



K'áang Hemlock

Grade Levels K-2

Teacher Resources

A series of elementary level thematic units featuring Haida language, culture and history were developed in Ketchikan and Hydaburg, Alaska in 2004-6. The project was funded by the U.S. Department of Education, Haida Language Immersion Program - Boosting Academic Achievement grant #S356A030046, awarded to the Sealaska Heritage Institute.

Lessons and units were written by a team including Jordan Lachler, project director and linguist specializing in documenting and revitalizing Native American languages. Lachler heads up the local field office of the Sealaska Heritage Institute in Ketchikan. Cheryl Holter (T'áaw Kúns) grew up in Hydaburg, raised by her grandparents, Willis and Hazel Bell and has worked with the remaining fluent Haida Elders for years. She taught the Haida language to students since returning to Hydaburg in 1990. Linda Schrack (Skil Jáadei) grew up in Ketchikan, spending a great deal of time with her grandparents, Robert and Nora Cogo. She worked for many years in the field of early childhood education, and is an accomplished Native artist and traditional Haida dance group leader. Julie Folta, a cultural curriculum specialist with years of experience developing and teaching thematic, child-centered curriculum in rural Alaska also contributed to lessons and Annie Calkins edited final drafts of the units.

All units are available online at sealaskaheritage.org.



Sealaska Heritage Institute

The contents of this curriculum were developed under the Haida Language Immersion Program: Boosting Academic Achievement (2005) grant from the U.S. Department of Education. However, the contents do not necessarily represent the policy of the Dept. of Education and you should not assume endorsement by the Federal Government

Hemlock Tree Parts

Hemlock Parts Cards



K'áang
Hemlock Tree



K'áang sk'a'ii
Needle



Tláas
Branch



K'áang hlúu
Trunk



K'áang k'uj
Bark



K'áang hlíing
Root



Stl'áas k'ámaal
Cone



K'áang
Hemlock Tree



K'áang sk'a'ii
Needle



Tláas
Branches



K'áang hlúu
Hemlock Trunk



K'áang k'uj
Hemlock Bark



K'áang hliing
Hemlock Root



Stl'áas k'ámaal
Cone



You can shake hands with a Hemlock tree.

Scientist _____

Exploring Hemlock Trees



Tools needed to complete this job.


- Clipboard
- Pencil
- Crayons: brown, dark green, light green
- String
- Links, tiles or rulers
- Ring Toss Rings

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.

