




# Shéiyi SPRUCE TREES

**Grade Levels K-1**



A series of elementary level thematic units featuring Tlingit language, culture and history were developed in Juneau, Alaska in 2004-6. The project was funded by two grants from the U.S. Department of Education, awarded to the Sealaska Heritage Institute (Boosting Academic Achievement: Tlingit Language Immersion Program, grant #92-0081844) and the Juneau School District (Building on Excellence, grant #S356AD30001).

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Lessons were field tested in Juneau classrooms in 2005-6.

All units are available online at [sealaskaheritage.org](http://sealaskaheritage.org).



### **Tlingit Cultural Significance**

Upon settling in Southeast Alaska the Tlingit people evaluated their environment. They adapted their lives to what nature provided – which is a lot of species of trees. This unit explores the use of the spruce tree. The roots provided containers for cooking, hats to keep people dry and lashings for many of the tools used. The trunk gives us canoes, paddles and temporary shelters, and the pitch was melted down and used as an antiseptic on cut and burns.

Many *atóow*—clan treasures—are carved from the trunks of spruce trees or woven from the roots. With a visit to a museum students can explore some of these items as well as everyday items made from the parts of a spruce tree.

### **Elder/Culture Bearer Role**

Elders can enrich this lesson with their knowledge of the traditional uses of the parts of a spruce tree as well as assist in the learning of Lingít words and phrases. Elders enrich the museum visit by expanding on and personalizing the knowledge shared on the museum description cards.

Throughout the unit an Elder can reinforce and teach language, cultural values and traditional knowledge.

### **Overview**

In **Lesson #1**, Let's Learn about Spruce Trees students learn the names for parts of a tree in Lingít and English and dress up as trees with roots, bark, and branches.

In **Lesson #2**, Let's Explore the Forest students are introduced to spruce trees in the forest.

In **Lesson #3**, Get to Know a Tree students draw, measure, and collect cones and make a rubbing from one tree they choose in the forest.



In **Lesson #4**, What do Trees Need to Grow? students learn about the life cycle of a spruce tree.

In **Lesson #5**, Who Needs Trees? students learn about squirrels in the forest. They also learn a Lingit song about a squirrel.

In **Lesson #6**, Whose Home is this? students listen to and dramatize a story about a young eaglet's life from egg to fledging.

In **Lesson #7**, Let's Find Tree Treasures in the Museum, students discover traditional objects and artifacts made from parts of spruce trees.

In **Lesson #8**, Spruce Root Gathering, students learn how to gather and prepare spruce roots.

In **lesson #9**, Let's Make Tlingit Band Aids, students learn the traditional Tlingit way to make a band-aid, using spruce pitch, spruce roots and leaves.

## **Alaska State Standards**

### **English/Language Arts**

- A1) Apply elements of effective writing and speaking
- B3) Relate what is viewed, read, and heard to practical purposes in the student's own life, to the world outside, and to other texts and experiences.

### **Math**

- A2) Select and use appropriate systems, units, and tools of measurement, including estimation.

### **Science**

- A12) Distinguish patterns of similarity and differences in the living world in order to understand the diversity of life
- A14a) Understand the interdependence between living things and their environments
- B15) Use science to understand and describe the local environment

### **Cultural Standards**

- A3) Acquire and pass on the traditions of the community through oral and written history
- C1) Perform subsistence activities in ways that are appropriate to local cultural traditions
- D1) Acquire in-depth cultural knowledge through active participation and meaningful interaction with Elders
- D3) Interact with Elders in a loving and respectful way that demonstrates an appreciation of their role as culture-bearers and educators
- E2) Understand the ecology and geography of the local bioregion



## Lesson # 1

### Let's Learn about Spruce Trees

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#### Objectives

Students:

