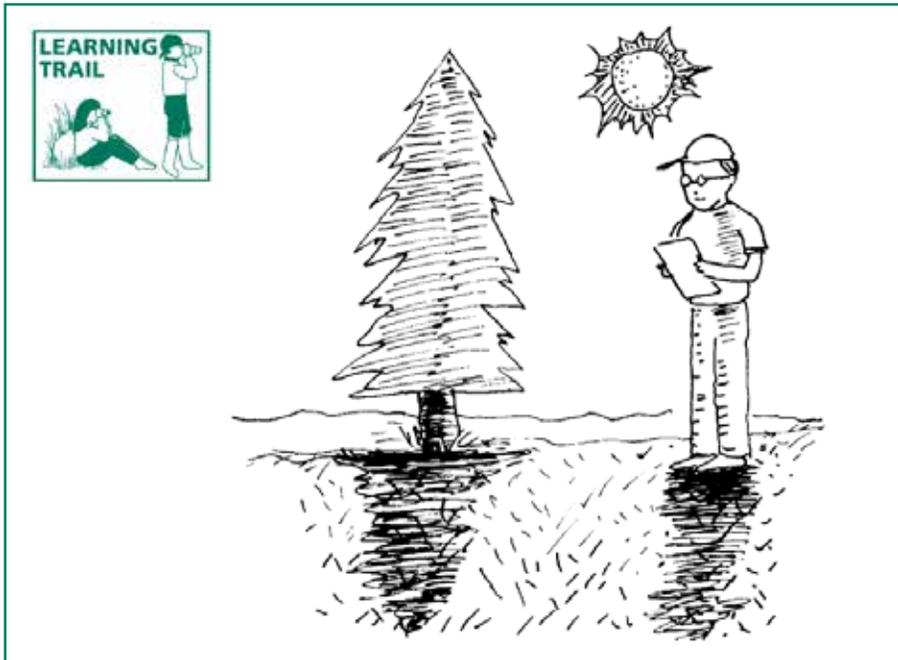


# The Forest Learning Trail: HOW TO SET UP STATIONS

## Section 3 FOREST ACTIVITIES



**Grade Level:** K - 12

**State Standards:** S A-14, S A-15, S B-1, Geo E-5, A A-1

**Subjects:** Language arts, social studies, science, math, art

**Skills:** Write, read, speak, listen, compare, concentrate, count, draw, estimate, follow instructions, identify, imagine, infer, measure, observe, paint, predict, sensory awareness, work together, value clarification

**Duration:** Periodic, half day, or full day

**Group Size:** Small groups, several classes at a time, pairs, individuals, whole class

**Setting:** Outdoors

### Objectives:

Students will reinforce and expand their knowledge of the forest ecosystem.

### Teaching Strategy:

The Forest Learning Trail uses some or all of the 20 cross-curriculum, hands-on student-directed activities in a forest environment.

### Materials:

Clipboards and writing paper or field note books, pencils or pens. Copies of each activity's "Science Card(s)" giving students directions to follow and questions to answer.

Note: Wear clothing suitable to your area.

### Trail Setup:

*IN ADVANCE*, set up a *Forest Learning Trail* with several other teachers or individually in an area accessible to your school. Several classes can use the same *Forest Learning Trail*, so it only needs to be set up once.

Place learning stations in sets of 3-4. Divide your class into small groups. In this way, one leader can monitor

the activities of 3-4 student groups at one time. Encourage parents and others in your community to attend, participate as leaders, and share their knowledge of the forest with students.

### Trail Stations:

Each of the trail's 20 activities has a description to help you select and set up the site (3 activities have 2 stations each to compare and contrast forested and non-forested sites).

Copy the "SCIENCE CARDS." These can be given directly to students or placed at the stations for students to follow.

You may choose to include all the cards at once for a half-day or day-long trail, or use different groups of cards to set up different trails for use on separate days. You can also select those activities most relevant to your forest study or those most usable with your students.

Many other trail activities can be found in sections noted with this Trail Marker.



## Tips for Success

### ***Before hitting the trail:***

Prepare the students' for a successful experience by using first two of the following activities. ***"Forest Bird Song Tag"*** will help use excess energy and calm students enough to pay attention along the trail. ***"Sensing Forest Mysteries"*** will help students focus on discovering the forest.

### ***Keeping warm on the trail:***

Consider planning an active game at the start, middle, and end of the trail to help students stay warm and interested. Tie any game into the forest by naming the teams using forest terms, forest wildlife, or ecosystem concepts.

### ***After the Learning Trail:***

"Forest Sharing" station ends the trail. The entire class gathers to share impressions of the forest. The "Classroom Follow-Up" section of each activity suggests things to do once students are back in the classroom.



# Forest Learning Trail Activities

List and Objectives of Forest Learning Trail Activities

Note: some activities follow, others can be found in Sections 1, 2, 4, and 5.

