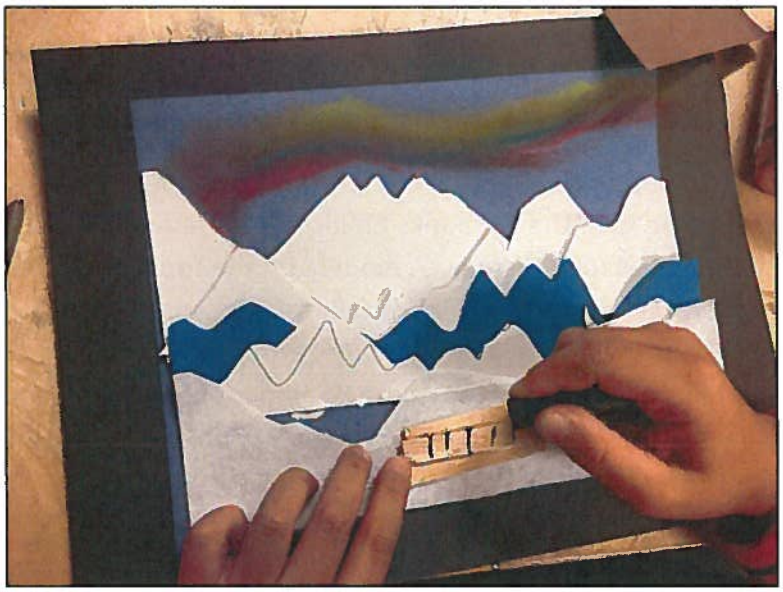
Athabaskan Travel Workshop

Fairbanks Children's Museum



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Fairbanks Children's Museum

Summary of Activities

In March of 2017, Colorado State University's Center for Environmental Management of Military Lands subcontracted with the Fairbanks Children's Museum to develop a field trip toolkit related to Athabaskan Native History. A module on the topic of Athabaskan Travel was developed in consultation with Fort Wainwright's Cultural Resources Manager, Elizabeth Cook. The module (see below) was made available for school groups in January of 2018. During the field trip, students are taught about who the Athabaskan people are and where they live. They learn about how sledges were used for winter travel and are provided materials to create an image of an Alaskan scene including a sledge in a multimedia art project.

The Athabascan Winter Travel module was advertised along with seven other science and art topics (Figure 1). In total in 2018, six teachers selected the module for their classes of second and third graders. A total of 138 students participated. The students and teachers enjoyed the project, and gave positive feedback to the Children's Museum. Below are a series of photos demonstrating the field trip module in action (Figure 2-Figure 5).

Workshops

Athabaskan Winter Travel
Appropriate Grade Level Pre-K - 2

1

Have you ever heard of a sledge before? Have you ever wondered how weight might affect winter travel? Or how those old sleds were made, what they carried, and who might pull or push them? And what is this friction business all about? This cultural workshop is not only filled with science but the students will get to create and take home their very own cultural art masterpieces.

Alaska Essential State Standards: Form, Texture, Color, Unity, A.A.1, A.A.3, GY.A.1, GY.D.1, RI.K.7, RS.K.3, RL1.1, RL

What a Hoot!
Appropriate Grade Level Pre-K - 3

2

Your students will step into the role of bird watchers, learning the noticeable features of owls: beaks, wings, feathers, shape of body, and different species. Students will also create their own feathery owls to take home. [Literature, Art, Drama, Science]

Alaska Essential State Standards: Form, Texture, Color, Unity, A.A.1, RL.K.1, RL.K.7, RS.K.3, RL.1.1, RL.1.2, RL.1.3, RL 1. 4, RL2.1, RL2.2., [3]SA3.1

Magical, Mystical MAGNETS!
Appropriate Grade Level K-3

3

Magnets have two poles, a north, and south pole. The opposite poles of magnet will attract, or pull toward each other. Your students will experiment with magnets of varying strengths and sizes. How is a compass like a magnet? Let's find out in this fun workshop.

Alaska Essential State Standards: [3] SA1.1, SA1.2, SA2.1, SB1.1

Magnificent Minerals Workshop
Appropriate Grade Level K-3
Workshop Fee waived ($5/student)

4

We use minerals everyday! In this workshop students will create a product used by most people everyday, which is made from minerals mined from Earth. Calcium carbonate and sodium bicarbonate are abrasive and cleansing compounds found in toothpaste. let's make toothpaste together! Workshop fee waived due to a grant from Pogo Mine!