- Learn the names for the parts of a tree in Lingít and English

#### Time

45 minutes

#### Materials

- Prior to class gather parts of a tree; bark, cone, pitch, needles, roots, branch
- Traditional uses of spruce tree sheet (See Resources)
- Spruce tree coloring page with Lingít/English labels
- Large spruce tree poster
- Lingít/English labels of tree parts
- Small tree coloring page and tree part label activity - one per student
- Crayons, markers, pencils
- Tree part patterns, cut out of brown paper.
- Brown and green butcher paper to make trunk tunic, headband, and branches
- Stapler

#### Vocabulary

##### Lingít

*shéiyi*

*a t'áni*

*at looní*

*s'óos'ani*

*aas k'óox'u*

*aas k'eeyi*

*gítgaa*

*xaat*

##### English

spruce

branches

bark

cone

pitch

trunk

needles

roots



## Lingít Phrases

*A'táni a daawu' wé shéiyi.*

*at looní*  
*s'oos'ani*  
*aas k'óó x'u*  
*aas k'eeyi*  
*xaat*  
*gitgaa*  
*at áxi*

The spruce tree has (branches).

bark  
cones  
pitch  
trunk  
roots  
needles  
sap

*Góosu wé (shéiyi)?*

*at looní*  
*s'oos'ani*  
*aas k'óoxu*  
*aas k'eeyi*  
*xaat*  
*gitgaa*

Where is the (spruce tree)?

bark  
cones  
pitch  
trunk  
roots  
needles

## Activities

### Activity #1

#### Learning the part of a spruce tree

Use parts of a tree previously gathered by you – the cone, branch etc. – to verbally introduce students to the spruce tree by showing them each part. Ask them to imagine how each of the parts might be used by Tlingit people.

### Activity #2

#### Parts of a spruce tree

##### Teacher Preparation:

Prior to introducing this activity draw a large construction paper spruce tree.

##### Activity

Distribute tree parts cards to individual students until every student has one. Use the phrase *A'táni a daawu' wé shéiyi* to reinforce student learning of the names of the parts of a tree in both English and Lingít. Call on one student and have him/her say the phrase, and as he/she does, add a picture to the large spruce tree.



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(A t'áni) a daawu' wé shéiyi.

at looní

s'oos'ani

aas k'óox'u

aas keeyi

xaat

gitgaa

at káxi

The spruce tree has (branches).

bark

cones

pitch

trunk

roots

needles

sap

Continue practicing until all students holding cards have put their tree part card on the tree. After practicing for a short time, distribute the individual tree coloring and labeling sheets so that students complete them individually. (see resources)

## Activity #3 Dress-up like a spruce tree

After students have learned the names for the parts of a spruce tree, ask one student volunteer to come forward to be dressed as a spruce tree. Using the paper patterns provided, create brown slippers for tree roots, brown tunic or vest for bark and a branch headband. Recall the Lingít and English names for these tree parts as you assemble them and then put each part on the student.

Once the “tree” is dressed, children can make the sound of the wind blowing to make the tree sway to and fro. After the activity put the tree “costume” in a Forest Center in the classroom so that other children can practice dressing as a tree.

### Assessment

Observe student participation as they identify the parts of the spruce tree. Check each student's tree labeling sheet to determine if he/she has labeled the tree parts correctly. Ask individual students to say the names of the tree parts in Lingít and record their answers on a checklist. Determine if more time is need for review.

### Reference Materials and Websites

- *Where Would I be in an Evergreen Tree?* by Jennifer Blomgren, ISBN 1570614148, published by Sasquatch Books.
- *Tree: A Life Story*, by David T. Suzuki, ISBN 1553650166, published by Greystone Books.
- *The Last American Rainforest: Tongass*, by Shelley Gill, ISBN 0-934007-33-0, published by Sasquatch Books.
- <http://www.arboday.org/kids/carly/lifeofatree/>
- <http://www.urbanext.uiuc.edu/trees1/flash/index.html>



## Lesson 2

### Let's Explore the Forest

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#### Objectives

Students:

- Experience and acquire knowledge about the physical features of a tree.
- Learn to say the Lingít words and phrases pertaining to spruce trees and forests

