

# Sculpin Parts of Speech Poem

**Subject:** Language Arts

**Objectives:** Students will be able to review parts of speech. 2. Write in a variety of formats to record, generate and reflect upon ideas. 3. Write and edit for correctness and clarity.

**Materials:**

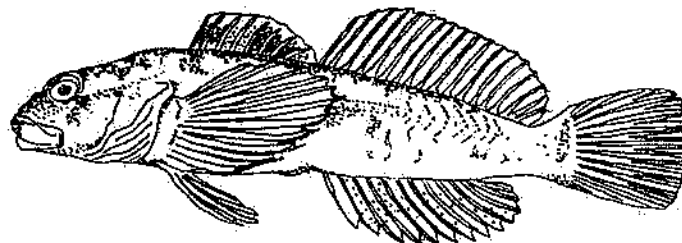
- Wildlife Worksheet*
- pencils and paper

**Procedure:**

1. Review parts of speech with students.
2. Introduce Parts of Speech poems to students. As a class, write a sample poem about an animal of your choice. You may want to write a couple samples.
3. Hand out *Wildlife Worksheet*.
4. Ask students to write a Parts of Speech poem about a sculpin using the information they gained through reading *Wildlife Express*.
5. Give each student a small piece of white construction paper for their final drafts. They should illustrate, or add a border to the poem, as well.
6. Use a rubric such as the example below to assist in grading the poem:

Line 1	1 point
Line 2	3 points
Line 3	3 Points
Line 4	1 point
Line 5	1 Point
Overall	1 Point
Total	10 points

7. Display the students' work, and/or send a few of the poems to the following address:  
Wildlife Express  
P.O. Box 25  
Boise, Idaho 83707



# Wildlife Worksheet

## Parts of Speech Poem

Use your knowledge of sculpin and parts of speech to write a poem.

### Parts of speech review:

*Noun:* a person, place, thing or idea.

*Adjective:* a word that describes a noun, (tells how many, what kind, which one)

*Conjunction:* a connecting word (and, or & but)

*Verb:* describes an action or state of being.

*Adverb:* describes a verb or another adverb (tells when, where or how)

### Directions for a Parts of Speech Poem:

Line 1: Noun

Line 2: Adjective, conjunction, adjective

Line 3: Verb, conjunction, verb

Line 4: Adverb

Line 5: Rename title

Your turn!

---

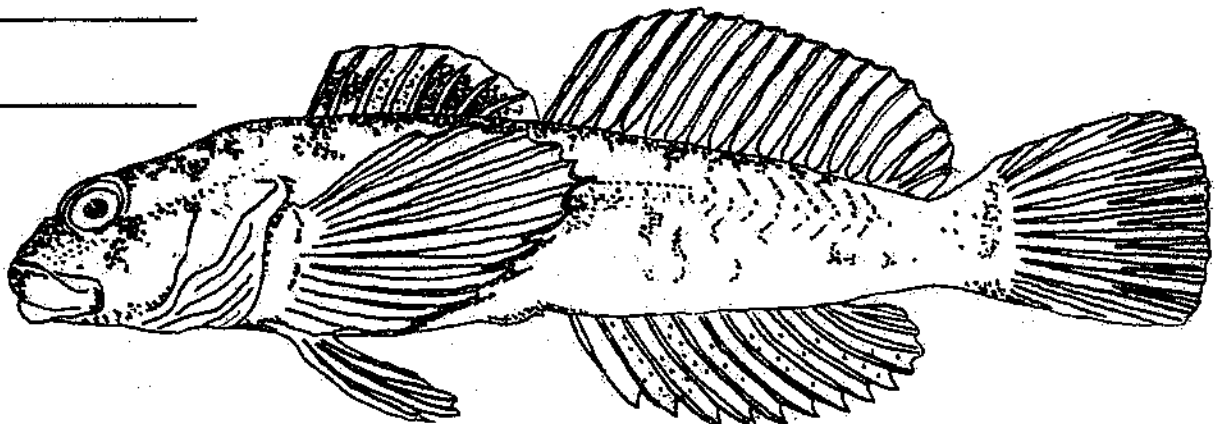
---

---

---

---

---



# What Color is Camouflage?

**Subject:** Science & Language Arts

**Objectives:** *Science:* Students will be able to discuss camouflage as an animal adaptation and color a sculpin to blend in with its environment.

*Language Arts:* Students will be able to write a fictional story using a story map.