<b>Section #</b>	<b>Activity Name</b>	<b>Learning Objective</b>
3	<b><i>Forest Bird Song Tag</i></b>	Students will practice listening skills and learn to recognize the songs of forest birds common in their area.
3	<b><i>Sensing Forest Mysteries</i></b>	Students will use their senses of hearing, seeing, smelling, and touch while identifying items from the forest.
3	<b><i>Forest Views</i></b>	Students will write about a forest ecosystem from the perspective of an indigenous animal.
3	<b><i>Forest Art</i></b>	Students will observe and reproduce colors found in a forest environment.
3	<b><i>Forest Sounds</i></b>	Students will listen for and map forest sounds.
3	<b><i>Nosing About</i></b>	Students will use their sense of smell to identify a variety of items found in a forest ecosystem.
1	<b><i>Forests and Air</i></b>	After conducting an identical set of experiments in forested and non-forested sites, students will compare and contrast the results.
1	<b><i>Tree Identification</i></b>	Students will identify and illustrate characteristics of various Alaska trees.
1	<b><i>Tree Trunks</i></b>	Students will use a cross-section of a tree trunk to identify the function of the tree rings and infer environmental conditions that affected the growth rate of the specimen.
2	<b><i>Fungi</i></b>	Students will identify and describe forest fungi.
2	<b><i>Detritivores</i></b>	Students will identify, categorize, and compare detritivores based on the type of food they eat.
2	<b><i>Insect Signs</i></b>	Students will identify signs of insect activity and determine the role of insects in a forest food chain.
2	<b><i>Mammal Signs</i></b>	Students will use a variety of signs to identify the presence of specific mammals and determine their diet in the forest food web.



# Forest Learning Trail Activities (cont.)

List and Objectives of Forest Learning Trail Activities

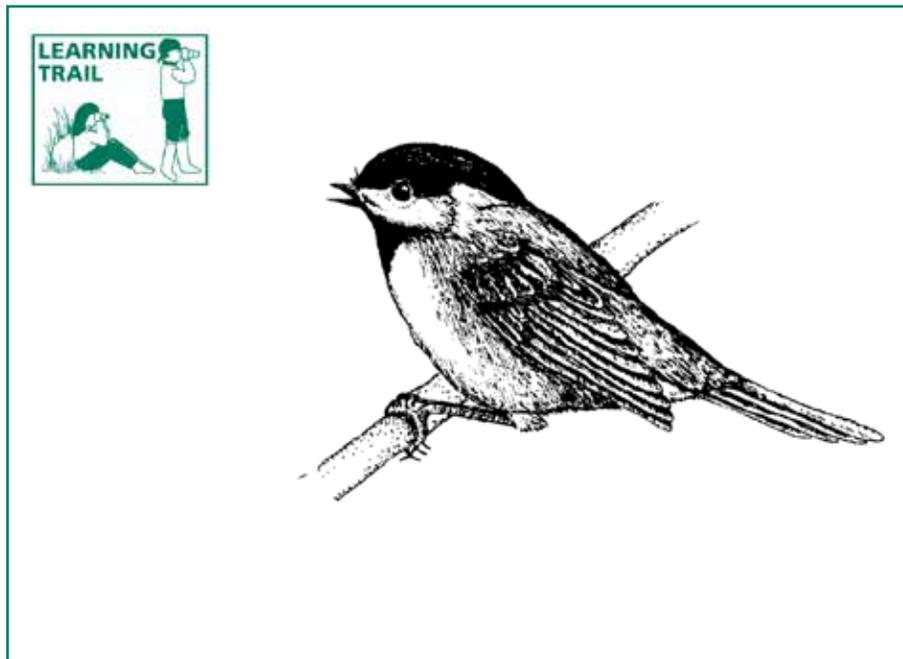
Note: some activities follow, others can be found in Sections 1, 2, 4, and 5.

<b>Section #</b>	<b>Activity Name</b>	<b>Learning Objective</b>
2	<b><i>Bird Signs</i></b>	Students will recognize bird signs and identify the species and behavior of any birds in the area.
4	<b><i>Snag a Home</i></b>	Students will look for evidence that dead trees comprise a link in some forest food chains.
4	<b><i>Forests and Sunlight</i></b>	Students will observe and compare densely forested and open forest sites to determine the role sunlight plays in a forest ecosystem.
4	<b><i>Forests and Soils</i></b>	Students will describe and compare soil composition found in forested and non-forested sites.
5	<b><i>Human Activities</i></b>	Students will identify effects of human activities in a forest and classify them as helpful or destructive to the forest ecosystem.
3	<b><i>Forest Sharing</i></b>	Students will match descriptive words or phrases to observations made in the forest.



# Forest Bird Song Tag

## Section 3 FOREST ACTIVITIES



**Grade Level:** 2 - 12

**NGSS:** 2-LS4-1

**Subjects:** Language arts, music, physical education

**Skills:** Listening, memory, concentrating

**Duration:** 15 minutes in class; 15 in game

**Group Size:** Entire class

**Setting:** Indoors & outdoors

### Objectives:

Students will practice listening skills and learn to recognize the songs of forest birds common in your area.

### Complementary Activity:

"Forest Sounds" in this section.