Alaska Essential State Standards: [3] SD.1.1 HEALTH A2, A6

POGO MINE

Workshops

Little Cardboard City
Appropriate Grade Level Pre-K - 2

5

Let your students explore the world of **Brown Rabbit in the City** (Natalie Russell) through Literature, Geography, Art, and Drama, as they create a little city of their own out of recycled materials [Literature, Geography, Art, Drama]

Alaska Essential State Standards: Form, Texture, Color, Unity, A.A.1, A.A.3, GY.A.1, GY.D.1, RI.K.7, RS.K.3, RL1.1, RL

Slime Time!
Appropriate Grade Level Pre-K - 3

6

Here your students will learn about lab safety while sharpening their observation skills. They will participate in the joys of mixing ingredients, watching chemicals react, colors change, and making a slimy creation of their own, all while using ratios. [Science]

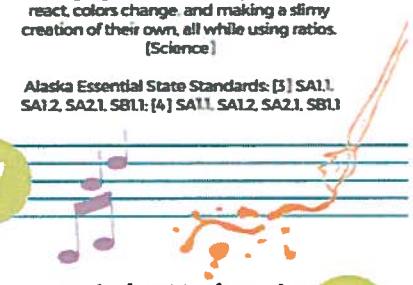
Alaska Essential State Standards: [3] SA1.1, SA1.2, SA2.1, SB1.1; [4] SA1.1, SA1.2, SA2.1, SB1.1

Young Mask Makers
Appropriate Grade Level K-2

7

What is a mask? Why would you wear one? Why do you think other people all over the world wear masks? How can they be used to tell a story? Your student's personalities will shine in this workshop, as they create unique masks using the basic elements of line, shape, form, and composition [Art, Drama]

Alaska Essential State Standards: Form, Texture, Color, Unity, A.A.1, A.A.3



Exploring Music and Watercolor
Appropriate Grade Level K-3

8

Have you ever played musical chairs? Then you will love this musical art workshop, filled with wonder and collaboration. Exploring **The Noisy Paint Box: The Colors and Sounds of Vasya Kandinsky's Abstract Art** (Barb Rosenstock), your students with not only delve into experimental watercolor techniques, but have melodious fun along the way as they share in the creation of each other's masterpieces. [Art, Music, Literature]

Alaska Essential State Standards: Rhythm, Movement, Color, unity, A.A.1, A.A.3

Figure 1. Athabaskan Winter Travel module among other possible modules as advertised on the Fairbanks Children's Museum website.

Figure 2. Module set up in preparation for students.

Figure 3. Instruction period during field trip.