#### Time

45 minutes

#### Materials

- Tape
- Waterproof pens
- Tree name tags
- Paper doll
- Paper tree parts

#### Vocabulary

##### Lingít

*aas gutú*

*shéiyi*

*túkí'*

*yán*

*at looní*

*a t'áni*

*xaat*

*gítgaa*

*at káxí*

##### English

forest

spruce

young spruce tree

hemlock

bark

branches

roots

needles

sap

#### Lingít Phrases

*At gatoodé nax too.aadí.*

*Shéiyi xwaat'éi.*

*Ax aasí \_\_\_\_\_yóo duwasáakw.*

Let's take a walk in the forest.

I found a spruce tree.

My trees name is \_\_\_\_\_.

#### Activities

### Activity # 1

#### Forest Field Trip

Going outdoors to take a walk in the forest is an excellent opportunity for children to use all of their sensory learning to experience trees in their natural habitat. Encourage lots of English and Lingít language throughout the walk, naming parts of the tree, listening for use of any descriptive words.



Pose questions to children, asking them to investigate trees. Individual students should look for a favorite tree, and then touch the bark, smell the needles and sap, and put a tag with their own name on the tree (students need to be able to find their tree again during a later activity).

## Activity #2 Paper Doll Tree

Once back in the classroom, using the paper doll and the tree clothes have students color and have fun turning their doll into a tree.

Encourage students to use their doll to teach someone in their family the names of the parts of a spruce tree in Lingít.

### Assessment

Listen for student knowledge of words that describe the forest and trees. Can they recall the names used for tree parts as they “dress” their paper doll?

### Resources and websites included with this lesson

- <http://www.arborday.org/kids/carly/lifeofatree/>
- <http://www.urbanext.uiuc.edu/trees1/flash/index.html>

### Optional Extension Activity

Develop a corner of the classroom to become a Forest Center. Leave the tree costume in the center with a (full-length) mirror for children to view themselves as a tree. Schedule 10-minute periods of time for small groups of students to go to the Forest Center. Add hand lenses, parts of trees (bark, cones, leaves, branches) school library books about trees, photographs and paintings of trees, simple poems about trees and drawing supplies to draw trees.

## Lesson 3 Get to Know a Tree

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### Objectives

Students:

- Further expand their knowledge about the physical features of a spruce tree
- Learn to use appropriate Lingít words and phrases
- Show respect for the natural environment when on a forest walk

### Time

45 minutes

### Materials

- Copies of student tree journal
- Pencils/crayons
- Tape
- Ball(s) of string/scissors
- Measuring tapes



## Vocabulary

### Lingít

*xwalitin*

*xwakaá*

*yahaayí*

*shéiyi gítgaa*

*yán gítgaa*

*x'úx'*

### English

observed

measured

picture/rubbing

spruce needles

hemlock needles

journal

## Lingít Phrases

*Shéiyi xwaat'éi.*

*At sáayi a jeet xwaatée wé aas.*

*Ax aasí yóo duwasáakw (\_\_\_\_\_).*

I found a spruce tree.

I gave the tree a name.

My tree's name is (\_\_\_\_\_)

## Activities

### Activity #1

#### Getting to know a spruce tree

Return to the forest you visited earlier with the students. Children should find their marked trees. Direct them to make an observation drawing of their tree in their journals with pencils and crayons.

After they have finished drawing, have each student cut a length of string from the string ball to measure the tree. Then they record the inch/foot measurement in their journals. Using the side of the pencil or crayon, students make a bark rubbing of the tree on a journal page. Children can give a name to their trees.

### Activity #2

#### Sharing your favorite tree

Ask children to share the information they gathered in their journals with each other, in pairs preferably. They should describe their tree, say where they found the tree, tell what made them choose that particular tree, estimate how tall it is, how round it is, what the bark felt like, whether any animals or birds might like that tree, etc.

## Assessment

Listen for children's experiences and knowledge of the forest and trees. Can they work independently to record information in their journals? Can they work cooperatively in pairs or small groups, telling each other about what they know about their tree?



