

*The Kitchen
Sink*

BIRD ON A STICK

- Focus** To allow road and window killed birds to be salvaged for use as study skins. Permit for salvaging is required, contact Cispus for information.
- Group Size** For instructor use
- Time Required** 3 hours minimum (*varies with specimen*)
- Materials**
- | | | |
|-----------------|-------------------------|-----------------|
| Metric ruler | Vernier-type calipers | Scale |
| Display Tags | Dissecting pan/pad | Blunt scissors |
| Dull blade | Dissection scissors | Blunt probes |
| Forceps | Cleaning sink | Mild soap |
| Carpet thread | Low-intensity hairdryer | Suturing needle |
| Dissection pins | non-absorbent cotton | Mist pins |
| Bird I.D. Bood | Bird anatomy book | Wooden dowel* |
| Spray bottle** | Styrofoam drying pad | |
- Slides of the dissection steps may also be available from Cispus
*Diameter and length depend on specimen
**filled with water
(Clipped nails are helpful, even a very short length has the tendency to tear the specimen's skin)
- Physical Setting** Classroom with sink and good lighting
- Process**
- Activity 1: RECORDING INFORMATION**
To have an actual scientific specimen you'll need this information. Otherwise, all you have is a stuffed bird.
- Body Measurements*
 - wing cord (wing-bend to longest primary)
 - length (beak to longest tail feather)
 - weight (dead and/or live)
 - tail length
 - tarsus length
 - culmen length
 - wing extension
 - Physical Descriptions*
 - color of soft parts (iris, cere, fleshy eye ring, inside of mouth, tongue)
 - color of feet, claws and bill
 - is culmen exposed
 - amount of body fat
 - male or female
 - Collecting Information*
 - common and scientific name
 - manner of death
 - where and when collected
 - collected by
 - prepared by

Activity 2: DISSECTION

1. Plug mouth and damaged eyes with non-absorbent cotton.
2. With the body facing left, make an incision from the base of the sternum to the vent, without cutting through the abdominal wall (Dampen the chest feathers and part them if you are unsure where to start the cut). The skin here is usually very thin, which makes it difficult to determine how deep to make the initial cut. If you do cut into the abdominal wall, separate the chest skin from the flesh and continue the process, cutting the skin only, and being careful of the damaged area.
3. Using borax to absorb moisture, loosen the skin from around the chest on one side of the body and down to the abdomen to expose the hip (tibia and femur) joint.
4. Grasp the leg and push it up through the hole, to better expose the joint.
5. Place a probe behind the joint, then with blunt scissors or a scalpel, cut the joint, detaching it from the body (when your instrument hits the probe you know when to stop the cut).
6. Repeat on the other side.
7. Work the skin loose around the back of the bird.
8. Separate the tail from the body by cutting the "parson's nose", leaving the tail feathers attached to it.
9. Peel the skin down the back and sides until the base of the humeri are exposed.
10. Place a probe behind the shoulder joint, then with blunt scissors or a scalpel, detach the wing from the body.
11. Repeat on the other side.
12. Pull the skin over the neck and to the base of the skull.
13. Detach the head and neck from the body, by cutting at the joining of the neck and shoulders.
14. Detach the ears from the skull by using forceps to pull out the membranes.
15. Remove the body from the skin. Set aside for sexing and to use as a size model for stuffing.
16. Pull the skin to expose the eyes, taking care not to stretch the eyeholes.
17. With a scalpel, carefully cut the membrane joining the skin and the eyeball. Make the incision far enough back to avoid cutting the skin on the eyeball.
18. Peel the skin over the eye and remove the eyeball with forceps.
19. Using blunt scissors, sever the head from the neck at the extreme base of the skull.