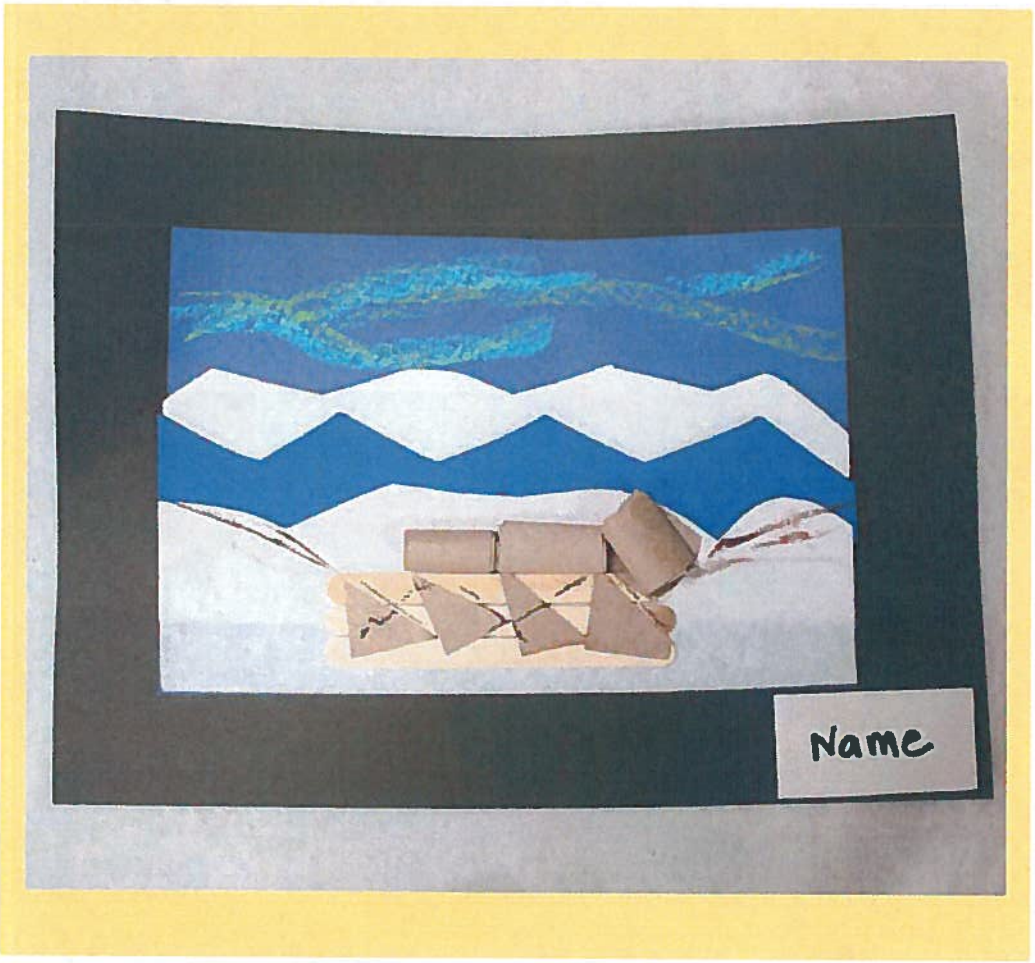
Figure 4. Students begin sledge project.

Figure 5. Student with completed sledge.

Athabascan Winter Travel Module

FAIRBANKS CHILDREN'S museum

1 2 3 4 5



Athabascan Winter Travel
Multi-Media Art Study

Introduction to Lesson

Title of Lesson:
Athabascan Winter Travel

Lesson Materials:

- 8" X 11" back paper
- 1/2 sheet of blue construction paper
- strip of blue foam
- strip of white foam
- strip of white construction paper
- strip of white felt
- brown paper
- 3 popsicle sticks
- tacky glue
- glue stick
- felt cutting scissors

Word list:

Athabascan People

Double-Ended Sledge

Spruce

Birch

Babiche- (bə'bēSH)

Canoe

Deck

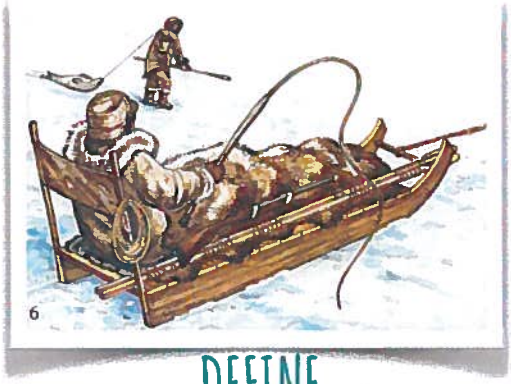
Hide

Runners

Crossbars

Slab

Aurora Borealis



DEFINE

What is a sledge:

noun

1. a vehicle of various forms, mounted on runners and often drawn by draft animals, used for traveling or for carrying loads over snow, ice, and rough ground.
2. a sled

verb

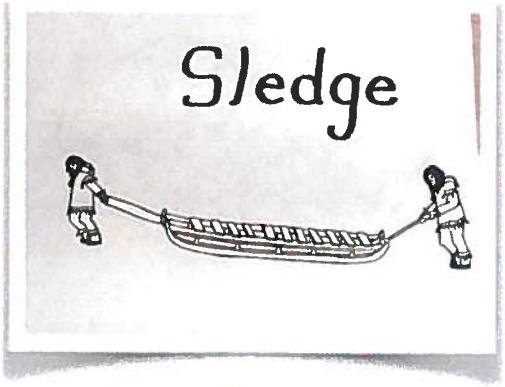
1. to travel by sledge.

