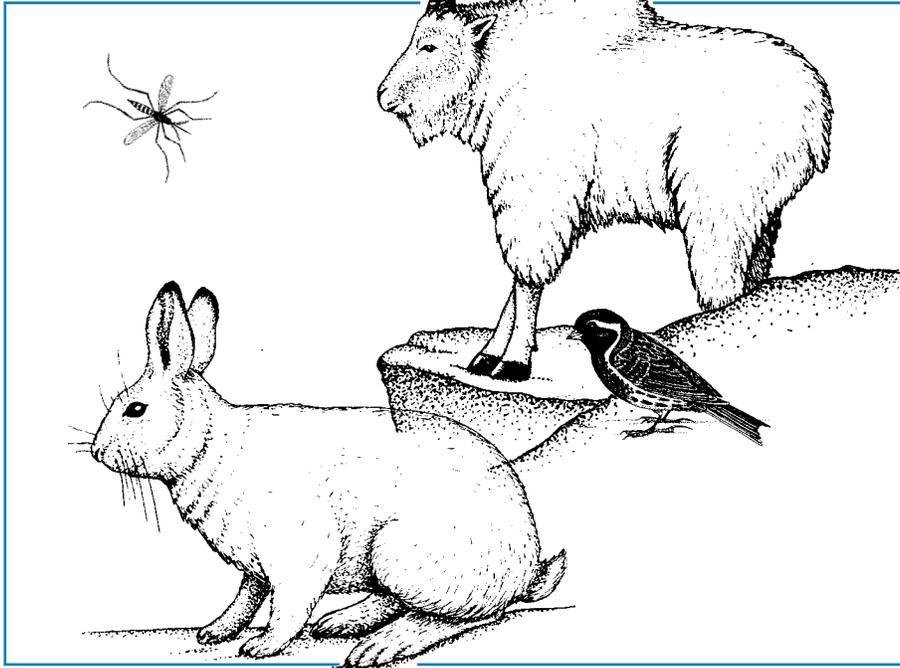


Draw Your Tundra Animal

**ALERT: ALASKA ECOLOGY
CARDS OPTIONAL**



Section 3 TUNDRA ACTIVITIES

Grade Level: 3 - 8

NGSS: 3-LS3-2, 4-LS1-1,
3-5-ETS1-1, 3-5-ETS1-2,
MS-LS1-4., MS-LS4-4
HS-LS4-4.

Subjects: Science

Skills: Relating, categorizing,
designing, synthesizing,
developing

Duration: may vary from 30
minutes to several periods

Group Size: whole class

Setting: Indoors

Objective:

Students will synthesize information about tundra animal adaptations.

Teaching Strategy:

Students will use information from previous lessons and experiments to design an animal that could survive in a tundra environment.

Prerequisite:

“Flower Flip Book” or “Tundra Adaptations,” both in this section.

Complementary Activities:

“Plan Your Tundra Plant” and “Caribou Migration” in this section.

Materials:

Information about tundra animals from *INSIGHTS Section 3*, copies of *Tundra Adaptations Fact Sheets*, pictures of tundra animals, *Alaska Ecology Cards*, and plant adaptation descriptions from “Flower Flip Book” activity (*in this section*); drawing paper; pencils or paints.

Background:

See *INSIGHTS Section 3, Life Forms and their Tundra Adaptations*.

Procedure:

1. Students will identify the environmental components of tundra that affect animals. *These include cold, strong winds, low temperatures, extreme daylight fluctuations, and severe winters.*
2. Review tundra animal adaptations with the students. Use the *Tundra Adaptations Fact Sheets* to discuss the following:
 - Food acquisition and storage
 - Migration
 - Hibernation
 - Shelters
 - Body shape
 - Fur, feathers, fuzz, and movement
 - Color
 - Antifreeze
 - Growth and reproduction
3. Students will look at pictures of tundra animals and discuss the physical features and adaptive strategies these



Utqiagvik animals employ to enable them to live in a tundra environment.

4. Using information about tundra animal adaptations, students will design an animal that can survive in a tundra environment. The degree of detail and complexity is grade-dependent. Students will draw and label their animals.

Primary students might focus on two or three adaptive components such as body shape, color, and outer coverings. **Older students** could focus their designs on physical features but also include adaptive strategies that address food acquisition and storage, winter behavior patterns, types of shelters, and reproductive strategies.

Evaluation:

Students will write (or dictate) a paragraph, or prepare an oral report, describing the adaptive features of their animal that will allow it to survive and prosper in a tundra setting.

Credit:

Contributed by Jeanne L. Williams, Kingikmiut School, Wales, Alaska.

Curriculum Connections:

(See appendix for full citations)

Books:

A is for Arctic (Lynch)

Above the Treeline (Cooper)

Alaska's Mammals (Smith)

Alaska Wildlife Notebook Series (ADF&G)

Arctic Animals (Kalman)

Mammals of Alaska (Alaska Geographic Society)

A Naturalist's Guide to the Arctic (Peilou), 9-12

Tundra Discoveries (Wadsworth)

Websites:

Alaska Wildlife Notebook Series on line
<www.state.ak.us/adfg> (ADF&G)

Arctic wildlife <arctic.fws.gov>
(Arctic National Wildlife Refuge)

Audubon On Line Field Guides <www.enature.com>

Teacher Resources:

(See appendix)