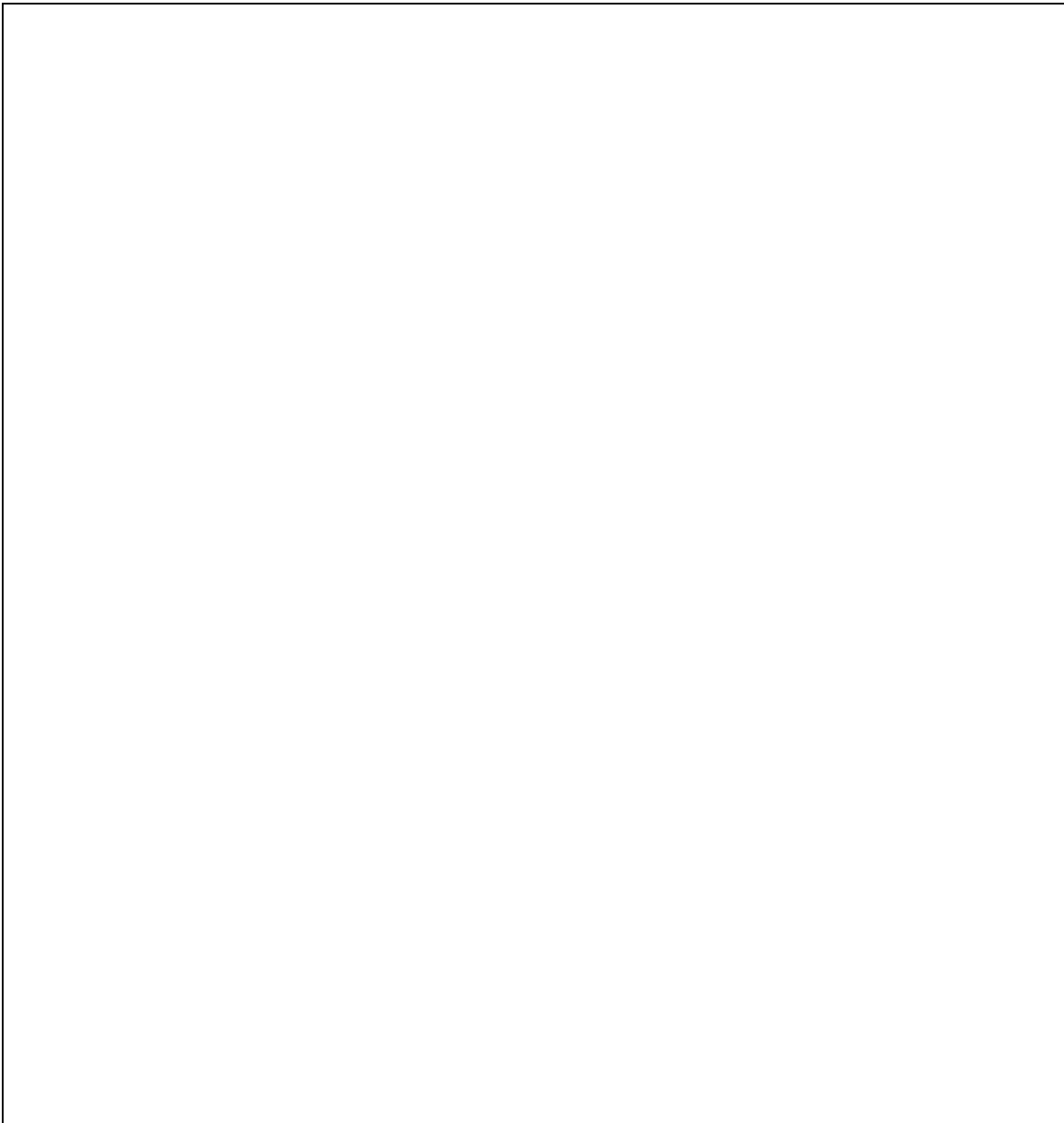
Data Table

Type	Description	Tallies	Number
 <p data-bbox="396 968 522 1035"><i>K'áang</i> Hemlock</p>	When you shake hands with the hemlock tree it soft to the touch.		

Explore a Hemlock Tree

Draw a picture of a hemlock tree.