## Lesson #4

### What Do Trees Need to Grow?

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#### Objectives

Students:

- Learn about the life cycle of a tree from seedling to maturity
- Use Lingít words and phrases about trees

#### Time

45 minutes

#### Materials

- Tree Life Cycle Book and Cards
- Student Tree Journals
- Crayons, pencils
- Earth books from the school library with pictures of the sun, rain and soil
- Life Cycle of a Pine Tree, Rourke Classroom Resource

#### Vocabulary

##### Lingít

*shéiyi kusteeyí*

*s'óos'ni*

*at x'akeidi*

*a shaadi*

*aasyádi*

*Kiswás aasí*

*kanas.éin*

*gagaan*

*kútlkw*

*héen*

##### English

spruce life cycle

cones

seeds

sprout/germination

sapling

Christmas tree

grow

sun

soil

water

#### Lingít Phrases

*Shéiyi kusteeyí áyá*

This is a spruce tree's life cycle.

#### Activities

##### Activity #1

##### How does a tree grow?

Show the class the tree life cycle cards while describing the growth of the tree from seed to death. Ask children if they have seen trees in each of these stages.

Have you ever seen a seedling?

Have you ever seen a Christmas tree?

Have you ever seen a 100 year old tree?

Invite the students to help you put the tree life cycle cards in sequential order.



## Activity #2 What trees need to grow

Read the book *Life Cycle of a Pine Tree*, (Rourke Classroom Resources, [www.rourke-classroom.com](http://www.rourke-classroom.com).) Discuss what trees need to grow.

In their journals, children now draw the elements needed for trees to grow (sun, soil and water). Have library books available so students can see how different illustrators show these elements in books.

### Assessment

Do children understand the concept of “life cycle”? Listen for evidence of this understanding by group and individual responses.

Ask children individually to tell what a tree needs to grow and record their correct answers on a checklist.

Ask students to place growth cards in sequential order.

### Optional Extension Activities

Schedule time for children to go to the Forest Center and make a drawing or painting of the life cycle of a tree.

Gather samples of spruce cones and seeds and hemlock cones and seeds for children to observe with hand lenses.

Sprout some lima beans so children can see larger seeds sprouting and observe another plant’s life cycle.

## Lesson # 5 Who Needs Trees?

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### Objectives

Students:

- Recognize a squirrel midden in the forest.
- Learn words and phrases to a Lingít song about a squirrel.

### Time

45 minutes

### Materials

- Spruce cones master
- Squirrel tail pattern
- Brown construction
- Yarn
- Scissors, crayons
- CD of Lingít squirrel song
- Library books about squirrels
- CD of squirrel song



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## Vocabulary

### Lingít

*kanals'áak*

*s'óos'ni*

*at x'aakeidí*

*kanals'áak l'eedí*

### English

squirrel

cones

seeds

squirrel's tail

## Lingít Phrases

*Haagú kanals'áak.*

*Ax xooní shaklagéi.*

*lxsixán, lxsixán Kúnáx.*

*Yáat'aa s'óos'ani.*

Come here squirrel.

My pretty friend.

I love you, I love you alot.

Here is a cone.

## Activities

### Activity #1 Finding a Midden

#### Teacher Preparation:

You will need to find a midden before this lesson. A midden is a squirrel's pinecones remnants – the discarded parts of the pinecone once the seeds are removed and stored. They are most often found around the base of a spruce or hemlock tree.

#### Activity

Take the class on another field trip to the forest, leading them to the midden you have previously identified. Ask the students if they know what this pile of spruce cone litter is:

Who made this pile?

Why are there so many spruce cone parts?

Who has been here?

Provide information when it is needed during the following discussion about the pile of spruce parts. Some students may already know about squirrel middens being the “left-overs” after the squirrels have removed the spruce seeds for eating or storing for winter. Tell students about the squirrel's winter storage (pantry) and the kinds of food found stored there. Ask them to compare what a squirrel stores to what their family stores in the winter.