### Materials:

Tape recorder; tape recorded songs of forest birds. There are a variety of records and tapes of bird songs available. Check with local libraries, museums, or bird watchers to borrow a copy, or purchase a copy (see following Curriculum Connections and Teacher Resources).

### Procedure:

*IN ADVANCE*, use or make a tape recording of 6-8 songs of common forest birds. Record the songs (see lists below) along with the announcements of the birds' names on the tape. This portion of the tape will be used to teach students the bird songs.

Make a second tape recording with several repetitions of these songs in mixed order, without the name

announcements. This portion of your tape will be used to play the game outdoors.

1. *IN THE CLASSROOM*, review the bird songs with students. Repeat the review immediately before going outside to play the game. You will want students to recognize the bird songs on your tape.

### 2. PLAY BIRD SONG TAG.

Divide the class into two teams, the Hawks and the Songbirds. Place markers showing the "Home Base of the Hawks," the "Home Base of the Songbirds," and a "Home Free" spot. Place these markers in a triangle at distances apart that are appropriate for your students. Have each team stand on or near its home base. Explain the **rules of the game**:

(a) Call out the name of a bird that is recorded on the tape.

(b) All students must listen carefully while you play the bird song tape. When the song of the bird you named is played, the Songbirds must run towards the "Home Free" spot, and the Hawks must chase them.



(c) If a Songbird gets to the “Home Free” spot without being tagged by a Hawk, he survives and returns to the Songbird home base. If he is tagged, he becomes a Hawk.

(d) If a Hawk catches a Songbird to eat, she remains a Hawk and returns to the Hawk home base with her prey (who becomes a Hawk). If a Hawk does not catch a Songbird, she dies; her minerals are returned to the soil and are taken up by a plant whose seeds are eaten by a Songbird. In other words, starved Hawks become Songbirds.

(e) If either a Songbird or a Hawk runs out at the wrong song, he returns to his home base and takes two big steps backwards (*that is, moves farther away from the “Home Free” base*).

(f) The team with the most players at the end of the game wins. The end of the game is whenever you decide it should end.

3. Remind students that when they are on the *Forest Learning Trail* or outside anytime, if they are quiet and listen, they may hear these birds.

NOTE OF CAUTION: If you are doing this activity in late spring as birds set up and defend nesting territories, be respectful if the tape draws an upset songbird trying to chase away the recorded competition.

### Curriculum Connections:

(See appendix for full citations)

### Books:

*Guide to the Birds of Alaska* (Armstrong)

### Media:

*Bird Songs of Alaska* (CD) (Peyton)

*Western Bird Songs* (CD) (Peterson)

### Teacher Resources:

(See appendix)

## Suggested Songs

### Suggested songs–Boreal Forest

Any woodpecker of Alaska  
(chirp and drumming)  
Gray Jay  
Common Raven  
Black-capped Chickadee  
Common Redpoll  
Pine Grosbeak  
Great Horned Owl  
Spruce Grouse

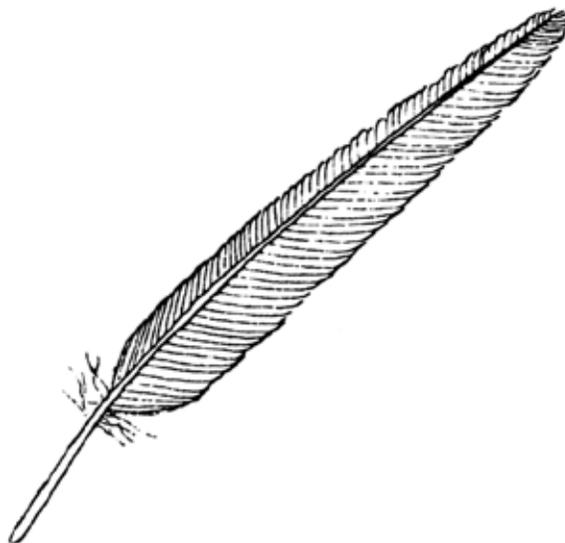
### Suggested songs–Coastal Forest

Any woodpecker of Alaska  
(chirp and drumming)  
Common Raven  
Northwestern Crow  
Steller’s Jay  
Chestnut-backed Chickadee  
Pine Siskin  
Winter Wren  
Blue Grouse  
Varied Thrush



# Sensing Forest Mysteries

## Section 3 FOREST ACTIVITIES



**Grade Level:** 2 - 12

**Subject:** Science  
NGSS: 2-LS4-1

**Skills:** Comparing, memory,  
sensory awareness

**Duration:** 40 minutes

**Group Size:** Small groups, whole  
class

**Setting:** Indoors

**Vocabulary:** Senses

### Objectives:

Students will use their senses of hearing, seeing, smelling, and touch while identifying items from the forest.

### Materials:

Clipboards and writing paper or field note books, pencils or pens for each student. Small box for **smell** items; large box for **touch** items; tape recorder; small contest prizes (*these awards can be tangible – such as a balloon – or intangible – such as getting to go to lunch first*).