(used with or without object), sledged, sledging

- The **Athabascan people** traditionally lived in Interior Alaska, an expansive region that begins south of the Brooks Mountain Range and continues down to the Kenai Peninsula. There are **eleven linguistic groups** of Athabascans in Alaska. Athabascan people have traditionally lived along **five major river ways:** the Yukon, the Tanana, the Susitna, the Kuskokwim, and the Copper River drainages.

- info link: http://www.alaskanative.net/en/main-nav/education-and-programs/culture-of-alaska/athabascan/

About the Sledge



SO WHAT IS FRICTION?

"Friction is **the resistance of motion when one object rubs against another.** Anytime two objects rub against each other, they cause friction. Friction works against the motion and acts in the opposite direction." (ducksters.com/science)

FUN FACTS: The heavier the load, the higher the friction; the higher the friction, the more tired the dog. **Show an example of this to the students using wood and weight on tabletop.**

The **Athabascan People** of Interior Alaska used a **double-ended sledge** to haul their belongings. These sledges were made of **spruce** and **birch wood**. The pieces were tied together with strips of hide called **babiche**. The Athabascans didn't have many dogs, so these sledges were **pulled and pushed by people**.

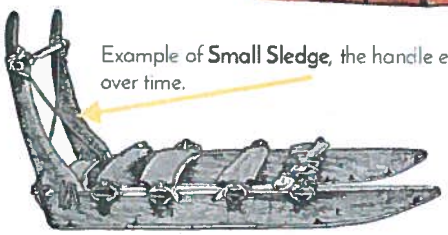
Example of a sled with skins tacked down over the seat frame

Example of **babiche:** rawhide, typically formed into strips, as used by North American Indians for making fastenings, animal snares, snowshoes, etc.

The Athabascan People used a small sledge to haul their canoes over ice. They often carried this smaller type of sledge on the **deck** of their canoes to use in case an ice crossing became necessary.

Example of a **Birch Bark Canoe.**

Example of **Small Sledge**, the handle evolved over time.



Example of a **Double-Ended Sledge** (1926) at Bakers Lake, Interior Alaska

About the Sledge Runners

When wood was not available, they would use a sledge made of **fish**, **hide**, and **meat**. The **runners** were **frozen fish rolled in a hide**. The hide was then dipped in water and quickly shaped into a runner before it froze hard. The **crossbars** were made of **frozen slabs of meat and fish**.

Another Runner Option:

1.) A thick sludge of **mashed moss** and **earth** was applied to the base of the runner, allowed to freeze, and then scraped smooth.

2.) Water would be smoothed on - layer upon layer - with wet **bear hide** (because ice does not stick to it)!! This produced a hard, resistant coat of ice.

3.) Ice layers were applied often, several times a day, based on distance and terrain. If the route was too rough it could chip the runners.

Example of the sledge evolving into a **Dog Sled.**

Runners changed, rigging changed, and the sled shape changed.

Follow up Questions to Ask your Students

Teacher: After reading pages 1 & 2, ask students the following assessment questions (time-permitting):

1. **What is an Athabascan Double-Ended Sledge?**
   (Answer: *it is a type of sled for winter travel*)

2. **Why was it used?**
   (Answer: *winter travel, used to haul belongings.*)

3. **What was it made of and how was it put together?**
   (Answer: *made of spruce & birch wood, tied together with strips of hide or babiche*)

4. **How did it move?**
   (Answer: *it was pulled and pushed by people*)

5. **Smaller sledges were carried on the deck of the their Canoes in case of what type of crossing?**
   (Answer: *ice crossing*)

6. **If there was no wood, Athabascans made their sledges out of what?**
   (Answer: *fish, hide, bone, and meat.*)

7. **How did this new sledge move?**
   (Answer: pulled by dogs)

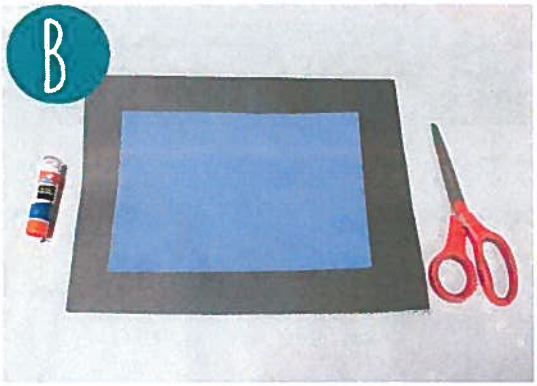
8. **Finish these sentences:** Heavy load = lots of what? lighter loads = less what?
   (friction!)

