

Lesson Preparation and Materials

Preparation:

- Gather all lesson materials (check out cameras and books from media center)
- Mark off areas outside using colored flags or orange safety cones (one area for each group).
- Make all charts and direction cards for the kits (e.g., job cards, safety rule cards, question card, etc.)
- Prior to the lesson, notify students that they will be going outside and need to wear appropriate shoes and clothing depending on the time of year and weather.

Lesson Materials:

- Whiteboard/dry-erase marker
- Computer (with internet access)
- Smartboard
- YouTube video: *The Salamandar Room* (Elf Academy 2012: www.youtube.com/watch?v=hZrtzCA9pmY)
- Students' science journals
- Pencils
- Sample pictures showing evidence of animal life (e.g., spider web, bird droppings, bird nest, tree stump)
- Different-color cones and flags for each group
- Lab Kit #1
- Lab Kit #2

Kit # 1 consisted of one of the following items for each group:

- Direction card
- T-chart on a clipboard for noting all evidence found
- Student jobs card
- Safety rules card
- Pencils
- Digital camera (one per group)

Kit # 2 consisted of the following items:

- One question card per group stating “*What can we do to change the area around our school so your animal will be able to live here? Are there ways to protect the environment so your animal can live here?*”
- Pictures of animals (e.g., frog, penguin, squirrel, manatee, penguin, alligator); each group gets a different animal
- A selection of related books from the Media Center on a table for all students to access. Students are expected to collect the texts that they need to answer their investigation question. *Frogs!* (Bishop 2008), *It's a Frog's Life!* (Clyne 1996), *Penguins* (Holmes 2006), *About Penguins* (Sill 2009), *Hello Squirrels! Scampering through the Seasons* (Glaser 2006), *The World of Squirrels* (Coldrey 1986), *Manatees* (Walker 1999), *Face to Face with Manatees* (Skerry 2010), *Fun Facts About Alligators!* (Bredeson 2009)
- Each student to get out their science journals
- One set of markers for each group

- Poster board for each group

Trade book resources:

Clyne, D. 1996. *It's a frog's life!*. Sydney, Australia: Allen & Unwin.

Coldrey, J. 1986. *The world of squirrels*. New York: Gareth Stevens Publishing.

Bishop, N. 2008. *Frogs*. New York: Scholastic Nonfiction.

Bredeson, C. 2009. *Fun facts about alligators!* Berkeley Heights, NJ: Enslow Publishers.

Glaser, L. 2006. *Hello squirrels!* Minneapolis, MN: Millbrook Press.

Holmes, K. J. 2006. *Penguins*. North Mankato, MN: Capstone Press.

Richardson, A. 2005. *Alligators*. North Mankato, MN: Capstone Press.

Sill, C. 2009. *About penguins*. Atlanta, GA: Peachtree Publishers.

Heights, NJ: Enslow Publishers.

Skerry, B. 2010. *Face to face with manatees*. Margate, FL: National Geographic.

Walker, S. M. 1999. *Manatees*. Minneapolis, MN: Carolrhoda Books.

Group Evidence and Responses

	Evidence	Why do the animals you found evidence of live around our school?	What kinds of things are available to animals around our school that make it possible for them to live in their habitat?
Group 1	Spider web, squirrel nest, birdhouse, bird droppings, nest, anthill	The birds and squirrels like the trees.	Leaves, dirt, trees, and food.
Group 2	Spider web, bird nest, nut, worm, moth, ants	Worms live in the ground and ants, too. They can find what they need here.	Stuff to make a house and food to eat.
Group 3	Bird nest, acorns,	The birds live in the	Trees, acorns, and

	spiders, anthill	trees and eat the acorns. Spiders make webs in the trees.	leaves.
Group 4	Bird nest, acorn shell, nut, ant hill, bird dropping, bug, spider web, nut shell	Birds live here because they can build a nest or live in a birdhouse. Ants find dirt to build a home.	Food, nests, and leaves.
Group 5	Stick, bird droppings, bird nest, grass, leaves, trees	They can find the things they need.	Things to make a nest and food to eat.

Direction Card

Brian found a salamander while exploring in the forest. Let's explore around the school and look for evidence of animal life. Take pictures of the things you see.



1. Read the directions carefully.
2. Read the Jobs Card carefully.
3. When you have finished reading the directions, make sure each person in your group has a role.
4. Read the Safety Rules Card carefully and follow the rules.
5. Make sure you have all the items needed for Kit #1 and bring them outside with you.
6. Go to your area and start searching for evidence of animal life. You have 15 minutes to search for this evidence.
7. Make sure you stay in your area and work with your group members. Take turns using the camera.
8. As you find evidence, fill in your T-chart from Kit #1.

J O B S

Reporter: I will report the evidence back to my Classmates.



Recorder: I will fill in the T-Chart during the exploration.



Camera Holder: I will hold the camera between pictures. I will make sure everyone gets a turn to take a picture.



Safety Rules

- No running or playing outside.
- Stay in your area.
- No touching evidence or animals.
- Watch where you walk.
- Be careful when holding, using or walking with the digital camera.
- Do not pull or fight over the camera.
- Tell the teacher if you are allergic to any animals or plants.
- Tell the teacher if you get hurt while outside.



Group responses for the extension activity

	Animal	What the animal needs in its' habitat:

Group 1	Squirrel	Things to make a nest, food (e.g., nuts, apples, berries), trees, other squirrels
Group 2	Manatee	Plants, ocean, and other manatees
Group 3	Alligator	A pond, grass, snakes, birds, land, and alligators
Group 4	Frog	Lilly pads (i.e., a place to hide or find food), water, land, grass, other frogs, and insects
Group 5	Penguin	Cold water, fish, and other penguins

Sample rubric for assessing group illustrations and presentations

CATEGORY	4	3	2	1
Participation	Used time well in lab and focused attention on the activity.	Used time pretty well. Stayed focused on the activity most of the time.	Did the activity but did not appear very interested. Focus was lost on several occasions.	Participation was minimal OR there was no participation at all from group members
Safety	Activity was carried out with full attention to all safety procedures. There was no safety threat to any individual. No safety rules need to be reviewed.	Activity was generally carried out with attention to safety procedures. There was no safety threat to any individual, but one safety procedure needs to be reviewed.	Activity was carried out with some attention to safety procedures. There was no safety threat to any individual, but several safety procedures need to be reviewed.	Safety procedures were ignored and/or some behavior posed a threat to other students.
Data Collection	All data collected was accurate. Digital images were clear and easy to understand. Multiple pieces of evidence were collected.	Most of the data collected was accurate. There was an attempt to collect multiple pieces of evidence. Only one or two digital images were not clear.	Some of the data collected was accurate. There was an attempt to collect evidence. However, more than two of the digital images were not clear.	Data was either not collected or inaccurate.
Understanding	Students have a strong	Students have a strong	Students did not have a strong	Students did not understand

	understanding of content. They were able to make clear connections to evidence.	understanding of content but were not able to make connections to evidence collected. Students needed prompting to use evidence to inform their explanations.	understanding of content and required a lot of prompting to use evidence to inform their explanations.	content and were not able to make connections to evidence with prompting.
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