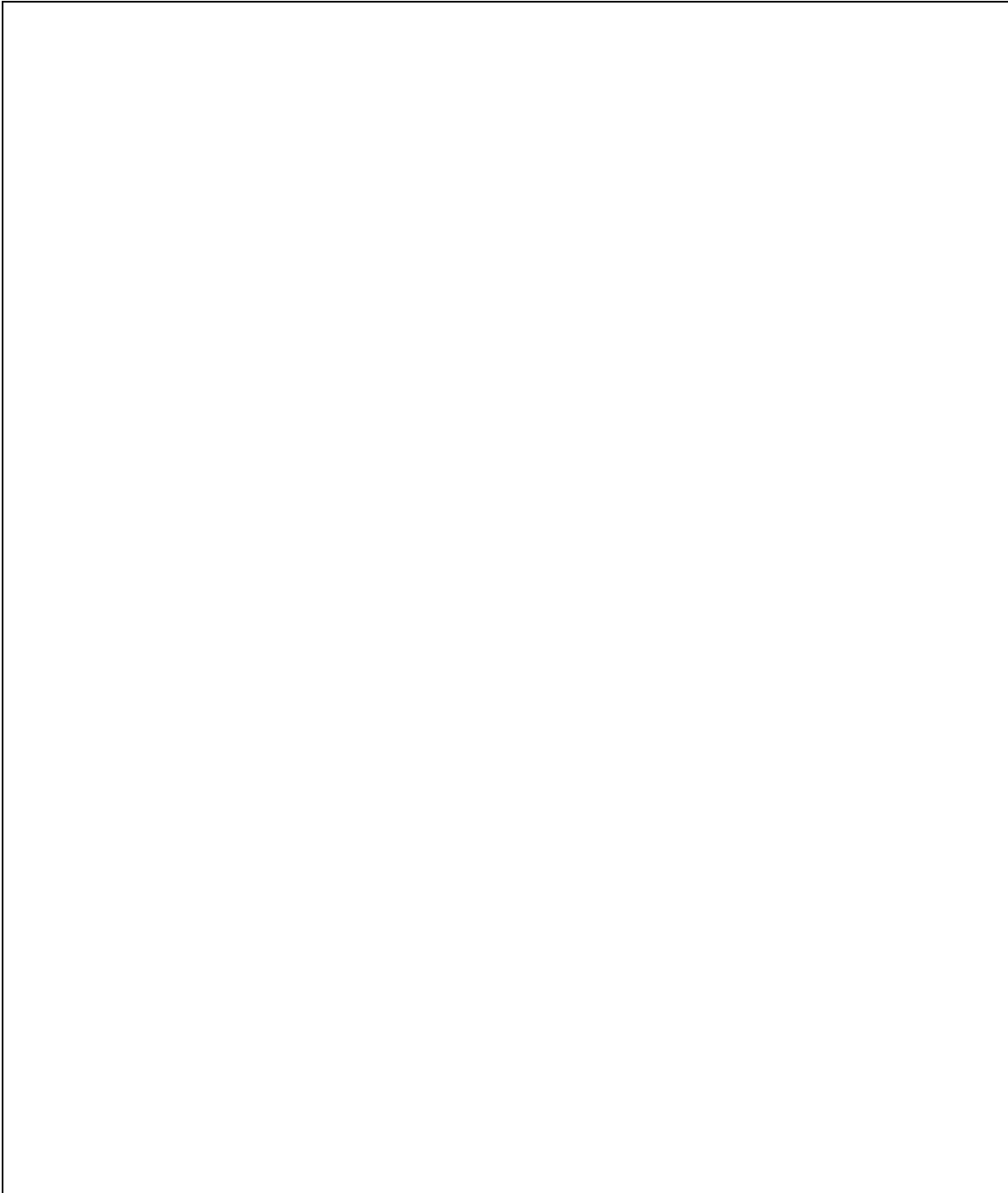
1. Find a Hemlock tree.
2. Draw your Spruce tree.
3. Remember to include:
 - *K'áang hlúu* – hemlock trunk
 - *Tláas* – branches
 - *K'áang sk'a'íi* – hemlock needles
 - *K'áang k'uj* – hemlock bark
 - *Stl'áas k'ámaal* – cone