## **Materials:**

- coloring supplies
- scissors
- What Color is Camouflage? by Carolyn Otto (optional)
- What Color is Camouflage? & Animal Camouflage Story Map Worksheets
- directions for making a book
- cereal boxes
- construction paper & writing paper

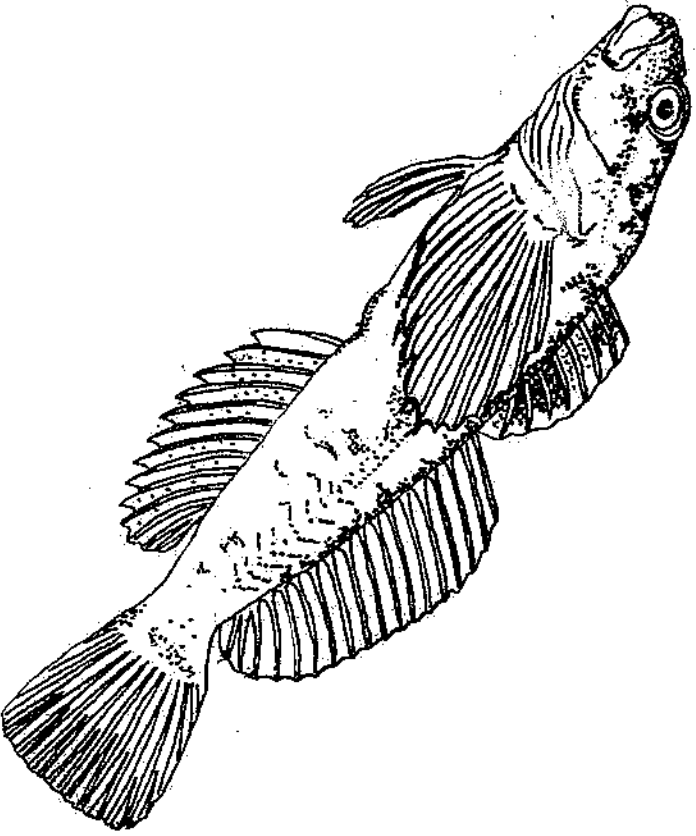
## **Procedure:**

1. Review animal adaptations. Discuss different ways adaptations help animals to survive in the wild. Give examples of animals that use camouflage. Is camouflage helpful to predator or prey, or both?
2. How does camouflage help a sculpin? What eats a sculpin?
3. Hand out the What Color is Camouflage? Worksheet. Have students color the sculpin to match something in the classroom. When they are done coloring, instruct them to cut out the sculpin.
4. Divide the class into two teams: sculpin and trout.
5. Trout leave the room while the sculpin hide their cutouts in a place where the cutouts are not likely to be seen but not hidden "in" something.
6. Allow the trout to come in and look for the sculpin cutouts. Give 3 minutes to find all the cutouts.
7. Switch team players and play again.
8. Discuss successes and difficulties.
9. Now that you have the students' attention and excitement about camouflage, tell them they will be writing a fictional story about animal camouflage. Use the Animal Camouflage Story Map to help them plan their story. There are many different angles they could take on this story. Students will enjoy coming up with their own. Share the following suggestions to get them going: The Zebra Who Lost His Stripes, Playing Hide and Seek, Who's Hiding?, Stripes are Better than Spots, Sneaky Sculpin.
10. When students are finished with rough drafts, peer edit.
11. Create books using directions found on the following page.
12. Write final drafts in books with pictures and SHARE!