**See:** bark of a tree, lichen, twig browsed by a hare, moose, or deer, leaf, a piece of a feather, other animal sign.

**Touch:** tree bark, conifer branch, shelf fungi.

**Smell:** conifer branch, leaf litter, poplar or cottonwood branch (if sap running), rotting wood, skunk cabbage.

**Hear:** short audio tape recording of bird song or call,

wind in trees, footsteps in snow, dripping or flowing water.

### Procedure:

*IN ADVANCE*, select mystery items. Select one item for each of the four senses from the list above, or use others that you found while setting up the trail.

Prepare containers for the items that are to be touched and smelled:

(a) Prepare the *small box* for the smell item. Punch holes on all sides. Be sure you put enough of the “smell” mystery item inside so that you smell it instead of the cardboard.

(b) Prepare the *large box* for the tactile items. Cut holes big enough for hands to reach inside. Put cloth covers over the openings to prevent students from looking at the tactile items.

Set up a site in your school for each sensory category. If incorporated as part of the *Forest Learning Trail*, do this no earlier than one day before your field trip.

(a) The **visual** items can be laid out on a table.



(b) Have someone operate the **auditory** station by playing the tape recording for each student or group of students.

(c) Place the **touch** and **smell** boxes where they can be easily handled.

1. *IN CLASS*, tell students they are going to need to use their senses carefully in order to solve several forest mysteries. Explain that there are four (or more) secret items that were brought back from the forest they are going to visit. Students will visit each mystery box or table and observe the secret items carefully.

2. Tell them that when they are in the forest, they should keep their eyes, ears, noses, and hands awake and observe carefully. If and when they come across a mystery item from these sense stations, they should write a note to themselves in their notebook. They should not tell anyone else. Explain that when they return to class later, there will be a contest to see who has solved the forest mysteries.

3. Students travel the *Forest Learning Trail* or take a walk in a forest.

4. Hold a contest to identify the mystery items. Allow students to reexamine the mystery items, if desired. Then they write down what they think each item is on a piece of paper with their names.

5. Ask students what they thought each item was and see if there is a class consensus. Then reveal the item and its correct identity. Repeat the procedure for each item – then give 4th place awards to those who got one item correct, 3rd place to those who got 2 correct, and so on.

### Curriculum Connections:

(See appendix for full citations)

### Media:

*Bird Songs of Alaska* (CD) (Peyton)

### Teacher Resources:

(See appendix)



# Forest Views

**ALERT: ALASKA ECOLOGY CARDS REQUIRED**



## Section 3 FOREST ACTIVITIES

**Grade Level:** 3 - 12

**State Standards:** L B-3

**Subjects:** Science, language arts

**Skills:** Observing, imagining, creative writing

**Duration:** 30 minutes

**Group Size:** 1-4

**Setting:** Outdoors

**Vocabulary:** Senses

### Objectives:

Students will write or act out the experiences of a wild animal from the forest.

### Materials:

Copies of the Science Cards for each student, selected *Alaska Ecology Cards* for each student, notebooks or clipboards and paper, pencils or pens.

### Procedure:

*IN ADVANCE*, select *Alaska Ecology Cards* for animals that occur in the forest in your area. Include one insect and/or small mammal that lives in or on the soil (*ant, springtail, shrew, vole*), one animal that is fairly close to human height (*deer, moose, bear*), and one animal that lives in the tree tops (*flying squirrel, chickadee*).

Select a forest site with good places to sit that will provide comfortable places for students to write.

1. *IN CLASS*, tell students they are going to need to use their senses carefully in order to complete this activity. And they will think outside of themselves as if they were forest wildlife.

2. Tell them that when they are in the forest, they should keep their eyes, ears, noses, and hands awake and observe carefully. They will receive their animal identity at the forest site. They should not tell anyone else who they are. Explain that when they return to class, they will see who can guess their identities.

3. Send students outside to travel the *Forest Learning Trail* or to sit for awhile at a site in the forest.

4. Assign a reasonable length of time for your students to write about their animal or plan their role play. If an example is needed for the writing exercise, read a portion of *Di's Story* from *Alaska's Tundra and Wildlife*.

### Classroom Follow-Up:

Students read aloud their essays or (for younger students) act their character and see if their fellow students can guess what kind of forest animal they were pretending to be.



**Curriculum Connections:**  
(See appendix for full citations)

- Books:**  
*Faces in the Forest* (Hirschi)  
*Forest Mammals* (Kalman)  
*In the Forest* (Cooper)

*Look Closer: Tree Life* (Greenaway)

**Teacher Resources:**  
(See appendix)



**SCIENCE CARD**

## Forest Views

1. Write the title “Forest Views” at the top of a page in your notebook.
2. Take one *Alaska Ecology Card* and one “Science Card: Forest Views” for yourself. Find a good spot to sit, look carefully at the forest around you, and follow the directions on your Science Card.
3. Read your *Alaska Ecology Card* to learn something about the animal.
4. Imagine that you are that animal, and you live in this forest. Imagine you are living wherever your animal lives and looking through its eyes as you look around.
5. Write in your notebook: “I am a forest animal.”
6. Write one or more complete sentences to answer each of the following questions:
  - (a) Exactly where are you and what are you doing?
  - (b) What do you see, feel, smell, or hear within a few inches of your nose, bill, or snout? Describe the sizes of the things around you, their colors, textures, and shapes.
  - (c) What do you see on all sides of you if you look outward a distance of a few feet?
  - (d) What do you see if you look out as far as you can see? Describe the distance, colors, and textures of your view.
  - (e) You just spotted a predator! Describe it. Describe where it was when you spotted it, and how you narrowly escaped it.
  - (f) Record the name of the animal you imagined yourself to be.



