



LEVEL 1 | BOOK 19 | READABILITY LEVEL 2.5

A Simple Matter of Self-Defense

Story Summary

Skunk causes trouble for the people because he can kill enemies by spraying them with a bad-smelling liquid. When he chases and frightens some people they heat a large boulder and roll it down on top of Skunk. Skunk does not die but he can no longer kill with the bad smelling liquid and he now has a long stripe burned into his fur.

Authors

A Muckleshoot legend as told by Clarence and Ernest Barr

Illustrator

Debra Barr

Grade Level

2–4

Estimated Instructional Time

Five days (integrated science, reading, writing, and art)

Materials/Resources Needed

- Class set of Skunk
- Fiction and non-fiction library books on animal adaptations
- Reference materials
- Pictures of animals that illustrate defenses
- KWL chart on chart or transparency (may want to make student copies as well)
- 4" x 6" index cards or tag board
- Markers, paints, or crayons
- 11" x 17" piece of wallpaper
- Varied wallpaper scraps
- 8.5" x 11" white drawing paper
- A roll of satin ribbon or silk cording
- Glue stick
- Hole punch
- Internet access

Overview of the Lesson

Students engage in integrated learning activities that build observation, categorization, and compare/contrast skills as well as knowledge of different animal defensive adaptations. Subjects: reading, science, writing, and art.

Student Objectives | Art

- Students will use artistic elements to create illustrations of specific animals and their defensive adaptations.
- Students will create a wallpaper book on animal defenses.

Student Objectives | Reading

- Students will retell a story in correct sequence.
- Students will create word cards for the story and also science vocabulary derived from research.
- Students will work through K-W-L strategy to activate prior knowledge and to identify research questions about animal defenses.
- Students will increase vocabulary related to animals and their defensive adaptations.
- Students will compare and contrast information about animal defenses.
- Students will use reference materials to gather information about specific animal defenses.

Student Objectives | Expository Writing

- Students will maintain a science journal for recording both primary and secondary data on animal defenses.
- Students will develop an animal defense book that includes descriptions of animals in specific habitats and their particular defensive adaptations.

Student Objectives | Science

- Students will identify questions to investigate related to animal defense adaptations.
- Students will gather information from lessons and reference materials and present this information in a short book.
- Students will recognize that animals have different adaptations to help them survive in their environments.
- Students will describe a habitat and the adaptations that animals must make to survive in the habitat.

Teacher Background

"Over time, animals have adapted to, or changed to better suit, their environments. These adaptations include specializations for eating (such as thick beaks on seed-eating birds) and swimming (the webbed feet of a beaver). In many cases, animals have also adapted to protect themselves from being eaten by predators.

Adaptations are changes that become "permanent" because animals or plants with those adaptations survive long enough to reproduce and have babies with the same advantages. Over time, animals or plants with a specific trait begin to outnumber those animals or plants without the adaptation. Eventually, all animals or plants of that type have the adaptation. This is called natural selection.

But just like animals have defensive adaptations, predators, animals that eat other animals or plants, can also develop their own adaptations to 'get around' their prey's defensive mechanisms. For example, milkweed plants have defense mechanisms that includes toxins (poisons) in their stems and leaves that can kill many insects who try to eat them. Monarch butterflies have adapted to this defense and now can survive eating the toxins. In the animal world, there are clams. They have hard shells covering their bodies to protect them, a pretty good defensive adaptation. However, starfish have adapted to 'get around' the shell. They wrap their legs around the clam, attached to the shells by suckers on the bottom of their legs. Then they pull apart the shell to expose their prey and eat it. Sea urchins (a sea creature that has a hard shell covered with spines) also have a good defense. However, predators such as the trigger fish have learned to "blow over" the urchin with a jet of water and expose a vulnerable spot underneath.

Scientists like to study an animal's adaptations because adaptations help them figure out how well the animal can survive changes in its environment. If forest land is being cleared for farming, the animals at most risk would be those highly adapted to live in the forest and no where else."

Instructional Plan - Learning Activities

SESSION #1A

Vocabulary

Skunk, village, people, odor, capable, enemy, angry, group, chasing, frightened, destroy, heated, edge, burned, stripe, caused

- Have a chart with the important vocabulary on display while the story is read.
- Read Skunk aloud to students, periodically examining illustrations, asking for connections and predictions.

- Have students pair up to retell the story. Then back in the whole group record the events on chart paper as individual students share the retellings.
- Have students respond in their journals to: What would you have done to defend yourself against Skunk if you were one of the village people in the story? Do a popcorn share.

SESSION #1B

Preview the story for important, useful words. Select activities to provide for multiple exposures to challenging vocabulary. Suggested terms: odor, capable, enemy, angry, chasing, frightened, destroy, heated, edge, burned, stripe, caused.

Engage students in activities that will lead to a thorough understanding of the terms in the story. (Suggestions on pages 105–108 Level I Teacher's Manual). Example: Have students choose one of the vocabulary terms that they find interesting and create a word card.