WILDLIFE WORKSHEET

**What color is camouflage?**

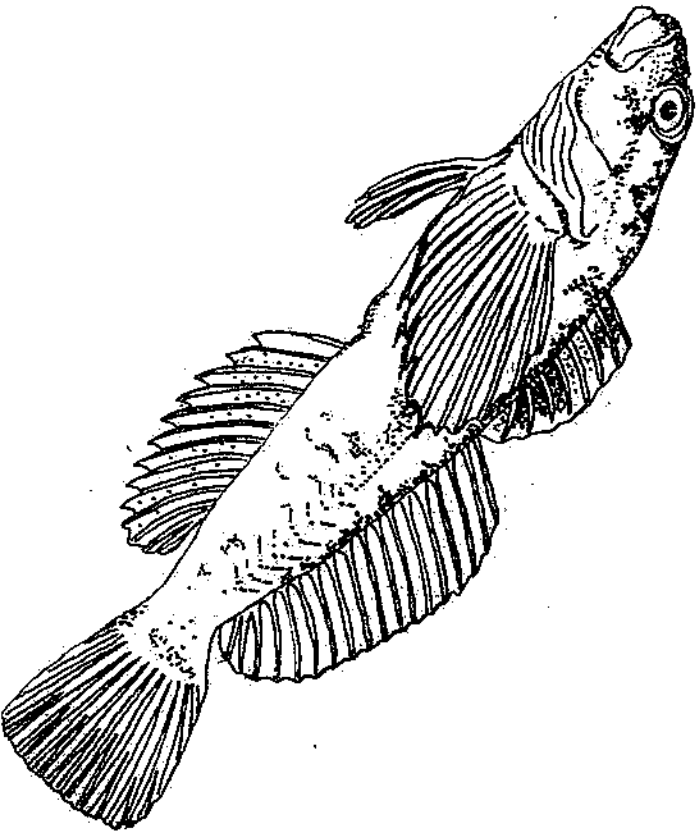
Where could this sculpin hide??? Color the sculpin below to be camouflaged with something in the classroom. When finished, cut it out. Your teacher will give you further directions. Listen!



WILDLIFE WORKSHEET





**What color is camouflage?**

Where could this sculpin hide??? Color the sculpin below to be camouflaged with something in the classroom. When finished, cut it out. Your teacher will give you further directions. Listen!



# Animal Camouflage Story Map

Writing a story is easy if you plan. Use the story map below to plan your story about animal camouflage. Remember, your *fictional* story can have animals that talk, have feelings, learn lessons, and make friends just like people. Brainstorm ideas with friends. Have Fun!

<p>Setting: time &amp; place</p> 	<p>Characters</p> 
<p>Problem or Conflict</p> 	<p>Solution</p> 

Become an author!

1. Plan your ideas.
2. Complete the story map with your ideas.
3. Begin writing your rough draft.
4. Edit with peers and teacher.
5. Publish!

# Book Making Instructions

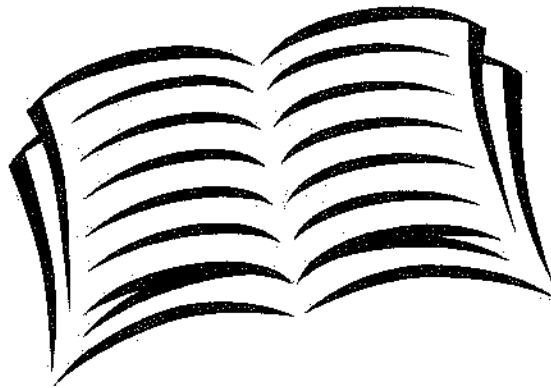
**A.** Cut two equal sizes of cardboard (cereal or cracker boxes work well).

**B.** Place two pieces of cardboard in the middle of a piece of construction paper about  $\frac{1}{2}$  inch apart. Make sure you have about 2 inches of construction paper around the edges of the cardboard. (If you're using a cracker or cereal box and a light piece of construction paper, you should glue the cardboard with the printed side up so the printed side doesn't show through on the front.) Glue cardboard down with a glue stick (regular glue leaves lumps on the front). Wrap the rest of the construction paper around the cardboard, like a package folding edges neatly. Tape this down with masking tape.

**C.** Glue another piece of construction paper down to cover the cardboard. (It may need to be a darker color so the printed cardboard doesn't show through.) This is the inside of your book. Fold in half, so covered cardboard pieces form the front and back covers to your book.

**D.** Figure out how many pages you want in your book and use a paper cutter to cut the paper to fit inside the book (folded in middle).

**E.** Sew the paper down the middle of the book cover either by hand or with a sewing machine. Moms are usually happy to volunteer to do this. It doesn't hurt their sewing machine! Be sure they don't use too tiny of a stitch.



# Fashion a Fish

## Summary

Students design fish with unique forms, shapes and behaviors to discover the benefits of these adaptations.

## Objectives

Students will...

- describe adaptations fish have to their environments
- describe how adaptations can help fish survive in their habitats
- interpret the importance of adaptations in animals

## Materials

- one copy of adaptation cards (additional copies with a class of more than 30); cut and separate the cards into groups of four cards each: one coloration, one mouth type, one body shape, and one reproduction in each group
- paper or poster board
- markers, colored pencils or paint

## Background

All animals are the product of countless adaptations that occurred over time. Adaptations are features that increase the animals' likelihood of surviving in their habitat. When a habitat changes, either slowly or catastrophically, animals must adapt to those habitat changes to survive. As those adaptations become part of the fish's design, the fish becomes better suited to the habitat in which it lives. Because of the variety of conditions within each habitat, many different fish can live together and flourish. Some species have adapted to such a narrow range of habitat conditions that they are extremely vulnerable to change. These species are usually more susceptible than other animals to death or extinction. In this activity, students design a fish based upon certain adaptations.