# Forest Art

## Section 3 FOREST ACTIVITIES



**Grade Level:** K - 12

**State Standards:** A A-1

**Subject:** Art

**Skills:** Observing, drawing, painting

**Duration:** 30 minutes

**Group Size:** 6 to whole class

**Setting:** Outdoors

### Objectives:

Students will observe and reproduce colors found in a forest environment.

### Materials:

Jug of water; "Art Kit" for each student in the group containing watercolor paints, paintbrush, small pan or jar for water; clipboards and writing paper or field note books, pencils or pens for each student; "Forest Art Science Card" (following).

### Procedure:

*IN ADVANCE*, prepare "Art Kits." Label each kit by a color, i.e. the "Red Art Kit," the "Blue Art Kit." Other suggested colors as found in nature are yellow, green, black, and brown.

Locate a forested site where students can sit comfortably.

Place a large bottle or jug of water at this site.

*IN CLASS*, depending on grade level, guide the students through the activity or send them out to follow the instructions on the Science Card.

### Classroom Follow-Up:

Set up a display of student artwork. Discuss the difficulty of matching nature's colors. Help students improve their color mixing skills.

### Curriculum Connections:

(See appendix for full citations)

### Books:

*Sky Tree* (Locker)

### Teacher Resources:

(See appendix)



## Forest Art

1. Arrange yourselves in a circle or line, so it will be easy to see whose turn is next.

2. The first person should point to something in the forest that is *red*. Each person in line must then point to something different that also contains the color *red*. Look carefully. Anyone who can't see something new that contains the color is out of the game until the next round. The last player to point out something red will get the "Red Art Kit."

3. Everyone else plays again for the other colors (*yellow, blue, green, black, and brown*). The winner of each round gets the "Art Kit" of that color.

4. The color of this kit is "your color." Find something from the forest that contains your color.

5. On a page in your forest notebook, draw a picture of the space around this object (the negative space). You may be surprised to find that once you have drawn the negative space, you will have drawn the item!

6. Now put some water from the jug in your pan or jar. Use the paintbrush and watercolors to mix a paint that matches as closely as possible the shade and tint of your color that occurs in the natural object. Then paint your color wherever it should go in your negative space drawing of the forest object.



**Sample Object**

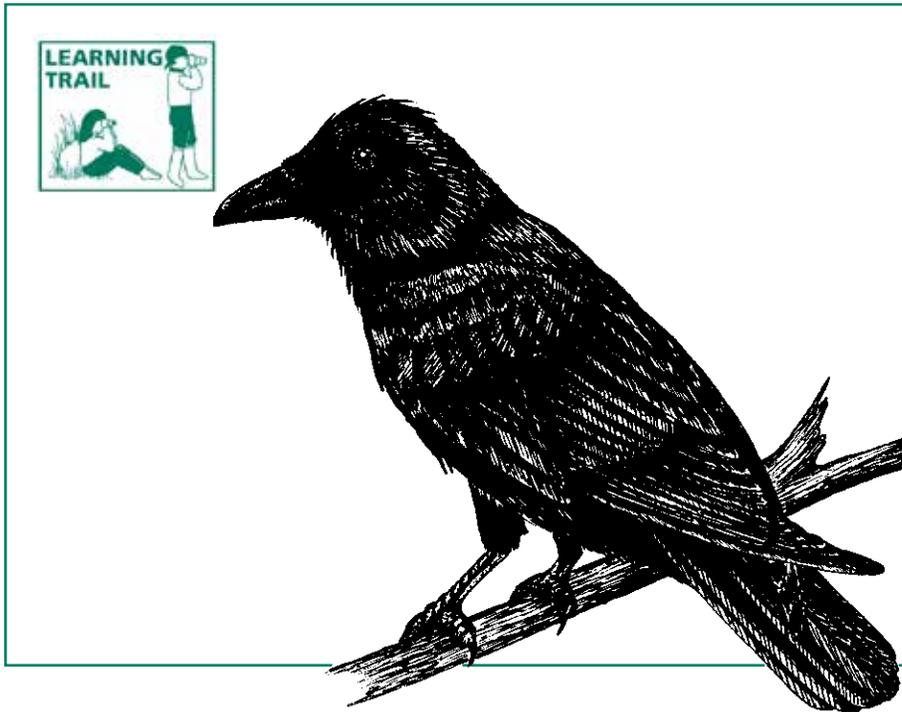


**Sample Object in Negative Space**



# Forest Sounds

## Section 3 FOREST ACTIVITIES



**Grade Level:** K - 12

**State Standards:** S A-15  
**NGSS:** 2-LS4-1

**Subjects:** Science, music

**Skills:** Listening, observing, identifying

**Duration:** 30

**Group Size:** 4-6

**Setting:** Outdoors

### Objective:

Students will listen for and map forest sounds.

