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).

Lessons and units were written by a team of teachers and specialists led by Nancy Douglas, Elementary Cultural Curriculum Coordinator, Juneau School District. The team included Juneau teachers Kitty Eddy, Shgen George, Kathy Nelson, Hans Chester and Rocky Eddy, and SHI language team members Linda Belarde, Yanow Vaara, David Katzeek, John Marks, Mary Foletti, Rose Natkong and Jessica Chester. Curriculum consultants Julie Folta and Toni Mallott assisted and Annie Calkins edited the lessons and units.

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

All units are available online at sealaskaheritage.org.
Hemlock Tree Parts

Yán
Hemlock Parts Cards

Yán
Hemlock Tree

Gi’taa
Needle

A’łani
Branch
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You can shake hands with a Hemlock tree.
Make a forest center in your classroom.
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Hemlock Trees Around Our School

Work cooperatively with your partner to complete this job.
1. Find Hemlock trees. You can shake their branches. They are soft.
2. Count the hemlock tree around your school
3. Make a tally to represent each of the trees you count.
4. Write the number.

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Tallies</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hemlock</td>
<td>When you shake hands with the hemlock tree it soft to the touch.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Explore a Hemlock Tree

Draw a picture of a hemlock tree.
1. Find a Hemlock tree.
2. Draw your Spruce tree.
3. Remember to include:
   - A a s k ' e y i – trunk
   - A t'á n i – branches
   - G í t g á a – needles
   - A t l o o n í – bark
   - S'óo s'á n í – cone
Branch Exploration

Explore the branch of a Hemlock tree.
1. Draw a branch.
2. Include the following:
   • A' t'á ní – branch
   • Gít gaa – needle
Cone Exploration

How Many Cones Are on the Branch of a Hemlock Tree?
1. Find a Hemlock branch with cones
2. Place a ring on the branch. Make a tally for each of the cones in the area of the ring.

Cone Tally

There were ____________ cones on my branch.
Bark Exploration

Explore the bark of the Hemlock tree.
1. Touch, Feel, and Look at the bark
2. Make a rubbing.
   a. Place this page on trunk.
   b. Hold page in place and color firmly with a crayon.
Hemlock Tree Circumference

1. Measure the circumference of a Hemlock tree.
   a. Have a partner hold one end of the string.
   b. Walk around the tree with the string.
   c. With your pencil or crayon mark the string where the ends meet.
   d. Lay string on a flat surface and measure using links, tiles or rulers.

<table>
<thead>
<tr>
<th>Units Used</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

Note to teacher:
Attach bag with measuring string.
Yí:í – Hemlock Unit
Lesson 3 – Activity #1

Scientist ____________________________

1. Color hemlock cone brown.
2. Cut out cone and seeds
3. Fold cone on the centerfold line.
4. Cut the 4 solid lines.
5. Fold on side fold lines
6. Cut on the 3 solid lines on each side.
7. Glue seeds to the circles on page 2 of this activity.
8. Put a small drop of glue on the x’s
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Scientists can determine a tree's age by counting the growth rings.

1. Put an X and make a tally for each ring you count.

2. This tree was ____________ year old before it was cut down.
Making Tree Cookie Play Dough or Cookies

1

2

3

4

5

6
It’s A Rotten Home for Me

Script

Storyteller: Deep, deep in the forest, a huge hemlock tree was swaying in the wind, its branches moving like giant arms, its trunk held fast by roots deep in the soil. It was a very old hemlock tree that had lived through many seasons.

Season Chanters: Spring, summer, fall winter; spring summer fall winter, spring, summer, fall, winter, spring, summer, fall, winter

Storyteller: But as the wind blew stronger and stronger…..

Wind Blowers: Woooo-ooooo-oooo

Storyteller: …and the rain lashed against the tree,…..

Rain Tappers: (with fingers tapping on desks or tables), Tap, tap, tap, tap

Storyteller: …the old hemlock cracked and with a thunderous crash, fell to the forest floor. And it looked like this:

(Storyteller opens the front flap of the box to see a new chunk of wood or a picture of new wood. Then the flap is closed.)

Storyteller: The old hemlock lay on the forest floor for many seasons.

Season Chanters: Spring, summer, fall winter, spring, summer, fall winter, Spring, summer, fall winter

Storyteller: The rain fell.

Rain Tappers: Tap, tap, tap, tap

Storyteller: The wind blew.

Wind Blowers: Woooo-ooooo-oooo

Storyteller: The snow fell.

