

GETTING STARTED

with POLAR BEARS

Your students are going to love learning all about polar bears through hands-on exploration with real world connections, and you are going to love all that is packed in this Polar Bear Unit! This overview is set up to show you everything that is included and how it can be used best. Pick and choose what works for you and your students.

POLAR BEAR science	
M Monday	POLAR BEAR INTRODUCTION Read a non-fiction polar bear book. Discuss the polar bear facts.
T Tuesday	PARTS OF A POLAR BEAR Read a fiction polar bear book. Using the Parts of a Polar Bear poster, introduce the different parts that make up a polar bear.
W Wednesday	POLAR BEAR ... Read a non-fiction polar bear book. Discuss the polar bear facts.
Th Thursday	POLAR BEAR STEM CHALLENGE Read a non-fiction polar bear book. Review the Polar Bear STEM Challenge.
F Friday	POLAR BEAR STEM CHALLENGE Read a non-fiction polar bear book. Review the Polar Bear STEM Challenge.

LESSON PLANS

These comprehensive lesson plans are ready for you to integrate polar bears into every aspect of your classroom. Our plans are also perfect for supplementing an existing curriculum or pulling just-right engaging activities when you are short on time.

science **POLAR BEARS**

Dear Families,
We are learning all about polar bears in the classroom this week. We are learning about polar bears and how they live in the Arctic.

At Home Activity:
You can learn all about polar bears at home! Go to <https://polarbearsinternational.org/> to learn about and see the latest research on these arctic animals! You can also go to https://www.youtube.com/results?search_query=polar+bear+live+feed to see the latest live stream videos of real polar bears! Your local zoos may also have a polar bear exhibit.

AT-HOME LETTER

Send home these notes and let families know what their children are learning about in science. This letter also includes ideas for families to extend the learning at home.

TEACHER GUIDE for POLAR BEARS	BEAR DIET
<p>POLAR BEARS</p> <ul style="list-style-type: none"> Polar bears are the only bear species to be considered a big cat. <p>WHERE DO POLAR BEARS LIVE?</p> <ul style="list-style-type: none"> Polar bears live on sea ice in Alaska, Canada, Russia, Greenland, and Norway. A polar bear's home range can be gigantic, stretching over hundreds of miles, due to sea ice always moving and changing with the seasons. They will follow the sea ice. <p>DID YOU KNOW?</p> <ul style="list-style-type: none"> Polar bears do not live in Antarctica, although many people assume they do! 	<p>Polar bears are omnivores. They eat a variety of foods including fish, seals, walrus, and birds. They also eat plants and berries.</p> <p>BEARS VS. OTHER BEARS</p> <ul style="list-style-type: none"> Polar bears have smaller heads and longer necks than brown bears. Polar bears have longer and sharper teeth than brown bears. Polar bears have a white coat, while brown bears have a brown coat. <p>WIP?</p> <ul style="list-style-type: none"> Scientists of a grizzly bear, the polar bear, and most powerful carnivore on land.

TEACHER GUIDE

Everything you need to know about polar bears is ready for you in this guide. When students want to dig deeper, you will be prepared with fun facts to keep their interest and deepen their knowledge.

SCIENCE CENTER for POLAR BEARS

GETTING STARTED
 Set your center with lots of fun materials and invite students to investigate and share their findings.

SHARING TIME
 In a group setting of your choice ask, "Who were my scientists today?" At this time those who want to the science center have a chance to share their questions in this unit. If a child makes an exciting discovery in the science center, they will surely want to share it with everyone. At this time you may want to encourage and praise their findings.

SCIENCE CENTER

Use this guide for tips on how to set up your science center and keep students motivated to enter the science center each day to make new discoveries.

QUESTIONS TO ASK for POLAR BEARS

1. Can you draw a picture of a polar bear?

2. How would you know if you were in the Arctic?

3. What makes polar bears different from other bears?

4. What do you think a polar bear feels like in the cold, icy water?

5. Polar bears eat seals. From how do you think they catch them?

6. Would you like to live in a cave in the arctic?

7. Does a polar bear remind you of any other animals?

8. A polar bear is a mammal. What other animals are mammals?

9. How is this similar to something else you know?

10. Can you think of another way to solve a problem?

11. How would you handle this problem/challenge/question?

SCIENCE talk

How did you know...?
 Why do you think that...?
 What else might have caused...?
 How can you explain your findings? Recall in your own words...
 How did you decide...?
 Can you tell me about that...?
 How does that work...?
 Can you draw me a picture of your findings?
 What... happen if...?
 What...?
 How is this similar to something else you know...?
 Can you think of another way...?
 Create a new solution...
 How would you handle this problem/challenge/question?