20. Peel skin the remainder of the way up to expose the skull. If the skin begins to dry out or is stiff, moisten it with water. Strip the brains (you will need to cut a small hole in the back of the skull to do this), tongue, and all removable flesh from the skull (be careful not to let the beak cut through the skin).
21. Loosen the skin around the legs, working down to the knee joint and strip all removable flesh off of the bone.
22. Loosen the skin down the wings as much as possible. Detach secondary feathers from the ulna, and strip all removable flesh from the ulna and radius.
23. Remove the flesh of the parson's nose, be sure to get the oil gland too.
24. Wash the skin with mild soap and water. Gently removing any remaining fat and flesh. Don't let the skin soak, or you may spend an hour or two patting dry the feathers!
25. Pat dry with a paper towel, then gently blow-dry skin and feathers, taking care not to dry out the skin.
- 25.a If you had a tough time getting the skin over the skull you will want to concentrate on the head first. Go through steps 24-26; once the SKULL is treated with borax, stuffed, and turned right-side-out continue drying and treating the rest of the skin.
26. Work the inner skin and bones with Borax to preserve them.
27. Put cotton balls into the eye sockets, and pull the skin carefully back over the head.
28. Tie the ends of the humeri together and place in the mid-back of the opened skin.
29. Twirl enough cotton onto the display dowel to approximate the birds body (use the original body as a model). There should be little or no cotton at the neck area. The display dowel is sharpened at one end and it is about eight inches longer than the specimen. This will allow the bird to be held by the beak and dowel handle between it's feet, keeping the specimen in good shape even with extensive use.
30. Blowing open the neck hole, place the body-stick (with the head-end sharpened) into the skull. Anchor it firmly into the base of the bill and nasal area, but without sticking it out through one of the nostrils. The bird's head should be positioned so that the bill points in the opposite direction of the feet (up), allowing it to lie flat and fit into a drawer.
31. Place the body stick into the opened skin and work the skin closed around it. Sew up using a baseball stitch. Leave the stitches loose, then "draw up" on the end threads to pull the skin closed.
32. Cross the tarsus of one leg over the other, and tie them in position over the stick.
33. Attach the identification tag.
34. Sex the bird and label tag appropriately. If the bird was not recovered in the spring the sexual organs may be shrunken and unidentifiable . If that is the case, you may be able to determine sex by the plumage or size. If you have no way to identify the sex, state the reasons on the identification tag.

35. Set the bird, stomach-side up, on the drying pad. Using a pin, gently fluff and pat the feathers into the position they would hold naturally. You may wish to consult nature magazines, or other detailed photos and illustrations. Pins and paper can be used to keep feathers in place while they set. Let the specimen dry undisturbed for several days.

36. Check the specimen, re-arranging feathers as necessary. Let dry for another three days. Then, store carefully until needed.

Notes:

CISPUS DAWN

Focus	To use sensory stimulation to aid in creative writing.
Group Size	Entire class
Time Required	20-30 minutes
Materials	Cassette player Cassette tape, "Dawn to Dusk" Pen Student notebook Handout: <i>Cispus Dawn</i>
Physical Setting	Cispus Star/Mural Room

Process

Activity 1 : CISPUS DAWN

Preview "Dawn to Dusk," cassette #6, found in the Cispus Library. You will want to practice technique with lights and sound before presenting to your students.

1. Take your students to the Mural Room, also known as the "Star Room," located adjacent to the auditorium. Turn on regular lights only (push the button) and manipulate the dimmer to full light first. (Don't even try the light switch located just above the dimmer as this will engage the ultra violet light and you'll lose the focus of this lesson.)
2. Allow students time to pick out known Cispus sites, i.e., Tower Rock, or Covell Creek. Have the students sit down where they can see a favorite mural.
3. Turn on the tape player, softly at first, then a little louder. Discourage conversation.
4. Have students turn to the, *Cispus Dawn* activity in their workbooks. Review the basics of simile and metaphor. Guide them through the questions or have them respond spontaneously to their feelings. It may help to have them close their eyes for about 30 seconds and let the images just seen and heard come together.
5. Now, have the students respond to the questions without talking to their neighbors, or showing them what they've written.
6. After allowing time to complete the questions, call on specific students to share. This way some who normally wouldn't raise their hands will have an opportunity. Be ready for pleasing observations.
7. Ball point pen is suggested so students won't want to erase and start over; it encourages creativity. At a later time, back at the dorm or at school, grammar can be corrected.

