

## Willow Ptarmigan – Master of Disguise

Developed by: Cathy Walters

Discipline / Subject: science, reading, and art

Topic: Students will see how colorings and markings make an animal better adapted to its environment

Grade Level: PK-5

Resources / References / Materials Teacher Need

- Toothpick Experiment
- *Gone Again Ptarmigan* by Jonathan London and illustrated by Jon Van Zyle
- 4"-5" white construction paper cutout of willow ptarmigan
- 9"x12" or 12"x18" white construction paper
- one pie tin filled with brown paint
- one pie tin filled with beige or light brown paint
- lots of 2"x2" pieces of sponge for painting

Lesson Summary: After conducting the toothpick experiment and reading *Gone Again Ptarmigan* students will see in this art activity how important camouflage is to Alaska's state bird, the willow ptarmigan and other Arctic animals. (Other Arctic animals that change their coats or feathers with the season are the Arctic fox, the short-tailed weasel (known as ermine in their winter coats), the snowy owl, and the snowshoe hare. Polar bears keep their camouflage all year long!)

Standards Addressed: (Local, State, or National)

Alaska state standards:

Science C – Concepts of Life Science

2. A student who meets the content standard should develop an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms

A.6 Students will integrate two or more art forms to create a work of art

Learning Objectives:

The student will:

- understand why animals need to adapt to their environment
- see how colorings, markings, and physical actions make an animal better adapted to its environment

Method of Assessment for Learning:

Teacher observation

Procedural Activities:

1. Conduct the Toothpick Experiment and discuss the student's findings.
2. Read *Gone Again Ptarmigan* to your students.
3. Willow ptarmigan sponge painting: Give each child a piece of 9"x12" or 12"x18" white construction paper and a white 4"-5" cutout of a willow ptarmigan. Double Scotch tape, attach to back of ptarmigan cutout, and lightly press onto paper. Ask students, "Is it easy or hard to see the willow ptarmigan on white paper?"
4. Demonstrate how to sponge paint on and around the willow ptarmigan and completely sponge paint the entire paper. Carefully peel off the ptarmigan to show students the

dramatic results. They will see the winter, snow white ptarmigan in a field of summer browns. The bird would be easy prey if he stayed white in the summer.

5. Distribute sponges and pie pans with light brown and dark brown paint and have students sponge paint on and all around the bird, completely covering the paper. Allow paintings to dry and peel off the bird cutout the next day. Ask, "Is the willow ptarmigan in his winter plumage easy or hard to see on the brown paper?" Reattach the cutout before sending the artwork home.
6. Discuss with students that protective coloring often helps animals hide from their predators.

**Materials Students Need:** 9"x12" or 12"x18" white construction paper, 4"-5" white willow ptarmigan cut out of construction paper, sponges, and paint for the art project.

**Technology Utilized to Enhance Learning:** There are many good sites about the willow ptarmigan. Please Google for an entire listing. My favorite videos of Alaska's state bird are on YouTube.

**Other Information:** Be sure to include information on predators and prey.

**Modifications for Special Learners/ Enrichment Opportunities**

For enrichment, you could divide the class into groups and have some students make sponge paintings of the Arctic fox, an ermine, snowy owl, Arctic hare, or polar bear as well as the willow ptarmigan. Students could research what animals prey on their chosen animal and how their camouflage helps protect them.