Snowflakes: (Rubbing fingers lightly together)

Storyteller: A small mouse made a nest in a hollow part of the tree’s trunk. Moss and lichens began to grow along the log. And it looked like this:

(Storyteller opens the box flap to reveal a moss-covered chunk of wood or a picture of a moss-covered chunk of wood)

Storyteller: Many seasons passed.

Season Chanters: Spring, summer, fall, winter, spring, summer, fall, winter, spring, summer, fall winter, spring, spring, summer, fall winter
Storyteller: The rain fell.
Rain Tappers: Tap, tap, tap, tap

Storyteller: The wind blew.

Wind Blowers: Woooo-wooo-wooo

Storyteller: The snow fell.

Snowflakes: (fingers gently rubbing together)

Storyteller: Mushrooms and fungus began to grow on the tree. The bark began to fall off and the wood began to change – to get soft and punky. And it looked like this:

(Storyteller opens the box flap to reveal a log chunk that has a tree fungus and punky, soft wood, then closes the flap.)

Storyteller: A squirrel hid a hemlock cone in the punky soil for winter food. Seeds lay inside the cone, waiting for spring. Snow covered the old tree. The rain fell.
Rain Tappers: Tap, tap, tap, tap

Storyteller: The wind blew.

Wind Blowers: Woooo-wooo-wooo

Storyteller: The snow fell.

Snowflakes: (Rubbing fingers gently together)

Storyteller: And the seasons changed.

Season Chanters: Spring, summer, fall, winter, spring, summer, fall, winter, spring, summer, fall, winter, spring, summer, fall, winter

Storyteller: The old hemlock sheltered a new seedling that looked like this:

(The storyteller opens the box flap to reveal a new hemlock seedling growing in the soil)

Storyteller: And the seasons passed.

Season Chanters: Spring, summer, fall, winter, spring, summer, fall, winter, spring, summer, fall, winter, spring, summer, fall, winter, spring, summer, fall, winter
Exploring A Rotting Log

I saw:

☐ Insects
☐ Moss
☐ Lichen
☐ Mushrooms
☐ Worms
☐ ______________________
☐ ______________________
☐ ______________________
☐ ______________________

Here's a drawing of my favorite creepy crawly thing.
Yées wudulixáshígán

Fresh cut log

Decomposition
Stage 1
Aas daas'ix'gaa
Wood with moss

Decomposition
Stage 2
Aasdaa s'ëixwani
Wood with lichen

Decomposition
Stage 3
W u d i n a k w
Rotting log

Decomposition
Stage 4
Yíyí – Hemlock Unit
Lesson 6 – Activity #1

Gándaágóogu
woodpecker

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Name ____________________________

Fold and cut along line.

Fold, cut and glue tips.

Fold

Fold

Fold

Fold
Yän – Hemlock Unit  
Lesson 6 – Activity #2

Gandaadagóogu Daa Sheeyí  
Woodpecker Love Song

Haa gó gandaadagóogu. A koonishka laagéi  
Haa gó gandaadagóogu. A koonishka laagéi

Tap finger on a piece of wood – imitating the woodpecker tapping on a tree looking for food.
Tap, tap, tap, tap, tap, tap
Tap, tap, tap, tap, tap, tap

Inxirán, inxirán kunák  
Inxirán, inxirán kunák

Tap finger on a piece of wood – imitating the woodpecker tapping on a tree looking for food.
Tap, tap, tap, tap, tap, tap
Tap, tap, tap, tap, tap, tap

Yáat’aa asgutuyisháa, yáat’aa asgutuyisháa  
Yáat’aa asgutuyisháa, yáat’aa asgutuyisháa

Tap finger on a piece of wood – imitating the woodpecker tapping on a tree looking for food.
Tap, tap, tap, tap, tap, tap
Tap, tap, tap, tap, tap, tap
Label the mosquito’s life cycle.

- **X'íx** – egg
- **tlúk’x** – wiggler
- **táax’aa yádi daa kanóox’u** – pupa
- **lÁax’aa** – adult mosquito
Mosquito Model Directions

Materials needed to make a mosquito model
- Mosquito model pattern pieces
- ½ Red pipe cleaner
- 1 Tan pipe cleaner
- ½ Clear straw
- Hologram wrapping paper (eyes)
- 12 Q-tip tips
- Glue
- Hole punch
- Clothes pins

Head
- Glue compound eyes onto the oval head piece
- Glue straw and 2 antennae between 2 oval headpieces. Let dry.