QUESTIONS

Encourage your students' natural curiosities with questions regarding polar bears. You may also print off the provided list of open-ended questions that can be used with any science lesson to encourage "science talk" with your class.

POLAR BEAR BOOKS

To help you with your planning of your Polar Bears Unit, we have curated a list of our favorite polar bear **BOOKS!**

Click anywhere on the page to be taken to our Amazon Favorites.

BOOK LIST

To make planning easy, we have curated a list of our favorite polar bear books that will engage your students while they learn new information.

POLAR BEARS VIDEOS

To assist with the planning of your Polar Bears Unit, we have curated a list of our favorite polar bear **VIDEOS!**

POLAR BEARS

All About Polar Bears For Kids Polar Bears For Children

Polar Bears 101

MISSION: ANIMAL RESCUE

Polar Bears Rescue 2016

Amazing Animals

Polar Bear | AMAZING ANIMALS

VIDEO LIST

To make planning easy, we have curated a list of our favorite polar bear videos. Each picture is linked to the corresponding video.

POLAR BEAR SONGS

To help with the planning of your Polar Bear Unit, we have curated a list of our favorite polar bear **SONGS!**

The Polar Bear Song

Polar Bear Rolling Around Ft. Parry Gripp

Paw Paw Polar Bear

SONG LIST

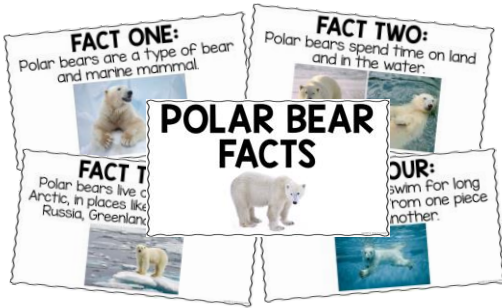
Our song list is linked and ready to use with your students. You can show them the video with the song, or simply play the song in the background during center time, dismissal, clean-up, or any other transition during the day.

LESSON CONTENT

for POLAR BEARS

POLAR BEAR FACTS POWERPOINT

This includes a PowerPoint to project on a smartboard and printable posters to use as a big book or display in your science center.



POLAR BEARS EMERGENT READER

Students can practice one-to-one correspondence while reading this easy reader. After reading the book in whole group, copies can be put in the reading center or sent home for extra practice.



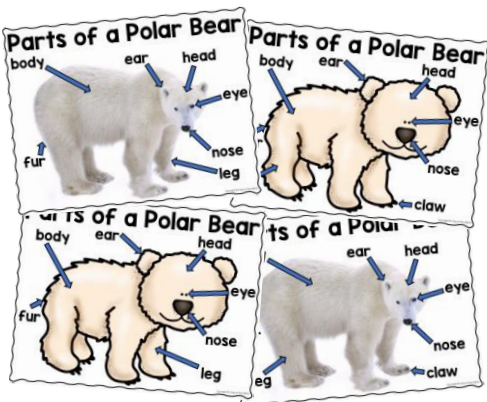
QUESTION OF THE WEEK

Choose from one of these questions to engage your students, pique their interest, and get them talking about polar bears!



PARTS OF A POLAR BEAR POSTERS

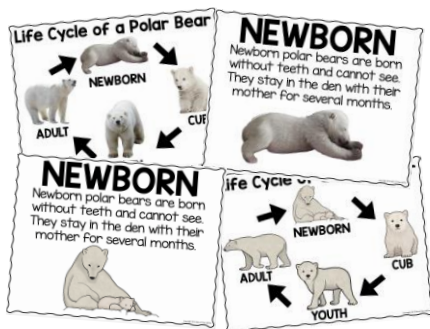
With both clipart and real-life options, use these posters to show your students the different parts of a polar bear.





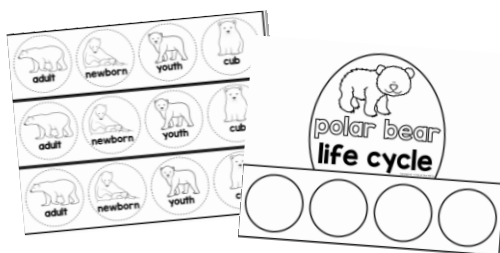
PARTS OF A POLAR BEAR WORKSHEETS

After teaching your students about the parts of a polar bear, use these different worksheet options for them to show what they know.