## Procedure

1. Begin a discussion by asking the class to define what the word adaptation means. An adaptation is a special feature of an organism that increases its chance of survival in its habitat. How do species adapt? Those individuals that are best equipped for life in a specific habitat are more likely to survive to the age where they can reproduce. Therefore, their genes and characteristics are more likely to be carried on to the next generation.
2. Assign students to find a picture or make a drawing of a species of animal that has a special adaptation.

### Grade Level

3-12

### Subject Areas

Science, Visual Arts

### Time

30-45 minutes

### Vocabulary

adapt, adaptation, behavioral adaptation, camouflage, characteristic, coloration, habitat, species, structural adaptation

For example: a picture of a giraffe with a long neck for reaching vegetation in tall trees, or an owl with large eyes that gather light to aid with night vision.

3. Conduct a class discussion on the value of different kinds of animal adaptations. As part of the discussion, ask the students to identify different kinds of adaptations in humans.
4. Collect the students' pictures or drawings of adaptations. Categorize them into the following groups:
  - protective coloration and camouflage
  - body shape or form
  - mouth type or feeding behavior
  - reproduction or behavior
  - other (one or more categories the students establish, in addition to the four above that will be needed for the rest of the activity)
5. Break up the classroom into five groups. Pass one complete set of cards to each group of students. There might be five groups with four to six students in each group.
6. Review the adaptations by asking each group what they think the advantages are to the adaptations they were given. Record a list of the advantages to each adaptation on the board.
7. Ask the students to "fashion a fish" from the characteristics on the cards they received. The fish will be fictitious and may not look like a "real" fish. Each group should:
  - create an art form that represents their fish
  - name the fish
  - describe and draw the habitat for their fish
8. Ask each group to report on the attributes of the fish they have designed, including identifying and describing its adaptations. Ask the students to describe how this kind of fish is adapted for survival.
9. Ask the students to make inferences about the importance of adaptations in fish and other animals.





## Evaluation

1. Grade the students on their presentations of their drawings to the class and their explanations of the adaptations they incorporated. Is the habitat they drew their fish in realistic for the adaptations they were asked to incorporate in the fish?
2. Have the students invent an animal that would be adapted to live in their community or a different and exotic habitat of their choice. Consider mouth, shape, coloration, reproduction, food, shelter, and other characteristics. Draw and describe the animal. Older grades may write a natural history of the animal – also describing social interactions, life cycle, and general life style.

## Extension

1. Take an adaptation card from any category and find a real fish with that adaptation.
2. Look at examples of actual fish. Describe the fish and speculate on its habitat by examining its coloration, body shape and mouth.

*Adapted from Project WILD Aquatic Activity Guide  
copyright by the Council for Environmental Education.*





Adaptation	Advantage	Examples
<b>Mouth</b>		
Sucker-shaped mouth	Helps to feed on very small plants and animals on bottom	Sturgeon, sucker, carp
Elongated upper jaw	Helps to feed on prey it looks down on	Channel catfish
Hard plate on lower jaw	Helps to scrape algae off of rocks and the bottom	Chiselmouth
Duckbill jaws	Helps to firmly grasp prey	Northern pike, muskellunge
Extremely large jaws	Helps to completely surround prey	Largemouth bass, grouper
<b>Body Shape</b>		
Torpedo shaped	Increases the speed of the fish	Muskellunge, trout, salmon, tuna
Flat bellied	Allows fish to lay on bottom	Sculpin, catfish, sucker
Snake-like	Streamlines the fish for long distances	Pacific lamprey
Vertical disk	Allows the fish to move easily between vertical plants and feed above or below	Pumpkinseed, crappie, bluegill
Large, spiny dorsal fin	Makes fish look larger, prevents predator attack from behind	Yellow perch
<b>Coloration</b>		
Light-colored belly	Camouflages so that predators have difficulty seeing it from below	Sockeye salmon, perch, sturgeon
Dark upper side	Camouflages so that predators have difficulty seeing it from above	Bluegill, crappie, flounder
Vertical stripes	Allows the fish to hide in vegetation	Tiger muskellunge, pickerel, bluegill
Spotted	Helps the fish hide in rocks and on the bottom	Rainbow trout, cutthroat trout
Mottled coloration	Helps the fish hide in rocks and on the bottom	Black crappie, sculpin, burbot
<b>Reproduction</b>		
Eggs deposited in nest on bottom	Hides eggs from predators, keeps them oxygenated	Bull trout, salmon, most minnows
Defends spawning territory	Eggs are protected by adults	Longnose dace, bass
Cavity spawners	Eggs are hidden from predators	Bullhead catfish
Eggs attached to vegetation	Eggs remain stable until hatching	Carp, perch, northern pike
Migrate to spawn in groups	Helps mix genes to maintain diversity in population	Burbot, grouper



