Which uses are
    compatible?
  - How do uses of the forest by animals compare to those
    of  people?
  - Do you think people in other regions of the state have
    different uses for their local forests? Why?


- ***Assess:***
Ask students to individually write a short analysis of the
uses of the forest based on the data collected.  Use the
rubric to assess the data collection and analysis.

***Related Resources in the AMEREF Kit***
Books
Alaska's Forest Resources:  Alaska Geographic

***Extensions,  adaptations, and more resources:***
1. Ask US Forest Service, Cooperative Extension or Alaska
Division of Forestry
how they determine forest use in the state. Ask them how
their findings help
them manage or determine certain uses for forests.

2. Interview elders and determine if the uses of the local
forests have changed in their lifetimes and how.

## Background

The forests of Alaska are used for many purposes. They are used for
subsistence traditions (including fishing, berry picking, hunting, and wood
collecting for shelter, warmth, and crafting), trapping, wildlife viewing, hiking,
biking, skiing, bird watching, photographing and other recreational activities. And they are used for timber harvest for the production of wood products.
With the state containing the nation's largest national and state forests, which are still mainly intact, it is no wonder the world is looking at Alaska's forests with wonder and concern.

Use can be defined as both consumptive and non-consumptive. Non-consumptive use means that you use the forest for recreation such as hiking, bird watching, horseback riding, etc. Consumptive use means you take something from the forest and use it. This could be within a nearby forest such as hunting, wood cutting, timber harvest, fishing, or berry picking. It could also mean the consumptive use of forest products. Just because you don't have a forest nearby doesn't mean you don't use it. If you use wood products then you have a consumptive use for a forest.

# How Do You Use the Forest?

# INTERVIEW QUESTIONAIRE

**Directions:**

Interview 8-10 people that you know. These must be either students, teachers, parents, brothers and sisters, or family friends. Do NOT interview strangers. At least 2 of those interviewed need to be adults. Ask these same questions of each person you interview:

Name 5 ways you use the local forest (or would use it if there were one near us).
• sport hunting
• sport fishing
• subsistence hunting/fishing/food gathering
• photography
• hiking/walking
• skiing
• ATV use
• horseback riding
• trapping
• biking
• bird watching
• camping
• backpacking
• mining
• wood cutting (for personal use)
• to provide forest products your use
• other _____

Order your choices from the list above with a 1 for the one you use the most through 5 for the one you use the least.
1. _____
2. _____
3. _____
4. _____
5. _____

What is your age group?

_____ 10 and under_____11-17_____18-21_____21-40_____over 40

How Do You Use the Forest?

Rubric

| Criteria | Needs Improvement | Satisfactory | Excellent |
|---|---|---|---|
| Interviews/Data Collection | Interviewed fewer than 8 people, or data was incomplete | Complete data from 8-10 people, including 4 adults | Complete data from more than 10 people |
| Data Display | Scale and/or labels are missing, mistakes in graphing. | Appropriate choice of graph type, scale shown on graph, data graphed correctly. | Unusually complex or detailed graph; extremely clear communication of data |
| Data Analysis | Analysis incomplete or Conclusions about forest use did not match data | Logical conclusions about forest use were drawn from data | Analysis includes logical conclusions, discussion of limitations of the data, and questions for continuing research |