

Weather & Seasons

Connecting Through Play & Culture



Attributions

The CHILD Family Kits are a collaborative project under the Cultural Heritage Improves Learning & Development (CHILD) curriculum.

This project was made possible by:

- Alaska Department of Education & Early Development: Pre-Elementary Grant (PEG)
- Office of Elementary & Secondary Education: Alaska Native Education Program

The contents are those of the author(s) and contributors. They do not necessarily represent the official views of, not an endorsement by, the U.S. Department of Education, the Alaska Native Education Program, the Alaska Department of Education & Early Development, or the U.S. Government.



OFFICE OF
Elementary & Secondary Education

Beth Hill
Cultural Coordinator



Sawyer Hill
Dena'ina, Age 4



Tiffany Gifford
Project Coordinator, CSD



Brie Wallace
Graphic Design Artist



Esther Pepin
Early Learning Coordinator, BBBS



Amber Kresl
Early Learning Coordinator, LPSD



Tanya Wimer
Early Learning Coordinator, CSD



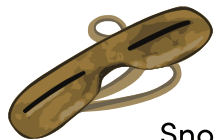
BRIDGE - Borrow

Materials:

2 Books



Plush Sunshine



Snow Goggles

Now is a great time to practice counting skills by making sure all of the materials are in the kit!

Family Message

Seasonal patterns are based on the Earth's rotating cycle around the sun. Plants and animals also go through cycles, aligned with the seasons and weather. Traditionally, weather conditions bring indicators of subsistence activities and types of outdoor adventures to enjoy together.

This kit includes:

- Books to explore different kinds of weather.
- A plush sunshine for snuggling while reading together.
- Traditional snow goggles for pretend play.
- BRIDGE cards to explore this theme.



2

3

4

Enjoy this journey in learning about Weather & Seasons!

Story Time



Weather Related Activities



Design a Visor



Career Connection



Got 5 minutes? Read a story or choose a short activity.
If you have a larger amount of time, spend 20 minutes to complete the design activity.



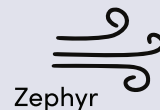
Sun



Snowflake



Raindrop



Zephyr

BRIDGE - Read



Changes in the Seasons

Author: Lucy Palitua

Illustrator: Lenny Lishchenko

Picture Walk

Flip through the pages, without reading words, to highlight the illustrations and ask these guiding questions:

- What do you notice on the cover of the book?
- What do you think is happening in this picture?
- What is the family doing together?



Sharing Stories

Find a comfy spot and snuggle up for story time!



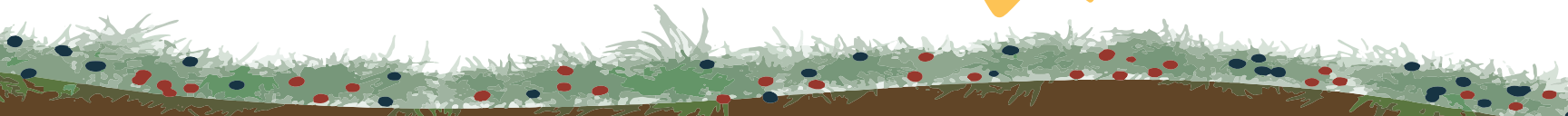
Ask Engaging Questions

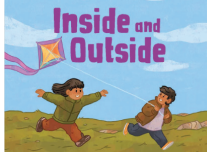
What are some signs of changes in the seasons?

What is different about Winter and Spring weather?

How is being aware of seasonal changes helpful to you and your family?

What does your family like to harvest in Fall or Winter?





Inside & Outside

Author: Inhabit Education Books

Illustrator: Ali Hinch

Magnificent Migrations

How are the types of weather different?

What are your favorite outdoor activities?

What do you like to do when it is snowy outside?



Why do the children like playing outside when it is sunny?

Weather Guessing Game

Give clues and ask your child to pick the correct weather that matches the clue.



Sunny



Windy



Foggy



Snowy



Rainy

When it is this type of weather...

- It is a bright and clear day.
- I can splash in the puddles.
- It is hard to see far away.
- We can go sledding today.
- I can see the trees swaying.

*Extra Fun:

After the type of weather has been guessed, ask your child to race to find a piece of clothing that would match!

CHILD DEVELOPMENT

Vocabulary

When given more words to add into their bank of vocabulary, children begin to speak in more complex sentences that contain many more words.

BRIDGE - Investigate

Growing with the Seasons

Everything grows at its own rate and within a certain time frame. If plants are given water, sunlight, and good soil, they grow and thrive. As we compare ourselves to seeds, we can be mindful of ways to stay healthy so that we grow to the best of our ability!

How can we grow big?



Eat Healthy



Get Plenty of Rest



Stay Hydrated



Stay Active

Honoring Connections

Throughout generations, families have shared many sayings or beliefs around the changing of weather or seasons. Ask other adults to share knowledge that was passed down from their elder family members.