The Art Project

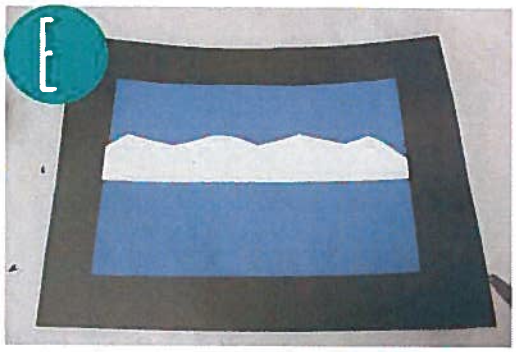
A. Each student should start with the previously listed materials list at their station. It should look like picture A.

B. Step one: Gluestick the half sheet of blue paper to the center full sheet of black. The blue paper is creating the basis for your BACKGROUND and the black paper will FRAME your finished project.

C. Step two: Cut the strips of felt, white paper, blue/white foam into IRREGULAR shapes to make the mountains and snow. (These are each different TEXTURES, which can be discussed while cutting.)

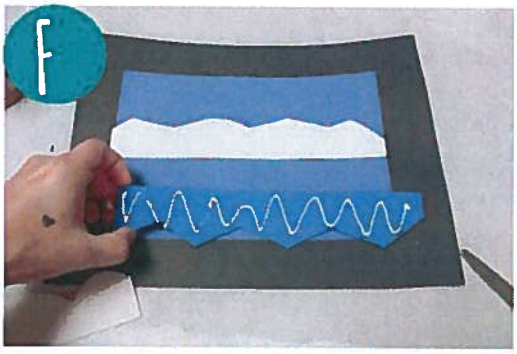


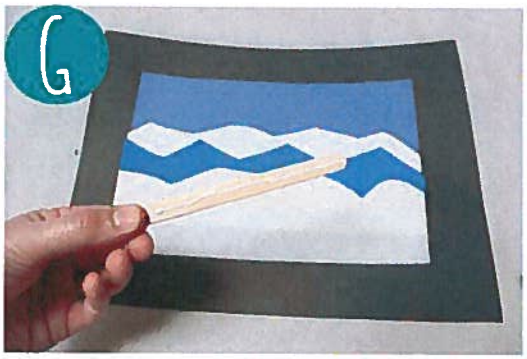
The Art Project: continued



D. Step three: Lay out snow and mountain shapes for placement, before tacky gluing. Layers as follows (BACKGROUND to FOREGROUND) white foam, blue foam, white paper, white felt.

E. Step four: Tacky glue the top layer first, moving from the background to the foreground (white foam). Discuss the effect the TEXTURES have on the background so far.
*differentiated instruction with upper grades discuss creating PERSPECTIVE with your layers,
What the monochromatic color scheme has on the overall piece, and how that makes the viewer feel about the image.

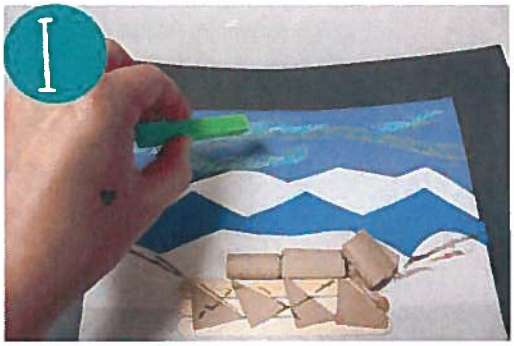




F. Step five: Finish tacky-gluing the layers of foam, paper, felt.

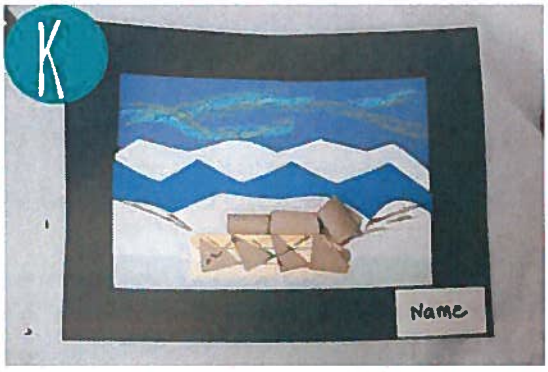
G. Step six: Tacky glue the popsicle sticks- a new color and TEXTURE. What does this feel like and look like? How does it stand out against the background?