Thorax
- Glue the 6 legs and 2 wings onto the thorax piece.

Abdomen
- Glue 12 Q-tips and 1 red pipe cleaner onto the abdomen piece.
- Make 5 holes through both abdomen pieces (breathing spiracles).

Assemble Mosquito
- Glue head to thorax.
- Glue head and thorax to the abdomen.
- Use clothes pins to keep parts together
- Let dry.

Song
- Sing this song as students work on their project.

Head, Thorax, Abdomen, Abdomen Song
Head, thorax, abdomen, abdomen
Head, thorax, abdomen, abdomen
Six legs, two antennae, compound eyes
Head, thorax, abdomen, abdomen
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Cannibal Giant Note Card

1. Enlarge note card to fit 8.5” x 11” paper.
2. Write your favorite part of the Cannibal Giant Legend on the reverse side.
3. Fold note
4. Address and send home to share with families.
### Tlingit components

#### Lesson 1

**Vocabulary**

1. hemlock | yén
2. branches | a t'áni
3. bark | at loon
4. cone | s'ós'áni
5. trunk | a s k'éeyi
6. needles | s'óos'áni
7. root | gít
gaa
8. pitch | a s k'óo x'
9. hemlock seeds | yán x'aakeidí

**Phrases**

10. We're going to the forest. | As gutúdei gaxtoo áat.
11. We will be respectful. | K'aa yáa kei ayaga at xoonéi.
13. What do you feel? | D'a a sá jee l'dínúk?
14. Is it bumpy? | S'aa jatsix' gé?
15. Is it sharp? | Ya kats' gé?
16. Is it pointy? | Alú gé yáwát'?
17. Is it rough? | Kasix'áx' gé?
18. You have a (cone). | (S'ós's'áni) jeewú.
19. Where is the (needles)? | Goosú wé (gít gaa)?

#### Lesson 2

**Vocabulary**

20. observed | dultin
21. measured | xaaka
22. picture/rubbing | yaháayi
23. book/journal | x'

**Phrases**

24. Here is a hemlock tree. | Yaadoo yán.
25. Here are the (needles). | Yaadoo (gít gaa).
26. Here is the (cone). | Yaadoo (s'ós's'áni).
27. Here is the (bark). | Yaadoo (at loon).
28. Here is the (branches). | Yaadoo (a t'áni).
29. Here is the (pitch). | Yaadoo (a s k'éeyi).
30. Here is the (trunk). | Yaadoo (aas k'óo x').
31. Here is the (root). | Yaadoo (aat).

#### Lesson 3

**Vocabulary**

32. hemlock seeds | yán x'aakeidí
33. tree cookie | aas dáa láadlí

**Phrases**

34. How old is the (hemlock tree)? | X'oon táakw sáwé (yán)?
35. Let's count the rings. | Na x too.toow yaa (aas kutáagu).
36. This tree is (ten) years old. | Jímkaat táakw épé ya aas akatáagu.
37. How do seeds grow? | Wí a s sáj'náx'í ní ni wé at x'aakeidí?
38. Where are the (hemlock seeds)? | Gossú wé (yán s'áakeidí)?
39. How many (seeds) are there? | X'oon sá yáate wé (at x'áakeidí)?

#### Lesson 4

**Vocabulary**

40. spring | táakw eeri
41. summer | k'utaan
42. fall | yeís
43. winter | táakw
44. rain | séew

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Here is a beetle, Yáat'aa asguyisháa, here is a beetle.

Lesson 7
Vocabulary
81. paper x’úx’
82. wooden frame a tuxaagí
83. washing tub k’aakané
84. sponge teet x’acháll

Phrases
85. Let’s make paper. X’úx’ yei naatusanéi.
86. Tear up newspaper. Kyees’il’wé x’úx’.
88. Mix together. Shaklawus’.

Lesson 8
Vocabulary
89. mosquito life cycle táax’aa x’usteeyí
90. egg x’íx’
91. hatch a tooná yei duwanát tl’úk’
92. wiggler (larva) táax’aa yádi daakanoox’u táax’aa
93. pupa/cocoon
94. adult mosquito

Phrases
95. Mosquitoes lay eggs on water. Táax’aa has du x’íx’i héen toox’ eel’éex’.
96. The eggs hatch. Wé x’íx’ tooná yoo x’aat.
97. The eggs grow into wigglers. Wé x’íx’ tl’úk’ sateex’.
98. Wigglers become pupas. Wé tl’úk’ táax’aa yádi daakanoox’u sateex’.

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