Name: Tammie Ennes Intermediate Grades
Title of Lesson: "Who Was That Leaf I Saw You With?"
Concept: The diversity of the external features of leaves aids in leaf survival in different environments.
Alaska Standards: Science A12

<table>
<tr><th>Prior Knowledge/Lessons</th><th>Process Skills</th><th>Materials</th></tr>
<tr><td>Familiarity with dichotomous keys through the use of beads, buttons, pasta, etc
Veining Patterns Lesson
"Touring the Tundra" Journal</td><td></td><td></td></tr>
<tr><td>Gear Up
KWL Chart (Know, Want to Know, and Learned)
Leaf Rubbings:
Compare, Observe, and Discuss leaf variations: Points, edges, veining patterns, colors, stems, wax/rough, etc.
See attached lesson for leaf rubbing lesson.</td><td>Observation
Comparison
Communication</td><td rowspan="3">Leaves

Crayons

Paper

"Leaf Look" Cards

Large Poster Paper

Zip Lock Bags

3X5 Note Cards

Food Coloring

Wax Paper</td></tr>
<tr><td>Explore

Take a field trip to the tundra in search of plants/leaves. In small groups, read the instructions on the "Leaf Look" Cards and collect a variety of tundra leaves. Store leaves in your group ziplock bag.</td><td>Classify
Observation
Communication</td></tr>
<tr><td>Generalize

1. How can we sort these leaves so we have one of each kind?
2. Why do leaves feel and look different?
3. How do plants protect themselves?
4. What do they need to protect themselves from?
5. Each group sorts their leaves using a dichotomous key.
6. Using large poster paper, as a class, make a huge dichotomous key to sort all the leaves so there are no duplicates.</td><td>Classify
Predicting
Observing
Inferring</td></tr>
<tr><td>Apply/Assess

1. Divide the class into two groups. The first group secretly chooses a leaf. After "getting to know their leaf," they write descriptive paragraphs using it's attributes. The second group reads the paragraphs and tries to identify the correct leaf. Then reverse tasks.
2. Write about the lesson in your "Touring the Tundra" journal.
3. Students make 4 batches of sugar cookies and color the dough red, orange, yellow, and green. Students make cookies according to color, shape, texture, etc. attributes.</td><td>Communicating

Observing

Defining Operationally

Measurement</td><td rowspan="2">Vocabulary

Attributes
Veining
Patterns
Palmate
Pinnate
Parallel
Oxygen
Carbon
Dioxide
Pigment
Chlorophyll
Texture
Stem
Leaf/Leaves
Data
Record
Descriptive
Paragraph</td></tr>
<tr><td>Extensions

1. Create a bulletin board that reads, "Who Was That Leaf I Saw You With?"
2. Puppet Show/Readers Theater (see attachment)
3. Students tell what their favorite food is. The leader records the data. Then trace a few of the foods back to plant origin.</td><td>Communication</td></tr>
</table>

Name_____

Lesson: "Who Was That Leaf I Saw You With?"

Scoring Guide of Student Assessment

	5	3	1
Observation (Field Trip to tundra to gather leaves with specific attributes based on "Leaf Look" cards.)	Gathered one of every leaf named on the "leaf look" card.	Gathered 50% or less of the leaves named on the "leaf look" cards.	Showed very little effort and gathered 25% or less of the leaves named on the "leaf look" cards.
Communication (Descriptive Paragraph describing attributes of one particular leaf.)	Wrote a descriptive paragraph of a leaf using at least 5 attributes.	Wrote a descriptive paragraph of a leaf using at least 3 attributes.	Wrote a descriptive paragraph of a leaf using only one attribute.
Communication (Read a descriptive paragraph of a leaf and chose the leaf described in the paragraph.)	Independently read the paragraph and chose the correct leaf immediately.	Needed some assistance reading the card but was able to choose the matching leaf.	Needed one on one assistance to complete this portion of the lesson.
Defining Operationally (Students describe what they did in today's lesson in their "Touring the Tundra" Journals.)	Wrote an entry in Science Journal naming every main event of the lesson.	Wrote an entry in Science Journal naming at least 3 main events of the lesson.	Wrote an entry in Science Journal naming at least 1 main events of the lesson.
Measurement (Making sugar cookies in the shape of plant leaves in small groups.)	In a small group, student correctly measured and mixed ingredients for cookies.	In a small group, student consistently asked for help to follow the recipe.	In a small group, student needed one on one attention through out this portion of the lesson.

5 = Outstanding

3 = Satisfactory

1 = Inconsistent