### Complementary Activity:

"Forest Bird Song Tag" *in this section*.

### Materials:

Audio tape of recorded bird songs as described in "Forest Bird Song Tag" *in this section*. Clipboards and writing paper or field note books, pencils or pens for each student. Copy of "Forest Sounds Science Card."

### Procedure:

*IN ADVANCE*, select a forest location far from distracting noises of traffic, parking lots, or playgrounds. *Sites that are near open water, contain snags, or have a variety of vegetation layers (tree canopy, tall and low shrubs, and ground cover plants) attract more birds and will be good choices for this station.*

Place the "Science Card: Forest Sounds" at this site.

1. *IN CLASS*, familiarize students with the calls and songs of common local birds using the audio tape of bird songs before going into the forest.

2. Depending on grade level, guide the students through the activity or send them out to follow the instructions on the Science Card.

### Curriculum Connections:

(See appendix for full citations)

### Media:

*Bird Songs of Alaska* (CD) (Peyton)

### Teacher Resources:

(See appendix)



## Forest Sounds

1. Write the heading "Forest Sounds" at the top of a page in your field notebook.

2. *Read instructions 3-5 before doing anything else.*

3. Move to a spot where you can still be seen from this station, but you are off the trail, and a little bit out of view. You may want to choose a spot under a tree or on a nice rock or fallen tree. *You must sit at least 10 feet away from anyone else.* Sit so that you face away from other students. Be very quiet, close your eyes, and listen carefully to the sounds of the forest.

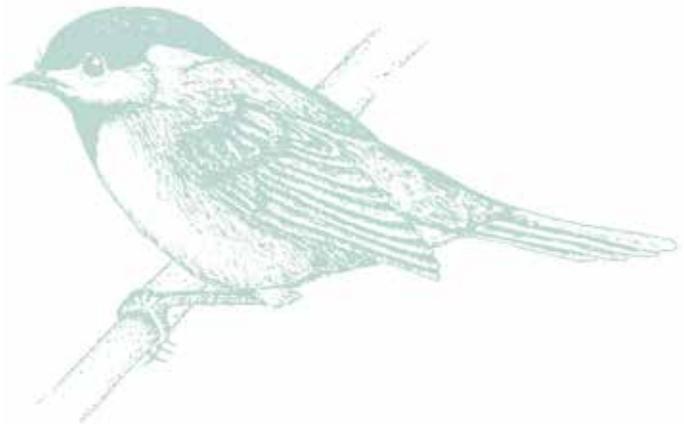
4. Listen to the trees, shrubs, snow, ground, birds, and animals for a few minutes. Then, slowly open your eyes. If you were very quiet, a forest animal may just be poking its nose out at you. Keep listening and quietly make a map of the sounds around you in your notebook. Label each sound and place it on your map.

5. Do you hear more students coming? Just think if you were an animal and heard all the noise people often make. Would you stay out where you could be seen? Try to be so quiet that they don't notice you.

*Read step 6 only after you have finished steps 1-5.*

6. Later, compare the sounds you heard with your group members. Did you all hear the same things? Try to be very quiet so that the next group will be able to hear the forest sounds, and you don't scare any animals that are ahead of you on the trail. You can be somewhat noisy, however, if there are likely to be bears in the area – they will usually move away if warned of your approach.

Now that you know about being quiet, and listening for forest sounds, maybe you'll hear and see more forest wildlife.



# Nosing About

## Section 3 FOREST ACTIVITIES



**Grade Level:** 3 - 12

**Subjects:** Science, social studies

**Skills:** Using senses, recall, working together

**Duration:** 20 minutes

**Group Size:** 2

**Setting:** Outdoors

**Vocabulary:** humus

### Objective:

Students will use their sense of smell to identify a variety of items found in a forest ecosystem.

### Materials:

Clipboards and writing paper or field note books, pencils or pens for each student. "Forest Smells Kit" for each pair of students – containing a bandanna for use as a blindfold, a copy of "Science Card: Nosing About," five plastic bags with clearly labeled forest items, such as: (1) rotting leaf litter or **humus**, (2) a piece of rotten wood, (3) fresh twigs from a shrub or hardwood tree, (4) a conifer branch or cone, (5) a shelf fungus (or other smelly item).

### Procedure:

*IN ADVANCE*, locate a forest site where there are naturally occurring examples of items in the Forest Smells Kit.

Prepare Forest Smells Kits so that each pair of students can have one.

*IN CLASS*, depending on the grade level, guide the students through the activity or send them out to follow the instructions on the Science Card.

### Teacher Resources:

(See appendix)



## Nosing About

1. Count off your group (1, 2, 3, ...). If you are an odd number, pair with an even-numbered student. (*1, 3, 5, 7 are odd numbers; 2, 4, 6, 8 are even numbers.*)

2. You and your partner take one "Forest Smells Kit."

3. The odd-numbered partner should put on the blindfold and start testing her sniffing abilities, while the even-numbered partner reads instructions 4 and 5.