Extensions:

1. Try other creative writing activities here, like cinquains or haiku. See poem templates in "THE CISPUS EXPERIENCE", p. CI-13.
2. Try the exercise, going dusk-to-dawn.
3. Change the mood by putting in a different tape, or turning on the ultra violet lights while leaving enough regular light to see and write.

Cispus Dawn

1. What are the feelings you have right now about this place? (Make use of similes and metaphors.)
2. Without using your senses of touch and smell, choose something in the mural and try to describe its feel and smell.
3. If you could be in one of the murals right now, where exactly would you like to be? Why? What would you like to be doing?
4. Become something shown in one of the murals or become something that might belong there, but isn't shown. (a) Describe yourself (you can be big like a mountain or small like a drop of water). (b) If it is spring how would your activities be different in the opposite season (fall)?
5. Draw yourself (from question 4).

HOW FAR DID YOUR BREAKFAST TRAVEL ?

Focus To emphasize the importance of locally or regionally grown foods by exploring the demand for out-of-season crops and many internationally grown foods. And to consider what these demands cause: the expansive centralization of distribution systems, which intensify the use of energy and the increase in distributive inequality.

Group Size Entire class

Time Required 1 hour

Materials World Map String or yarn
Washington Map Pins
USA Map Labels

Physical Setting Classroom or outside

Process

1. Ask the students to make a class list of the foods they ate for breakfast.
2. Use the world map to find out where these foods originated. Use yarn or string and labels to demonstrate this. Select foods that are not highly processed but composed of one main ingredient, i.e., bananas-South America; grapefruit-Texas, California, Florida; orange juice-Texas, Florida. Use yarn to connect the origins with the hometowns of the students.
3. Discuss with the class how far some foods travel to get to us, and how some foods can be found closer to home. What does this mean in terms of energy used? What are the various forms of energy used to transport food to our mouths? Discuss trucks, planes, trains, fuel, and human energy for production and distribution of food. Make a class list of jobs necessary to produce the desired food, i.e., graphic designers for advertising and pesticide companies, etc. Discuss natural resources expended for food distribution. Discuss growing terms "locally" and "regionally".
4. What are our favorite foods? Are they grown locally or regionally? Are there foods that we like or depend on that are not grown locally? Can we consider local or regional substitutes? Discuss peoples close relationship with the land and growing seasons prior to the centralization of food distribution.
5. Invite a local farmer or speaker to talk about what kinds of foods are available in this region and when they are in season.
6. Plan and prepare a meal using local foods. Preparation of a meal is optional.
7. Analyze a Cispus meal.

Reference:

This lesson was created with information from the Energy, Food, and You curriculum guide, a program of the Washington State Offices of Environmental Education (N.W. Section) and Health Education.

INDOOR CAMPFIRE

Focus	To conduct campfire activities indoors when there is extreme weather outside.	
Group Size	Entire class (no more than 40)	
Time Required	1-2 hours	
Materials	The Cispus electric campfire Songbooks Musical instruments Cassette player (opt.)	Rocks for fire ring (opt.) Songsheets Skit materials
Physical Setting	Cispus Center Star/Mural Room	
Process	<p>Activity 1: SETTING UP</p> <ol style="list-style-type: none">1. You can set up the electric campfire almost anywhere in the room that you wish (all but one wall has electrical outlets), but be sure to tape the electrical cord to the floor only. Make sure that no tape, stickers, pins, or gum end up on the walls.2. Respect room rules of no food or beverages.3. For ventilation you might want to leave the door ajar or fully open, leaving the hallway light off to maintain a campfire mood.4. The regular lighting can be turned off once your campfire is going, or the dimmer switch can be turned down to a comfortable level. You might also wish to turn on the ultra-violet lighting (light switches), charge up the stars, and have a star-lit campfire. Trying out the variations before-hand will have your evening running smoother.5. Good campfire programs don't just happen, they're created with careful planning. Follow suggestions in "THE CISPUS EXPERIENCE" pp. CI-6,7 and CI-25,26 for songs, skits scripts, and short story ideas. Create a program to meet your needs. Activities planned for an outdoor campfire can usually be easily adapted for the indoor setting. <p>Activity 2: THE CLEAN-UP</p> <ol style="list-style-type: none">1. You've all had a great evening singing and telling stories around the campfire. Now it's time for the assigned clean-up crew or staff members to make sure that everything is picked up, all the lights are shut off, and the room is locked; ready for the next group.	