What kinds of food do you have stored in your pantry for the winter? In your freezer?



Midden



## Activity #2

### Haagú Kanals'áak Shí - Squirrel Song

Return to the classroom and listen to a Lingít song about a squirrel. (See Resources)  
After listening to it several times, sing the song with the children. Ask them to act like a squirrel bouncing its tail while singing.

## Activity #3

### Squirrel tail and pine cone

Use the squirrel pattern piece and pine cone coloring page included in the Resources, complete props – like the squirrel tail - to perform the squirrel song for family, friends or another classroom.



### Assessment

Listen for acquired information about squirrels, squirrel middens and winter storage of food.

Observe children singing and acting out the song, noting levels of participation and dramatic details that indicate comprehension of the song's meaning.

### Optional Extension Activity

Schedule time for children to go to the Forest Center to look at school library books about squirrels and listen to taped stories or poems about squirrels.

## Lesson 6

### Whose Home is This?

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#### Objectives

Students:

- Learn about the growth cycle of an eaglet.
- Learn to say Lingít words and phrases about eagles in nests

#### Time

45 minutes

#### Materials

- *Eaglet's World*, by Evelyn Minshull, published by Albert Whitman & Company
- Eagle Hat and Wing Patterns and Paper
- Construction Paper
- Scissors, glue
- Library books with illustrations of eagles



## Vocabulary

### Lingít

*ch'áak'*  
*ch'ak'yéis'*  
*ch'ak'yádi*  
*kút*  
*ch'áak' k'wát'i*  
*yaa ndakin*  
*kich als'inkw*  
*likóodzi*

### English

eagle  
young eagle (mottled)  
eaglet  
nest  
eagle's egg  
flying  
fledging  
wonderful

## Lingít Phrases

*Goosú wé (ch'áak')?*  
*ch'ak'yéis'*  
*ch'áak' yadí*  
*Yáadu wé (ch'áak').*  
*Yéi áwé!*

Where is the (eagle)?  
young eagle  
eaglet  
Here is the (eagle).  
That's right!

## Activities

### Activity #1

#### Listen to an eagle story

Read the book, *Eaglet's World* to the children. Talk about the bravery of the young eagle as he tried to get out of the egg, wait for food, and finally tried to fly. Ask the children if they have ever seen an eaglet. Have children share familiar eagle stories from their own lives or from what they have heard.

Ask an Elder to join in the conversation, telling a personal story or a traditional legend about an eagle.

As you read the story again, ask students to note the eagle, eaglet, egg, and nest to be found in the pictures.

### Activity #2

#### Make eagle hats

Using the patterns (see resources), students make paper eagle hats and wings to use to role play the eagles in the story. They can also make an eagle's nest to put in the Forest Center.

### Activity #3

#### Dramatize a story

Act out the story using the eagle hats and wings.



## Assessment

Listen to children's expressions of being frightened and brave. Can students talk about these human feelings? Do they recognize that animals seem to have similar feelings?

## Optional Extension Activity

Use the Lingít song CD to sing an eagle song. Use a drum and dance to the song.

## Reference Materials and Websites

*Eaglet's World*, by Evelyn Minshull, Albert Whitman & Company, 2002, ISBN 0-8075-8929-2.

## Lesson #7

### Find Tree Treasures at the Museum

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#### Objectives

Students:

- Experience and acquire information from a visit to a museum
- Learn museum behavior etiquette
- Practice using the Lingít words and phrases they have learned in a setting outside the classroom

#### Time

60 minutes

#### Materials

- Study Prints
- Museum Activity Sheet (1 per student)
- Pencils





## Lingít Phrases

(field trip) *Gax̄too.áat.* We are going on a field trip.  
*Woosh yáa kei ayagax̄tunéi.* We will be respectful.  
*A eetínaa ee yateéaa Kayshaxít.* Draw the missing part.