# Fish Adaptation Cards

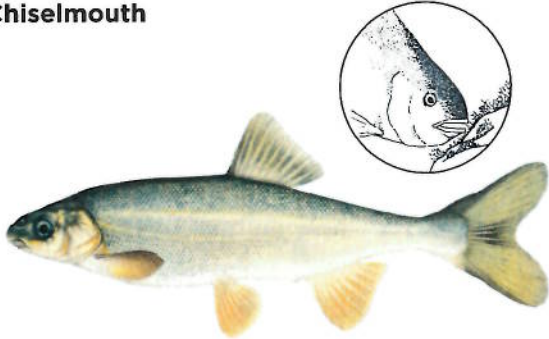
**Mouth/Feeding:**  
sucker shaped mouth  
**Sturgeon**



**Mouth/Feeding:**  
elongated upper jaw  
**Channel catfish**



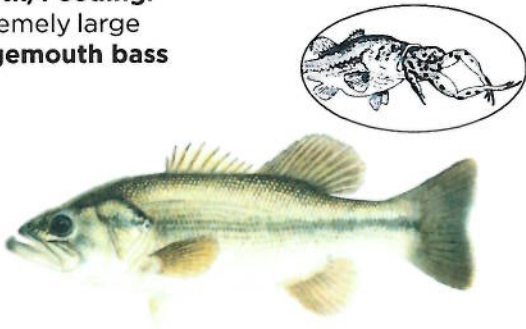
**Mouth/Feeding:** hard plate on lower jaw  
**Chiselmouth**



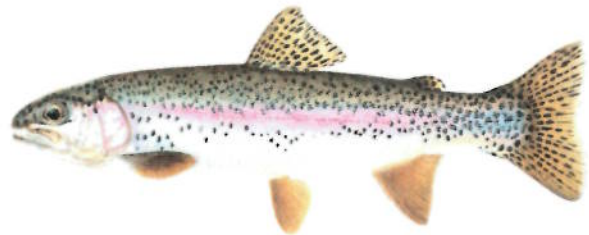
**Mouth/Feeding:**  
duck-billed jaws  
**Northern pike**



**Mouth/Feeding:**  
extremely large  
**Largemouth bass**



**Body shape:**  
torpedo shaped  
**Rainbow trout**



**Body shape:**  
flat bellied  
**Sculpin**



**Body shape:**  
snake-like  
**Pacific Lamprey**



# Fish Adaptation Cards

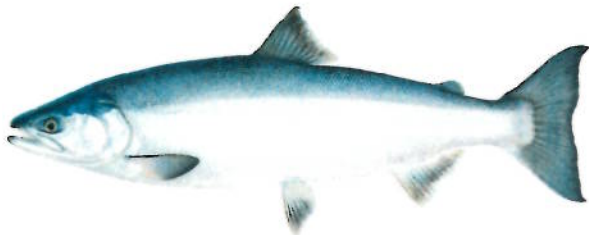
**Body shape:**  
vertical disk  
**Bluegill**



**Body shape:**  
spiny dorsal fin  
**Yellow perch**



**Coloration:**  
light-colored belly  
**Salmon**



**Coloration:**  
Darker on top  
**Bluegill**



**Coloration:**  
vertical stripes  
**Tiger muskellunge**



**Reproduction:** eggs deposited in bottom nests  
**Bull trout**



**Coloration:**  
mottled  
**Black crappie**



**Coloration:**  
spotted  
**Rainbow trout**





## Fish Adaptation Cards

**Reproduction:**  
defends spawning territory  
**Longnose dace**



**Reproduction:**  
cavity spawner  
**Bullhead catfish**



**Reproduction:**  
eggs deposited on vegetation  
**Northern pike**



**Reproduction:**  
migrates to spawn in groups  
**Burbot**