THE BIG PICTURE

- Focus** To allow the student an opportunity to make connections between ideas and concepts and form a holistic understanding of what they learned about nature and the environment at Cispus. To allow the student an opportunity to share his/her experience at Cispus with a parent.
- Group Size** Entire class
Individual student and parent
- Time Required** 1 hour
- Materials** Pencil
Brainstormed list of ideas, concepts and experiences
Handout: *The Big Picture**
- Physical Setting** Classroom and student's home
- Process**
1. After returning from the Cispus experience, a whole class activity is conducted where students brainstorm ideas, concepts, experiences, and understandings from their time at Cispus.
 2. Ideas are recorded. Students classify ideas and define relationships between them. This can be done in an idea web or list format. The format is reproduced for student reference.
 3. Students take the formatted document home. They use the document to share their experience at Cispus with their parent(s).
 4. Parent and student together fill out *The Big Picture* form, summarizing the student's understanding of concepts and ideas. Students may illustrate concepts if they choose. The student and parent(s) sign the form before returning it to school.
 5. Students return *The Big Picture* forms, which are then collated, published, and distributed to students and their families.

* The form is a one page form with a scroll format printed on it defining the work space.

UNNATURAL OBJECTS TRAIL

Focus To help students be more observant of features along the trail by slowing down and really looking at surroundings. This is especially effective soon after arrival at camp.

Group Size Entire class or small group

Time Required 15-20 minutes

Materials 20 (or so) objects which would not naturally occur along a trail, ideas might include blocks of wood, yarn, strips of rubber, a house plant, plastic, hanger, anything - use your imagination!

Physical Setting Any section of trail where objects can be hidden. Covel Creek, Pond or River Trails would be appropriate.

- Process**
1. Before meeting the group the leader places the objects along the trail in areas visible from the trail, but not overly obvious. Placement could include: on the ground, in bushes and trees, wrapped around trees, hanging from above.
 2. Students walk the trail silently in single file observing and silently counting and noting locations of objects. Counting on fingers is helpful. At the end of the trail students share the number of objects they observed without telling what the objects were. Walking back along the trail in the opposite direction students again observe and count objects. The trail is walked a third time as the students and leader point out the objects. They can also be collected at this time. A discussion of careful observation techniques for the trail is a good closing.

Be careful not to leave even a single "unnatural object" to spoil the quality of the trail for others.

UP TO NOW... ***Reflections on the day***

Focus	To provide the student an opportunity to reflect on what was learned and experienced through the day, including feelings and goals. To provide the teacher with a vehicle to learn the feelings, concerns, and insights of the individual student.
Group Size	Entire class or group
Time Required	15-20 minutes
Materials	Pencil Clipboard Handout: <i>Up To Now...</i>
Physical Setting	Classroom or anywhere student can thoughtfully reflect on his/her experiences and feelings.
Process	<ol style="list-style-type: none">1. Teacher meets with class or group. Students discuss their experiences and reactions to the day's events. They share what they learned, what they enjoyed, what problems they had, goals for the next day, etc.2. <i>Up to Now...</i> sheets are passed out. Student finds a place where he/she can think and reflect on the day. The student fills out the handout.3. Completed handouts are collected by the teacher, then returned to the student for inclusion in the student's journal. They will not be graded, as they are a means of sharing ideas and feelings with the teacher.

Today is _____
(date)

UP TO NOW...