Branch Exploration

Explore the branch of a Hemlock tree.

1. Draw a branch.
2. Include the following:
 - *Tláas* – branch
 - *K'áang sk'a'ii* – hemlock 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

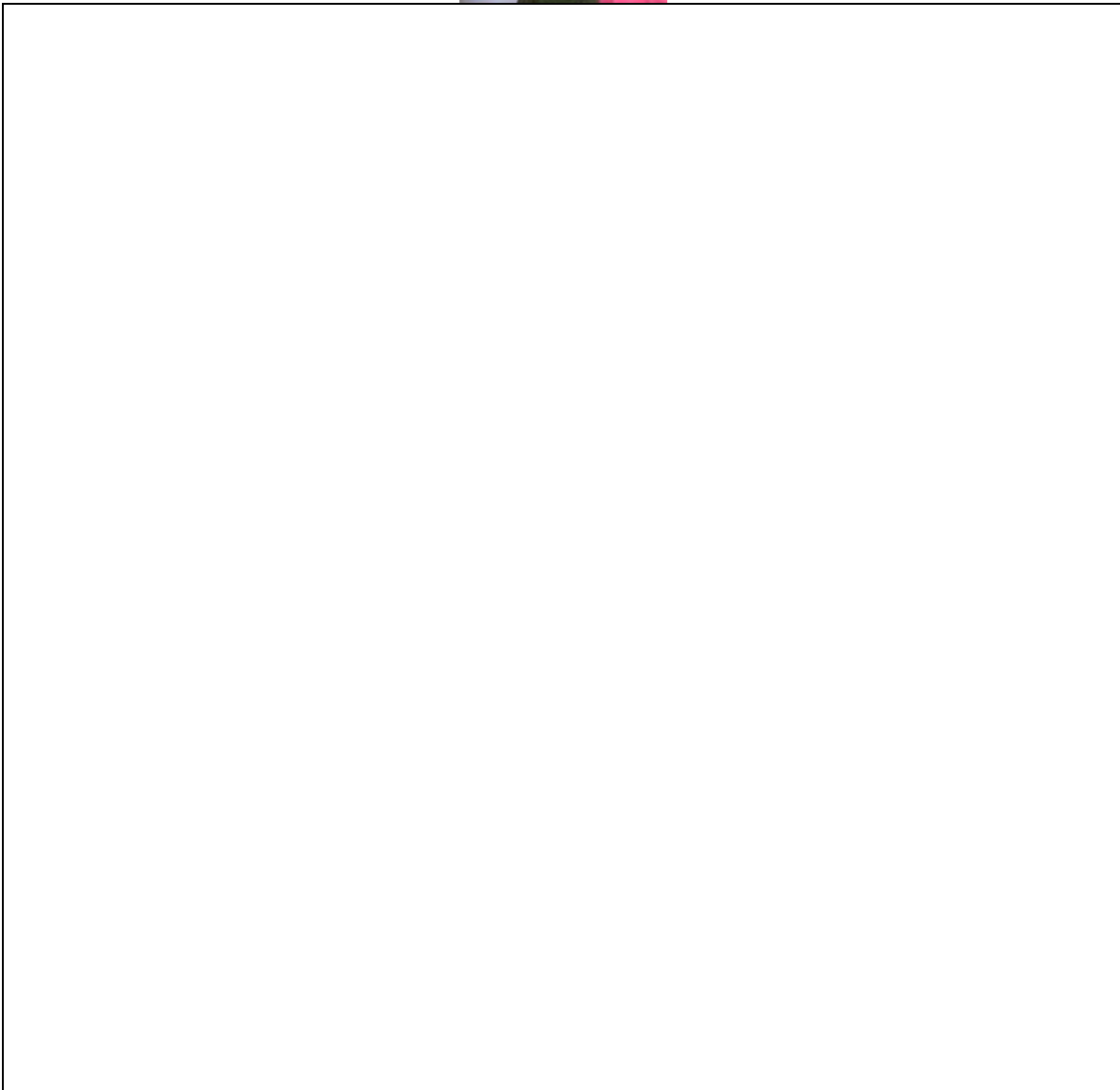


There were _____ cones on my branch.

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.



Units Used	Number

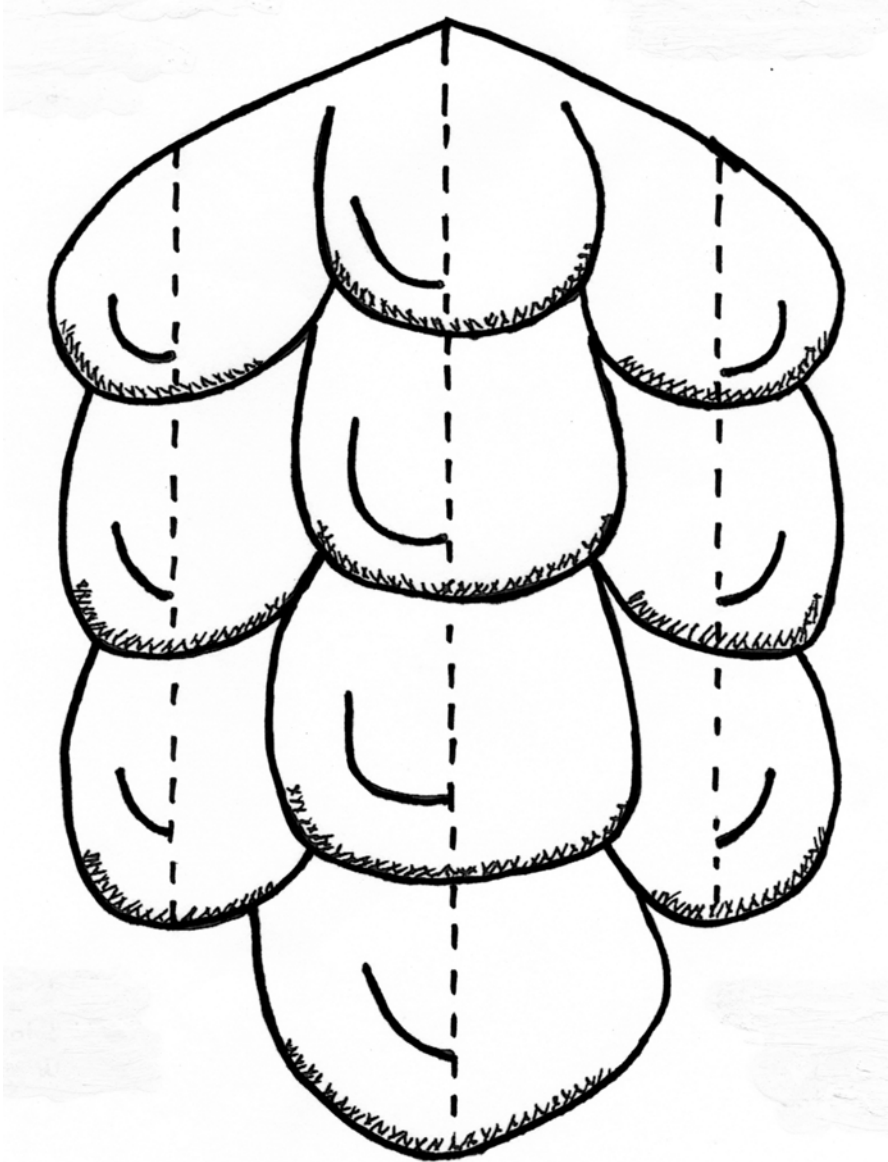
Note to teacher:

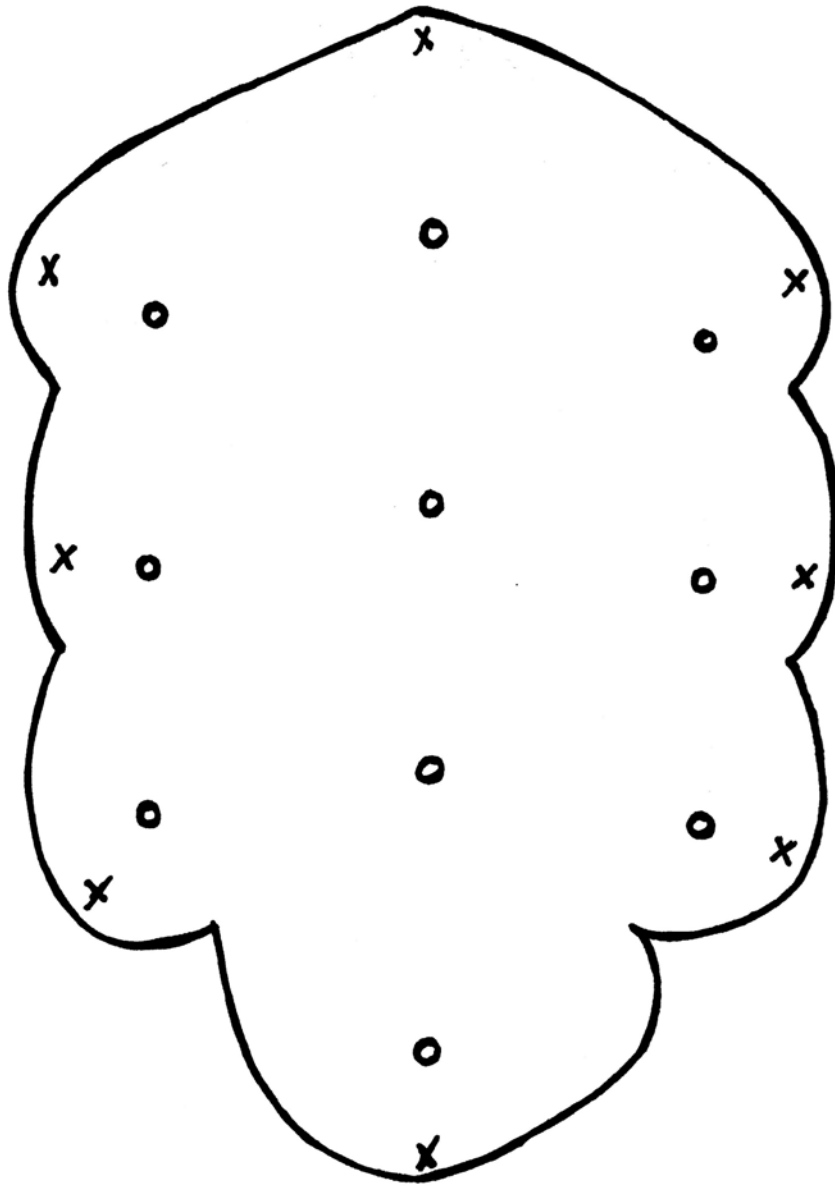
Attach bag with measuring string.