## Activities

### Activity #1 Field trip to the museum

Walk or take a bus to the Alaska State Museum. (Prior to this day make sure you have sent home permission slips and made arrangements with the museum, 465-2901). Gather students in the clan house on the first floor or in a central meeting place. Share pictures and/or artifacts that students can see and hold. Museum staff can explain some of the tools (canoe poles, fish clubs) and treasures like spruce root hats and baskets.

Ask students to generate questions about what they see and respectfully ask the museum staff their questions.

Find the eagle tree and ask students to recall what they know about eagles and the way they nest.

### Activity #2 Museum scavenger hunt activity

Introduce the museum activity page. (see resources) Explain to the students that it is their job to complete this activity to explore/find items in the museum that are used/made out of spruce trees. Tell students about the rules of behavior in a museum – no running, use quiet voices, look carefully, and treat everything with care.

After 15-20 minutes, gather students together in the meeting area. Ask them what they found, calling on individual children to discuss their findings.

## Assessment

Collect student's Spruce Tree Treasures Scavenger Hunt Activity Sheets. Review them to see if each student completed the form and correctly identified the items on the sheet.

## Optional Extension Activity

Invite family members to visit the class and share family treasures made from spruce trees to share.

Make a classroom display of treasures made from spruce trees.

Invite a scientist who works with trees to come in and talk to the class about his/her job and what happens with trees in the forests of Southeast Alaska.



## Lesson #8 Spruce Root Gathering

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### Objectives

Students:

- Learn the importance of thanking and showing respect for trees
- Learn how to gather spruce roots
- Understand the importance of the spruce tree to Tlingit people

### Time

45 minutes

### Materials

- Spruce Root Gathering Study Prints
- Root gathering tools
  - o pocket knife
  - o net picker or a tent stake puller
  - o plastic bag
  - o gardening gloves

### Vocabulary

#### Lingít

*xaat*

*éena*

*katsóowaa*

*gattulítáa*

*gwéil*

#### English

root

tongs

digging stick

pocket knife

bag

### Lingít Phrases

*(Field trip) gaxtoo.áat.*

*Xaat áyá kagaxtooháa.*

*Woosh yáa kei ayagaxtunéi.*

We're going on a field trip

We're going to dig spruce roots.

We'll be respectful.

### Activities

#### Activity #1

#### Learn about gathering and caring for spruce roots

#### Teacher Background Information:

Gathering roots is a fun, but hard and challenging job. According to Tlingit people, we must be respectful to the trees before we take their roots. We need to thank them for their use. Roots are used traditionally by Tlingit people to make baskets, hats, rope and for lashing tools together.



## Activity

Plan a half day field trip to gather spruce roots. Invite several parents and an Elder/Culture Bearer to join the class on this trip. Before you go, use the study prints to explain to the students the steps of gathering roots so they are familiar with the process prior to the field trip.

Find a healthy spruce tree in a nearby location. Look for healthy spruce trees that are growing in a sandy area – they are the best for getting the roots.

Near the outer edge of the branches carefully dig a few inches down into the moss or dirt to look for pencil sized, reddish colored roots. Make sure the area isn't rocky. Roots found in a rocky area will be crooked and unsuitable for weaving. Carefully dig and pull the roots from the ground. Try not to break the outer bark. Long roots are desirable. Run your gloved hand gently down the root to remove tiny root hairs and dirt. Place roots in a plastic bag. The roots need to stay moist.

Now build a fire. Have a roasting stick and de-barking stick ready (*Éénaa* - Two tongs laced together that the roots are pulled through to remove the outer bark.) Roast the roots in an open fire until they sizzle. Remove the roots. The roots look like burnt marshmallow.

Quickly untie root and run them through the *éénaa* to remove the outer bark tool. The outer bark comes off the root like pulling off the burnt part of a marshmallow. Wash roots in rainwater. Split the roots in half, lengthwise.

## Activity #2

### Guest weaver visit

Invite a local weaver to visit the class to demonstrate root splitting and weaving. Before she/he arrives ask the children what they would like to learn about using spruce roots to weave. Record their questions on a big sheet of paper or the chalkboard and leave it posted during the weaver's visit.