Common Indicators:

- *You may have aches and pains in joints when it is going to rain.*
- *Seeing an abundance of tundra cotton is a sign of good fishing.*
- *Red skies in the morning is a sailor's warning that a storm is brewing.*

Thoughtfully listen as others:

- Recall sayings that have been shared with them.
- Describe the people who shared these beliefs.
- Discuss the significance of these types of indicators.




Just like a seed, your little one can become something wonderfully special!



Making Weather Predictions

Observing your surroundings, daily, can instill awareness and develop critical thinking skills in your ability to make appropriate predictions based on weather patterns.

Record your local weather for a week. Then, discuss the weather of each day using ordinal numbers: 1st, 2nd, & 3rd.

Mon. 1st 	Tues. 2nd 	Wed. 3rd 
---	--	---

*On the 2nd day, it was sunny!
What was the weather on the 3rd day?*



Sky Patterns:

Are the clouds dark and puffy?
Are they long and wispy?



Wave Patterns:

Which direction are the waves traveling?
How long does it take for a wave to rise and fall?



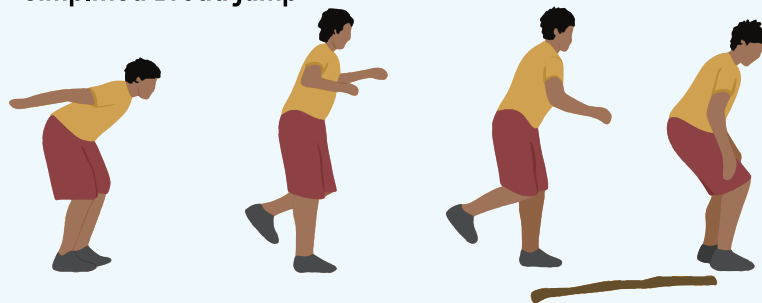
Land Patterns:

Which way are the trees moving?
Are they changing colors?
Is there a predominant wind in your area?

Native Youth Olympics

Many Native Youth Olympic games mimic skills needed to endure natural obstacles outside. These games also symbolized methods for moving from one area to another with the changing seasons and to conduct subsistence activities.

Simplified Broad Jump



Let's Practice:

1

Jump with both feet and land onto one.

2

Try to swap to the other foot and jump again.

3

Land with both feet.

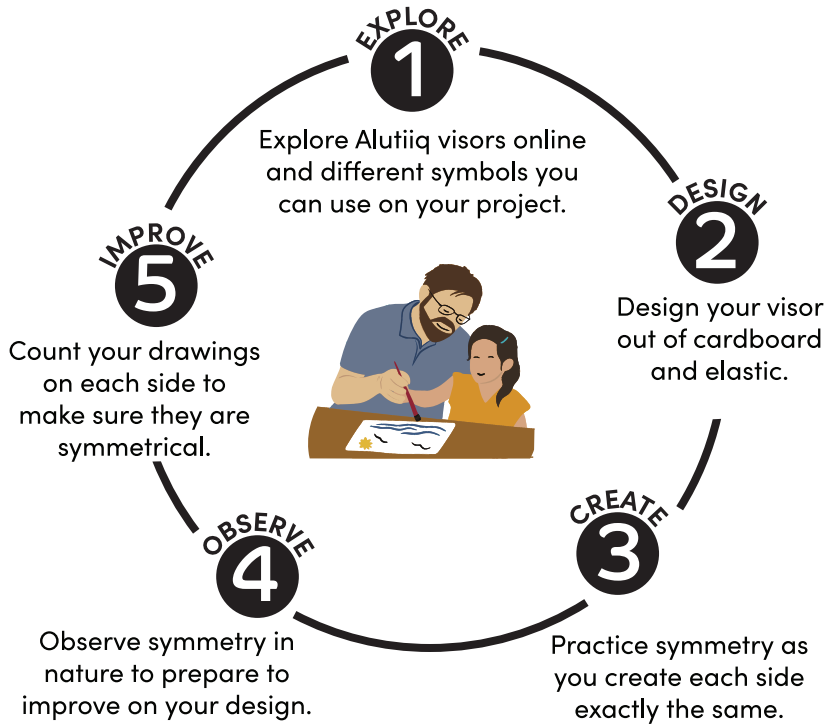
Place a stick where your child landed at the heel of their planted foot to mark and measure your child's landing.
Try to jump farther on your next try!

*Extra Fun:

Watch videos to view other NYO games!



BRIDGE - Design



V is for Visor

"I love the look of my new visor. It is fun to be creative with friends. My friend Lia and I made more visors together. My visor works to keep the sun out of my eyes!"

See you next time! – Sawyer

...with **STEAM**

1 EXPLORE

Research Alutiiq Visors Online

In creating a model of a traditional Alutiiq visor, first view photos online or in books to discuss what a visor is and was used for.

- Look at different designs and learn about traditional materials used in visor making.
- Talk about symbols and what each symbol looks like or might mean.

Many visor designs are very symmetrical, meaning both sides are the same.

The main purpose of a visor is to keep the sun out of your little hunter's eyes.



Science

Scientists use precise measurements.