Scientist _____

Giant Hemlock Cone

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

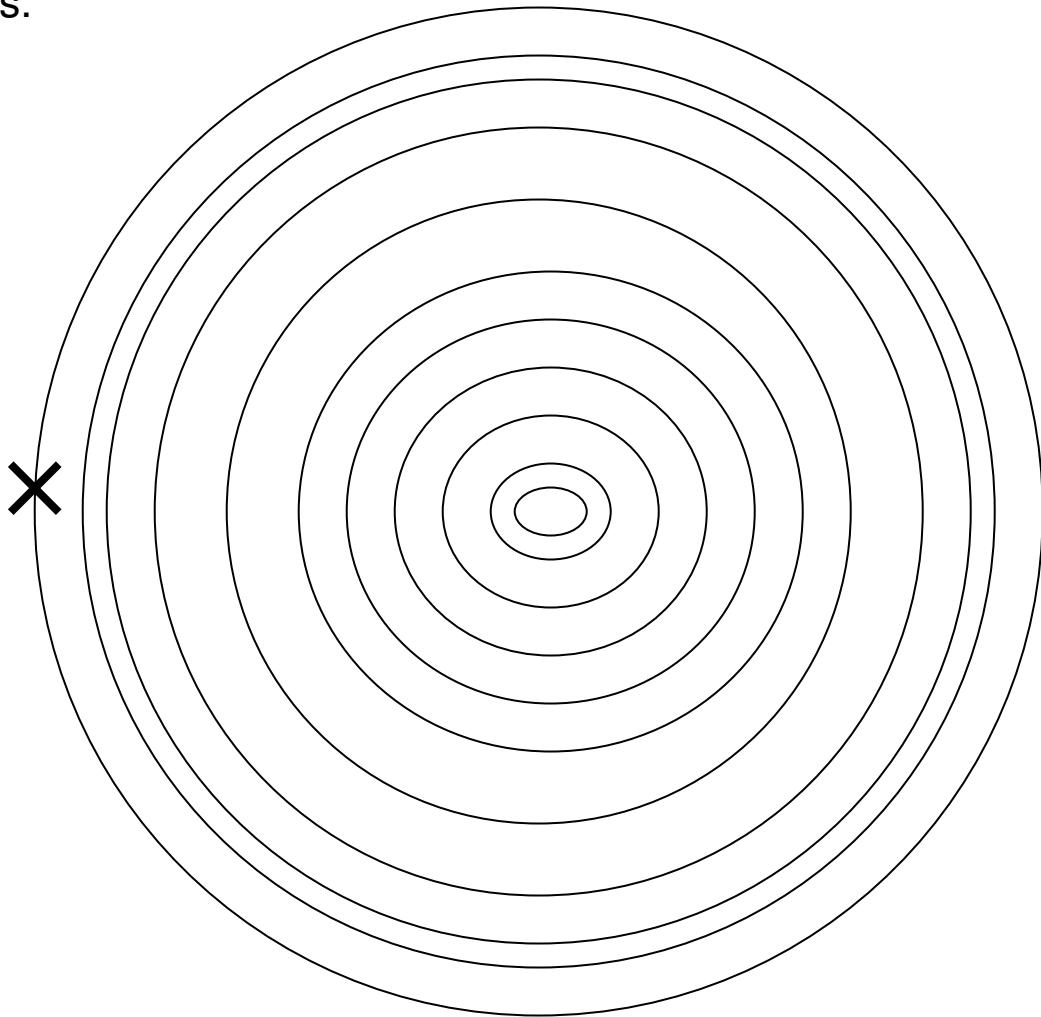




Scientist _____

Tree Cookie Activity

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



Name _____

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: Wooooo-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: Wooooo-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, summer, fall winter

Storyteller: The rain fell.

Rain Tappers: Tap, tap, tap, tap

Storyteller: The wind blew.

Wind Blowers: Wooo-oooo-oooo

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

Scientist _____

Exploring A Rotting Log



I saw:

- Insects
- Moss
- Lichen
- Mushrooms
- Worms
- _____
- _____
- _____

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

A large, empty rectangular box with a black border, intended for a student to draw a "favorite creepy crawly thing" as mentioned in the text above it.