### Assessment

Observe student interacting with the guest weaver. Do they ask appropriate questions? Do they know the names of the tools she is using?

## Lesson # 9

### Tlingit Band Aids

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#### Objectives

Students:

- Learn the Tlingit way to make a band-aid, by using spruce pitch, spruce roots and leaves.

#### Time

45 - 60 minutes



## Materials

- Metal spoon
- Small barbeque
- Fire wood
- Matches
- Leaves
- Water
- Bowls
- Spruce roots
- Chart paper
- Marker
- Large Clam or Cockle Shell
- Electric hot plate



## Vocabulary

### Lingít

*aas k'óox'u*

*shál*

*gán*

*uxgankáas'*

*x'aan*

*héen*

*kayaaní*

*xaat*

### English

pitch

spoon

firewood

matches

fire

water

leaves

spruce roots

## Lingít Phrases

(field trip) *gaxtoo.áat.*

*Gunalchéesh shéiyi.*

We're going on a field trip.

Thank you spruce tree.

## Activities

### Activity #1

#### Learning how Tlingit band aids were made

Prior to this lesson collect pitch from a near by spruce tree and a leaf from an alder tree. Ask students what they've learned about spruce trees. Make a list of what they know.

**Ask the children:** "Did you know that Tlingit people make medicine from the pitch of the spruce tree? How do you think it was done?"

I'm going to show you how Tlingit band aids are made."

#### Demonstrate to the class:

1. You must take a knife or spoon and remove the pitch from the tree. (Gather before class.)



2. Thank the tree for providing you with the pitch that is going to help you make a band aid. You might say, "*Gunalchéesh shéiyi.*" or, "*Gunalchéesh shéiyi, I'm going to make a band aid out of what you have given me.*"
3. Put the pitch in a sea shell or keep it on the spoon and place it near the edge of the fire (or on an electric hot plate, if you cannot be outside near a fire). We'll watch the pitch liquefy.

What does it mean when something liquefies?

4. Using an oven mitt remove the spoon from the hot plate.
5. Place the liquefied pitch on a clean leaf.
6. After the pitch has cooled down (about 2-3 minutes) place the leaf on one student's arm. The pitch will be against the skin.
7. Ask the students:

What should we do to keep the band aid in place?

If you get a cut how does your band aid stay on?

Is there something that the spruce tree provides that we can use as a tie?

8. We're going to use this piece of string to tie the band aid into place. During traditional times we would have used spruce roots to tie the band aid in place.

Ask students to list the steps of making the band aid. Write the steps on chart paper.

9. Explain that the class will be going into the forest to make band aids.

## **Activity #2**

### **Field trip to make Tlingit band aids**

Take an outdoor field trip to a familiar forest area and to a nearby location where you can start and maintain a fire. Prior to the field trip have a volunteer parent start a small fire in barbeque at the location of the field trip. Talk with the class about field trip rules and proper behavior when you are near a fire.

Take students on a field trip to the spruce tree forest they learned, explored and named in Lesson #3. They will use their spoon, thank the tree, and put a small amount of pitch from the tree on their spoon. At the same time have each child gather a leaf and hold onto it. Have an adult put the spoon around the fire. As a class, watch the spoons full of pitch liquefy. See how long it takes. Then have children gather and wash their leaves and cut a piece of string or soak spruce root in water.

Have an adult to remove the spoons from the fire and place the pitch on the clean leaf. Let the leaf cool. Using the spruce root tie the band-aid onto a pretend wound.

As you are talking about how they were made, reinforce the importance of being respectful to living things - an important traditional tribal value.



## Assessment

Observe the student participation in band aid making. Did they successfully make a Tlingit Band Aid? Did they follow directions? Did they cooperate with classmates in the process?

## Optional Extension Activity

Ask students to talk to their parents and grandparents or aunts/uncles to see if they ever made Tlingit band aids or if they ever heard of them. Record any stories that students share from their families.