Collect Materials



Cardboard



Elastic Tighteners

found on the inside of winter jackets



Scissors or Serrated Knife



Decorating Supplies

Ask your child whether each material is technology. Have your child point to **technology** or **not**.



Guiding Questions:

Is it found in nature or invented by humans?
What is it made of? (discuss characteristics)
How is this tool helpful to humans?

Technology

Technology is human made instead of natural & is helpful to humans.

2 DESIGN

1 Cut Cardboard

Use cardboard or heavy piece of paper to draw an elongated 'v', as shown in the picture below. Cut out with a serrated knife or scissors.



2 Prepare Visor

Poke a hole in both corners of the visor.



3 CREATE

3 Decorate Visor

Use markers, crayons, or paints to decorate your visor.



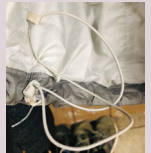
If you use paints, decorate only one side of the visor. Then fold your visor in half to create a mirrored print on the other side!

4 Measure Elastic

Adjust the elastic to the size of your little hunter's head.



Sawyer used an elastic tightener from the bottom of an old coat.



Tip: One way to teach symmetry is to create a design on one side and have your child try to copy it on the other side.

Engineering



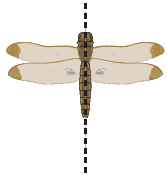
4 OBSERVE

Symmetry & Balance

It's never too early to introduce art concepts such as symmetry and balance. Go outdoors to find examples of symmetry on the land.



Leaf



Skimmer Dragonfly



Feather



Forget Me Not

To check if something is symmetrical, each side needs to be the same if folded in half.

Why is it important?

Symmetry creates patterns that help us organize what we see and create balance.



Art

Artists take inspiration from nature.

5 IMPROVE

Continue creating symmetrical patterns

Count the number of drawings/paintings on each side to make sure they match and are symmetrical. Improve your symmetry by adding drawings.



Many Alutiiq visors have swirls on them. Add to your visor design by including this wave symbol, a petroglyph from Cape Alitak, Kodiak Island.



Include a string of beads or feathers. Research pictures online to see examples.

Math

Symmetry is a fundamental part of geometry.



BRIDGE - Grow

When I Grow Up...

Meteorologists study and predict the weather

What is important to Meteorologists?

★ Job Safety

Meteorologists predict storms so people have time to prepare for extreme weather conditions.

★ Teamwork

Some meteorologists work with citizen scientists to collect data for research. They share their knowledge with others.

★ Practice

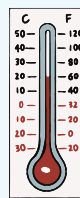
Some people go to college to get a degree in Meteorology, while others get training from the military.



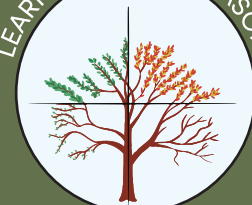
As I Grow...

I can become a citizen scientist.

USE SIMPLE THERMOMETER



LEARN ABOUT THE SEASONS



OBSERVE THE WEATHER



DRESS FOR THE WEATHER



I can be a Meteorologist! ☼

Meteorologists are scientists who make forecasts, report on the weather, study weather patterns, issue severe weather warnings, and teach others.







Meet Ryan Metzger

Warning Coordination Meteorologist, National Weather Service, Fairbanks.

Why Weather



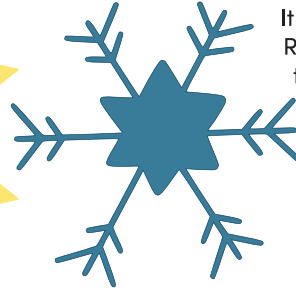
Ryan started watching the weather at a young age and was pleased to learn that you can get a job forecasting the weather! He enjoys giving people information about the weather and warning them about storms, so they can plan ahead.



Ryan learned to recognize the impacts each weather pattern brings. The more weather events he sees, the more experienced he becomes at predicting future events.

Aspects of the Job


Be Prepared



It is important to be prepared for the weather. Ryan suggests keeping a safety kit in your car that contains warm clothes, a sleeping bag, snacks, flares, and tools, just in case.

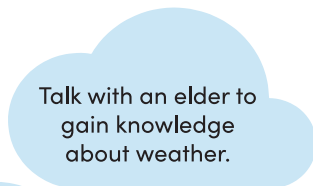


Challenges



Weather happens at all times of the day and night. It can be a bit of a challenge working nights, weekends, and holidays.

Alaska is so big, it can be hard to predict all of the localized effects of the weather.



Talk with an elder to gain knowledge about weather.

BRIDGE - Explore



Explore the Language App!



Can you find these words?



Summer



Fall



Winter



Spring

What to Explore Next?

We hope you have enjoyed this kit! Here are some ways you can continue to explore.



References

Hinch, A. (2019). *Inside and outside*. Inhabit Education Books.

Palituaq, L. (2022). *Changes in the seasons*. Inhabit Education Books.

"NSSL Projects." (2013) *mPING*, mping.nssl.noaa.gov/. Accessed 31 May 2023.

Alaska Department of Education & Early Development. (2019). *Alaska early learning guidelines*. Retrieved January 30, 2022, from <https://www.alaskaedg.org/>