Word Cards

- On an index card (4" x 6" or 5" x 7") students write the vocabulary term in the center.
- In the upper left corner, they can write a synonym/antonym/part of speech
- In the top right corner, a definition in their own words
- In the bottom right corner, a sentence that conveys the meaning
- In the bottom left corner, a picture depicting the word meaning
- Post the word cards on a word wall or place in a word box

SESSION #2A

Have students reread Skunk with a partner. Review the charted retelling of Skunk with students. Add any new information students have derived from their paired reading.

SESSION #2B

Vocabulary

Defense, adaptation, camouflage, chemical, mimic, predator, prey, habitat

- Using a K-W-L chart have students share what they know about skunks and how their knowledge fits with what the story says about skunks. Possible probing questions: What is the purpose of the skunk's strong odor? (protection, scare enemies, defense) How do other animals (and humans) protect themselves from enemies or harsh environments? (human--technology, claws, beaks, camouflage) List some animals on the chart (students should copy on theirs) with their defenses.
- Ask students what they would like to find out about animal defenses in different habitats. Record

questions on the W part of the chart. Questions may include: What is the most common habitat for this animal? What dangers does the animal have to contend with in this environment? What adaptations has the animal made to survive in its habitat?

- Put habitat names and animal names on slips of paper in a box. Have students take a name of an animal from the box. Students may also work in pairs. Using reference materials provided and specific Internet sites students will find answers to the questions raised during the K-W-L activity. Provide class time so students will have both materials and the teacher as resources.
- Students should write answers to their questions in their science journals.
- Students can also create word cards for the vocabulary in this lesson.

SESSION #3

- Return with students to the W portion of the K-W-L chart and have students share what they found out from books and the Internet.
- Record this information on the L part of the chart and review with students. Add to or elaborate on what students have found out to be sure the learning is accurate.
- Have students copy the items on the L section of their charts.

SESSION #4

- Read What Do You DO When Something Wants to Eat You?
- To reinforce what students have been learning develop a graphic organizer for animal defenses.

SESSION #5

- Provide each student or student pair with two pieces of white drawing paper.
- Instruct the students to draw a picture of their animal in its habitat on one of the sheets of paper (students could also locate a picture of the animal and habitat and paste it on the paper).
- Students then will write about the defenses their animals use to survive in their habitats (can be done on lined paper and glued so children will have their best copy). Papers will be facing pages in the wallpaper book.
- Create a title page and table of contents for the book.
- This lesson generates a class book but it is possible to have students do individual Animal Defense books.

EXTENSIONS

Have student volunteers visit other classrooms to share the Animal Defense Book. Have interested students create an Animal Defense match game.

Student Assessment/Reflection

K-W-L completed chart, animal defense wallpaper book, science journal, word cards, graphic organizer

SUGGESTED TEACHER RESOURCES

Interactive human and animal habitats game for children ages 5–9. Includes: Antarctic, desert, grassland, forest, ocean, and tropical rainforest. http://www.uen.org/utahlink/activities/view_activity.cgi?activity_id=3803

***Curious Clownfish*, by Eric Maddern; illustrated by Adrienne Kennaway (1990)**

A baby clownfish wants to leave the protection of the anemone whose stinging tentacles he keeps clean. During his adventure exploring a coral reef he encounters a sea slug, porcupine fish, dragon fish, crab, cuttlefish, and a terrifying eel. www.lhsgems.org/GEM110.html

Eric Carle's Animals Animals compiled by Laura Whipple; illustrated by Eric Carle (1989)

Anthology of more than 50 poems from many cultures on both wild and domestic animals illustrated with Carle's joyous color collages. The poems cover a wide range of topics, and some, such as those on the barracuda, porcupine, and narwhal, focus particularly on animal defenses. www.lhsgems.org/GEM110.html

***The Mixed-Up Chameleon*, by Eric Carle (1975)**

A bored chameleon wishes it could be more like all the other animals it sees, but soon decides it would rather just be itself. Protective coloration (the chameleon changes color according to the surface on which it rests) and energy (when the chameleon is warm and full, it turns one color, when cold and hungry, it turns another) are woven into the story. www.lhsgems.org/GEM110.html

***Animals in Disguise*, by Anita Ganeri (1995).**

"Text and illustrations explore the world of camouflaged animals. A picture-strip on each page follows an animal through a particular activity incorporating camouflage."

— California Academy of Sciences Library

***Disguises and Surprises*, by Claire Llewlyn (1996)**

Text and illustrations explore the world of camouflaged animals. A picture-strip on each page follows an animal through a particular activity incorporating camouflage.

What Do You Do When Something Wants to Eat You, by Steve Jenkins (1997)

The artist's cut-paper collages on textured backgrounds show both attacker and potential prey on one page, and a close-up of the animal escaping on the next.

Animals in Disguise, by Martine Duprez (1994)

Animals use their coloring to hide in the wild.

Hidden Animals, by Millicent Ellis Selsam (1969)

Animals survive by making themselves almost invisible—can you find these hidden animals? Mimicry and Camouflage (Nature Watch Series), by Jill Bailey (1988) See how mimicry and camouflage work together to help animals defend themselves in the wild.

Nature's Tricksters: Animals and Plants That Aren't What They Seem, by Mary Batten (1992)

Hiding Out, by James Martin (1993)

Colorful pictures and descriptions of many different animals in the wild that must HIDE to SURVIVE!