Fresh cut log



Decomposition
Stage 1

Wood with moss



Decomposition
Stage 2

Wood with lichen



Decomposition
Stage 3

Rotting log



**Decomposition
Stage 4**

Scientist _____

Exploring A Rotting Log



I saw:

- Insects
- Moss
- Lichen
- Mushrooms
- Worms
- _____
- _____
- _____

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

Scientist _____

Stl'i'ílt'agwaang Xíinangaa

Mosquito Life Cycle



Label the mosquito's life cycle.

káw	egg
gándl ts'úujuudgaa	wiggler
stl'i'ílt'agwaang gíit'ii	pupa
stl'i'ít'agwaang	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

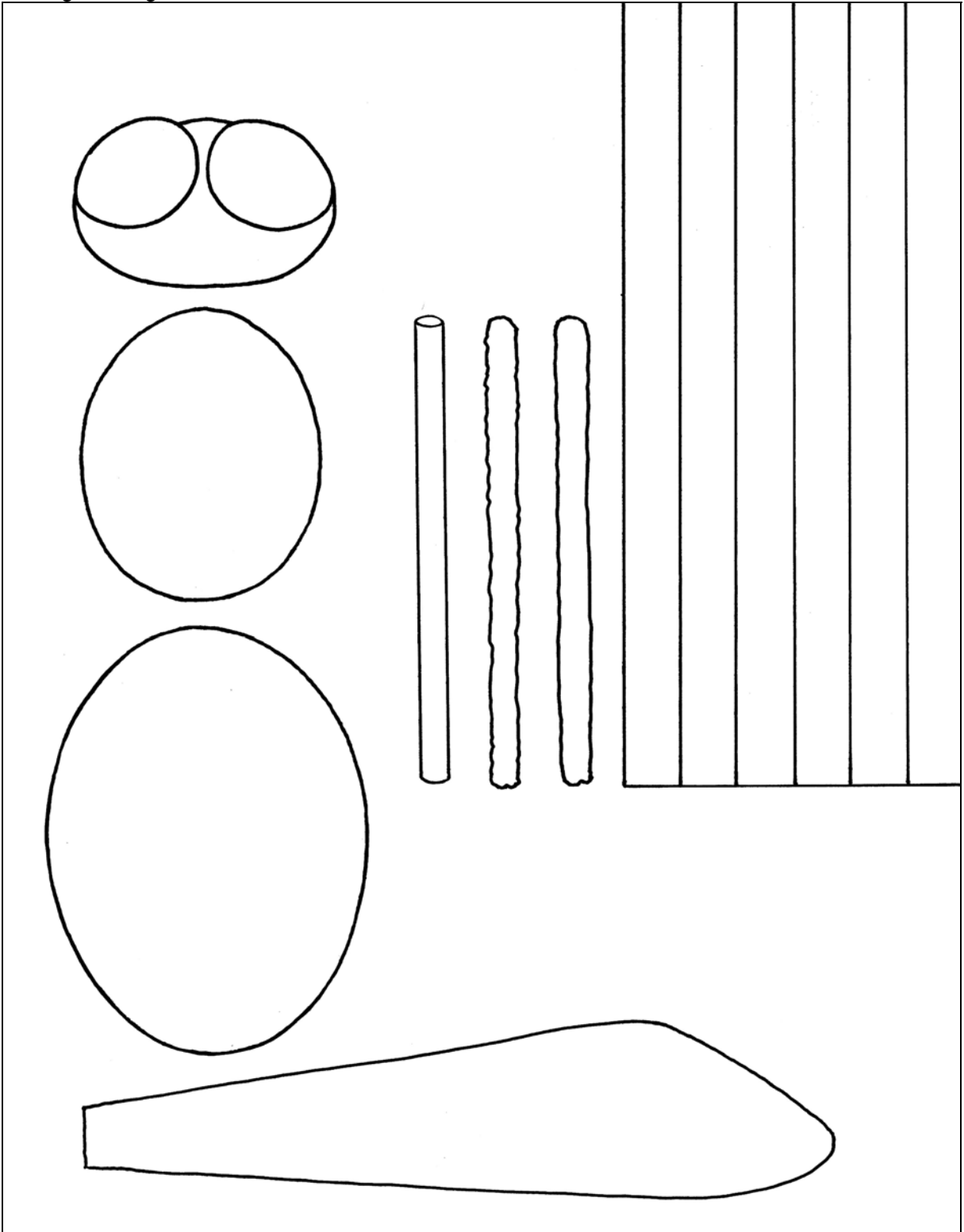
Head, thorax, abdomen, abdomen

Six legs, two antennae, compound eyes

Head, thorax, abdomen, abdomen

Mosquito Model

Enlarge to legal.



Name _____

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.