1. Today I learned...

2. The big idea for me today was...

3. The hardest thing for me today was...

4. I only wish...

5. Tomorrow I'll...

(signed)

WEATHER SCAVENGERS

- Focus** To think about and find examples of how weather affects plants, soil, people and animals.
- Group Size** Entire Class, divided into small groups.
- Time Required** 1 Hour
- Materials** Scavenger Hunt Clue Sheets
Bags
Pencils and paper
Clipboards
- Physical Setting** Cispus Trails -- Covell Creek or the Pond Trail are good.
- Process**
1. Tell your group that they will be going on a walk to see how many weather related things they can find.
 2. Give each team a clue sheet, a bag, a pencil, 4 sheets of white drawing paper and a clipboard.
 3. Explain that they can put some of their "weather finds" in their bags. The clues they can't collect they should draw or write a description of on their blank sheets of drawing paper.
 4. Set a time for all the teams to meet back at the starting point. Have each team show and explain what they have found for each clue. Afterward, have each team return any "finds" to where the items were found.

Note:

Before sending the group out, make sure to set your scavenger hunt guidelines, such as "Do not pick flowers, reach under logs with bare hands, go down to the river or wander away from the rest of the group". Set boundaries for the scavenging area.

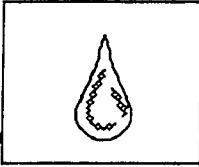


WEATHER SCAVENGER CLUE SHEET



1. Something bending toward the sun
2. Something hiding from sunshine
3. Something that may become part of a cloud
4. Something that tells you that the wind is blowing
5. Something left by the rain
6. A bad place for a person to seek shelter during a lightning storm
7. A place where icicles might form
8. A place where weather has damaged a building
9. A place to go where its cool
10. Sign of an animal that likes rain
11. A place where rain has moved the soil
12. A place that gets little sunshine
13. Something that won't bend in the wind
14. Something that reflects a lot of sunlight
15. Something that absorbs a lots of sunlight
16. Something that will soak up rain
17. Something that makes rain spatter
18. Something that protects people from rain
19. Something that uses sunlight or wind or water to work
20. Something that smells better after a rain shower
21. A good windbreak
22. Something shaped by wind or water
23. Something the color of the sky
24. Something the color of the snow
25. Something that would make snow melt
26. A sign of lightning damage
27. Something that bends in the wind





WEATHER BY THE CHART

CLOUDS

CUMULONIMBUS	1
STRATUS	2
LOW, THICKENING	3
HIGH CLOUD	4
CLOUDS RISING	5
CLEAR	6
CUMULUS	7

WINDS

N	2
NE	1
E	1
SE	1
S	2
SW	3
W	3
NW	4
VARIABLE	3
CALM	3

PRESSURE

VERY LOW AND DROPPING	1
LOW AND DROPPING	2
LOW AND FLUCTUATING	3
AVERAGE AND DROPPING	3
HIGH AND DROPPING	3
VERY HIGH AND DROPPING	4
AVERAGE, FLUCTUATING	5
LOW, RISING	6
AVERAGE AND RISING	7
HIGH AND RISING	8
VERY HIGH AND RISING	9

WEATHER FORCASTER

3	Heavy precipitation within six hours
4	Precipitation within 6 -12 hours, little temperature change
5	Brief precipitation withing 18 hours, rise in temperature
6 or 7	Precipitation within 24 hours, rise in temperature
8	Precipitation within 30 hours, no temperature change
9 or 10	Increase in clouds
11	Little precipitation in next 24 hours
12	Winds with possible showers
13 or 14	Immediate precipitation, then clearing and cooler
15	Showers or flurries, then clearing and cooler
16	Clearing in a few hours
17	Partly cloudy, no temperature change
18	Fair with little change in next 36 hours
19	Mostly fair with rising temperatures
20	Continued fair

WEATHER WIZARD
TEAM RECORD SHEET

PRESSURE TEAM _____

WIND TEAM _____

CLOUD TEAM _____

TOTAL _____

OUR FORECAST

DATE