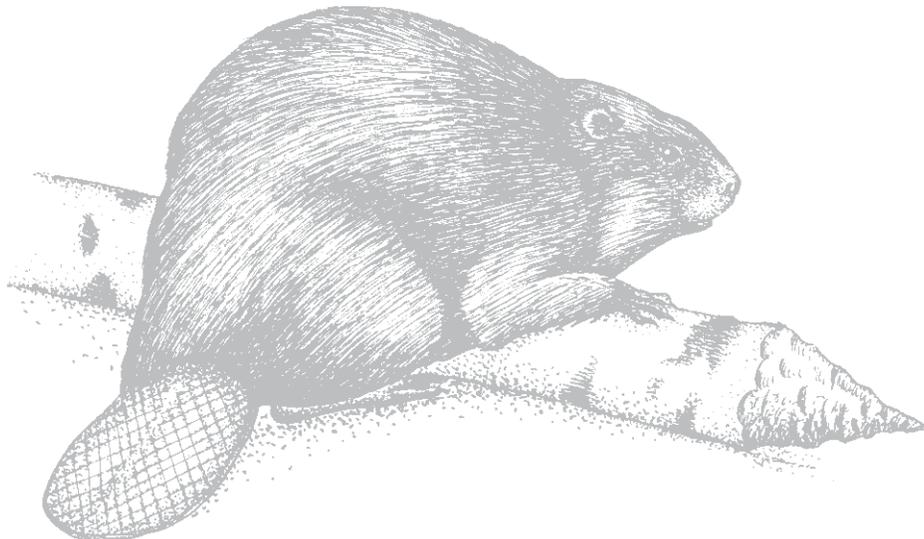
4. Look at the contents of this kit. Each enclosed bag contains an item from this area. Look for each item in the surrounding area, then carefully lead your partner to item in the wild. Tell her what each item is, then have her smell it. Be very careful leading your partner around because she can't see. You must tell her when to step over a log or rock.

5. After your partner smells each item in the wild, let her sit down. Now, have her smell each bagged item (mix up the order) and see if she can identify it by remembering the smell. How many does she correctly identify?

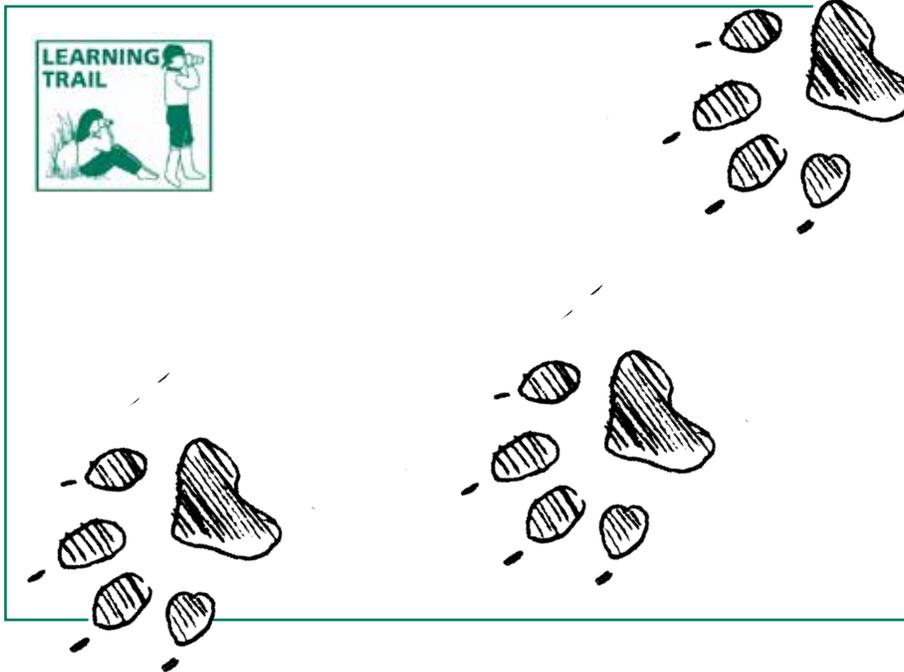
*Read on only after you do steps 3-5.*

6. Trade places. The even-numbered partner puts the blindfold on now. The odd-numbered partner asks the blindfolded person only to smell each bagged item. How many can he recognize by smell alone? When he could see the items earlier, did he use his sense of smell or only rely on sight?

7. As you move down the trail, sniff the wind and the trees. Most forest mammals rely more on smell than on sight. They can smell other animals, food, and you. If you use your sense of smell carefully, you can learn to detect some of them by smell too. *River otters and beavers have very distinctive odors. You can sometimes avoid trouble with bears by learning to recognize the smell of a dead animal. Bears are attracted to this smell, and they will fight to guard a carcass.*



# Track Casting



## Section 3 FOREST ACTIVITIES

**Grade Level:** 5 - 12

**Subjects:** Science, art  
NGSS: 5-ESS3-1,-LS2-1, MS-LS2-2.

**Skills:** Observing, following instructions

**Duration:** 2 40-minute sessions

**Group Size:** 2-4

**Setting:** Outdoors & indoors

### Objectives:

Students will make a plaster of Paris cast of an animal track.