The Art Project: continued



H. Step seven: Cut triangles or "strips" of the brown paper. Glue onto the popsicle sticks. Roll up the brown paper, creating bundles to "haul" on the sledge. Secure with tacky glue, glue to popsicle stick sledge.

I. Step eight: Use the chalk pastels to draw the *Aurora Borealis* in the night sky above the mountains. The students can choose to either blend this in- or leave it unblended. Ask critical questions about the added color, and how it changes the background. Does it make you feel differently than before? Does it change the look of the sledge?



J. Step nine: Use brown chalk to draw strips of hide

G. Step ten: Glue on name tag (white piece of paper)

I Can Statements for "Alaskan Winter Travel"

- Today I will learn about Athabascan sledges, so that I CAN compare and contrast the different types of sledges & sleds.
- Today I will learn about CONTRAST, so that I CAN make my sledge stand out from the background through the use of TEXTURE and COLOR.
- Today I will learn about FORCES OF MOTION, so that I CAN discuss the greater the force acting on an object, the greater the change in motion.

Alaska Performance Science Standards 3-5

- **Students demonstrate an understanding of the processes of science by**
  - [3] SA1.1, asking questions, predicting, describing, and communicating
  - [4] SA1.1, asking questions, predicting, describing, and communicating
  - [5] SA1.1, asking questions, predicting, describing, and communicating
- **Students demonstrate an understanding of the attributes and approaches to scientific inquiry by**
  - [3] SA1.2, answering "how do you know?" questions with reasonable answers
  - [4] SA1.2, supporting the student's own ideas with observations and peer review
  - [5] SA1.2, supporting the student's own statements with facts from a variety of resources and by identifying their sources (L)
- **Student demonstrate an understanding of motions, forces, their characteristics, relationships, and effects by**
  - [4] SA1.3, simulating that changes in speed or direction of motion are caused by forces (L)
  - [4] SA1.3, investigating that the greater the force acting on an object, the greater the change in motion will be (L)
- **Students demonstrate an understanding that solving problems involves different ways of thinking, perspectives, and curiosity by**
  - [3] SE2.1, identifying local tools materials used in everyday life (L)
  - [4] SE2.1, identifying the function of a variety of tools (i.e. spear, hammer, kayak, sled)
  - [4] SE2.2, identifying multiple explanations (i.e. oral traditions, folklore, scientific theory) of everyday events (i.e. weather, seasonal changes) (L)
  - [5] SE2.1, investigating a problem or project over a specified of time and identifying the tools and processes used in that project (L)
  - [5] SE2.2, comparing multiple explanations(i.e. oral traditions, folklore, scientific theory) of everyday events (i.e. weather, seasonal changes) (L)

Cultural And performance Standards K-5

- A.3, acquire and pass on traditions of their community through oral and written tradition
- A.5, reflect on their own actions and the critical role that the local heritage language plays in fostering a sense of who they are and how they understand the world around them

Alaska State Arts Standards K-5

A. A student should be able to create and perform in the arts
- 1. participate in visual arts
- 6. integrate two or more art forms to create a work of art

B. A student should be able to understand the historical and contemporary role of the arts in Alaska, the Nation, and the world
- 1. recognize Alaska Native cultures and their arts

C. A student Should be able to critique the student's art and the art of others
- 2.b. describe the use of basic elements
- 4. recognize and consider an individual's artistic expression

D. A student should be able to recognize beauty and meaning through the arts in the student's life
- 3. recognize that people tend to devalue what they do not understand
- 4. listen to another individual's beliefs about a work of art and consider the individual's reason for holding those beliefs.