### Complementary Activity:

*OUTDOOR:* "Mammal Signs" in Section 2, *Ecosystems*.

### Materials:

*IN THE FOREST* – Clipboards and writing paper or field note books, pencils or pens for each student. For each pair of students: 1 /2 cup of plaster of Paris, one jar of water, 1-inch wide lightweight cardboard strip, toothbrush, forceps or tweezers, a pail of wash water, one empty jar.

*IN THE CLASSROOM* – Playdough (homemade from flour, water, salt, oil, cream of tartar, and food coloring), a flat box, rolling pin, felt tip pens and cards.

*OPTIONAL:* Sample casting as example.

### Procedure:

*IN ADVANCE,* locate a forest site where tracks of mammals or birds are easy to find and where students will be able to return to the classroom after 20 or more

minutes. If you are unable to locate reliable tracks, consider making tracks using a dog or pre-made tracks.

Place the Science Card and the materials at the site. You may want to set up a sample casting as an example.

*IN CLASS,* depending on the grade level, guide the students through the activity or send them out to follow the instructions on the Science Card.

### Classroom Follow-Up:

1. Students make a track display using homemade PLAY DOUGH:

For each track combine 2 cups flour, 1 cup salt, 2 cups water, 3 teaspoons cream of tartar, 2 tablespoons cooking oil, and a few drops of food coloring in saucepan. Cook until stiff.

2. Students roll out a 3/4-inch thick pancake of dough. Press each track print into the dough to make replicas of the tracks found in the forest.

3. Students make labels for their replica tracks and a title sign for their display, such as "Forest Tracks." Display for other students in the school to see.



NOTE: Rubber tracks are available for loan throughout the state. If locating tracks is difficult near your school, you may choose to borrow tracks and “salt” the area with them prior to doing this activity. Contact Wildlife Education at Alaska Department of Fish and Game in Anchorage for more details. (907) 267-2168.

**Teacher Resources:**  
(See appendix)

**Curriculum Connections:**  
(See appendix for full citations)

**Books:**  
*Animal Tracks of Alaska* (Sheldon)

*Animal Tracks of Alaska* (Stall)

## SCIENCE CARD

# Track Casting

Choose a partner to work together.

1. Be careful not to step on the animal tracks in this area so that other students will be able to see and use them. Select the track of one animal from this area.
2. Carefully remove sticks and leaves from the animal track with forceps or tweezers. Press a strip of cardboard in the snow or mud around the track.
3. Using the empty jar, mix a half cup of plaster powder with enough water to make a thick batter. If the track is in snow, mix snow with the water before

you mix up the batter. This cold batter will be less likely to melt the snow and ruin your track. Pour the batter inside the cardboard strip over your track.

4. It will take about 20 minutes or longer for your track casting to dry. Wash out the mixing jar so others can use it. Carefully pick up your track casting and gently clean off any dirt using the toothbrush. Then take the track casting back to class.



# Forest Sharing

## Section 3 FOREST ACTIVITIES



**Grade Level:** 3 - 12

**State Standards:** LA A-1

**Subject:** Language arts

**Skill:** Speaking, writing

**Duration:** 30 minutes

**Group Size:** Entire class

**Setting:** Outdoors

**Vocabulary:**

### Objectives:

Students will match descriptive words or phrases to observations made in the forest.

### Complementary Activities:

**OUTDOOR:** All the other activities of the Forest Learning Trail.

### Materials:

Clipboards and writing paper or field note books, pencils or pens for each student. Box or hat to hold cards; cards for each student with a different descriptive word or phrase written on it. *Suggested Terms: most interesting, strangest, ugliest, warmest, coldest, most curious, best smelling, worst smelling, darkest, brightest, most red, darkest blue, brightest yellow, (and other colors), fastest, tallest, smallest, longest, oldest, youngest, most beautiful, loudest, hardest to hear, hairiest, most feathered, most rough, most smooth, most prickly, sharpest. (You may also want to add students' favorite slang terms.)*

### Procedure:

1. The box of cards should be placed at the last site along the trail, and the activity conducted with the entire class.

2. Gather the class in a circle. Pass around the box or hat with the cards in it and ask all students to draw one card. Ask all students to think carefully about the things they observed in the forest today. What object best fits the word or phrase listed on the card they drew?

3. Start with any student and ask her to describe what she saw today that fits the description on the card. You may have her state the answer using the word or phrase (*i.e. The prettiest thing I saw today was a spruce tree.*); OR state what she saw, thought, or felt about it (without using the words on the card – *i.e. I saw a spruce tree. I thought it was beautiful because.....*), then have the class try to guess what word or phrase the student has listed on that student's card.

4. Have all students in the class describe one thing that they observed before ending this activity.

### Classroom Follow-Up:

Students write descriptive essays, using adjectives, about their trip through the forest.

### Teacher Resources:

(See appendix)