LIFE CYCLE POSTERS

Use these posters to teach your students about the polar bear life cycle. Use either or both versions, one with clipart and one with real-life photos.



LIFE CYCLE HAT

Students can show what they know about the order of the polar bear life cycle with this fun hat.



POLAR BEAR FINGERPLAY

Use this Fingerplay to transition throughout the unit. Put a copy in the library center for students to practice.



POLAR BEAR CRAFT

This polar bear craft is easy to make and doubles as a fine motor activity. Use this craft to culminate the unit or as an adorable bulletin board idea!

POLAR BEAR STEM 2

Polar bears stay warm in the freezing cold air and water because of their thick layer of blubber/fat. Do this experiment to see how it feels to have blubber protect you from the cold.

YOU WILL NEED:

- Large container or bowl
- Ice cubes and water
- Vegetable Shortening or Butter
- Two Plastic Bags
- Optional Disposable Gloves

DIRECTIONS:

1. Fill the large bowl with ice and water.
2. Have students place their hand in a plastic baggy and stick their hand in the bowl of water. Ask them how it feels.
3. Then have students stick their hand (go not) into a plastic baggy that is filled w/ vegetable shortening or butter, and stick their hand in the ice water again.
4. Ask students questions about how they feel. Different bags made your hands feel

POLAR BEAR STEM 1 QUESTIONS

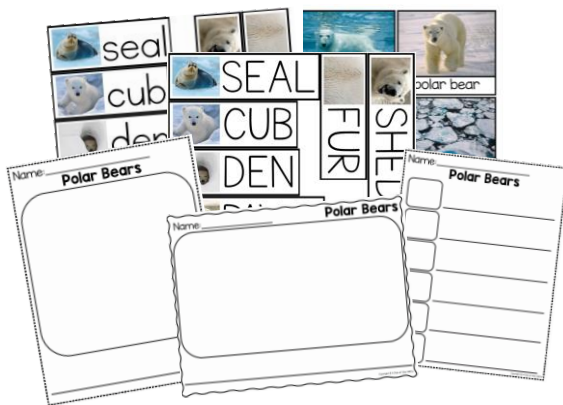
1. Do you think your den would protect your polar bear?
2. What was the hardest part of building the den?
3. What materials would you have liked to have to help you build?
4. What was the easiest part?
5. Does the den have a place for the polar bear to enter and exit?
6. Will more than one polar bear fit in the den?
7. Why do you think polar bears dig dens?

STEM CENTERS

Use these STEM activity ideas throughout your animal study. Complete the activity as a whole group or place the materials in a center and let your students explore.

BONUS MATERIALS

for POLAR BEARS



WRITING CENTER

Set up your writing center with word cards and writing papers that meet the needs of your students. Need all uppercase letters or just lowercase? No writing lines or list writing paper? There is something for every learner.



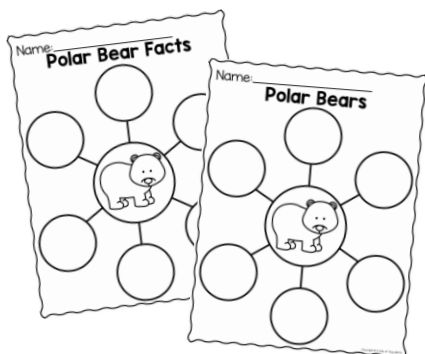
DEFINITION POSTERS

These posters use real life pictures and simple definitions that are easy for students to understand. Hang them up in your science center, add new ones to your whole group area each day, or project on your smart board.



WORD WALL

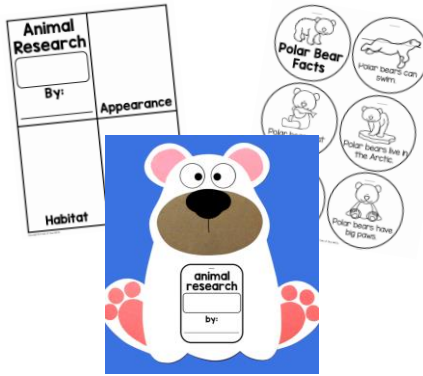
Add the new vocabulary you are introducing to your students throughout the week to the word wall. Students can refer to these words throughout the year.



CIRCLE MAPS

Use these circle maps when introducing polar bears to see what your students know, or after you teach the unit for them to demonstrate their new knowledge. These can be used individually, as a graphic organizer, or as a whole group activity.

POLAR BEAR FACTS OR ANIMAL RESEARCH CRAFT



Use the craft template and research sheet options to have your students show what they have learned about polar bears during the unit with this craft/research project combination.

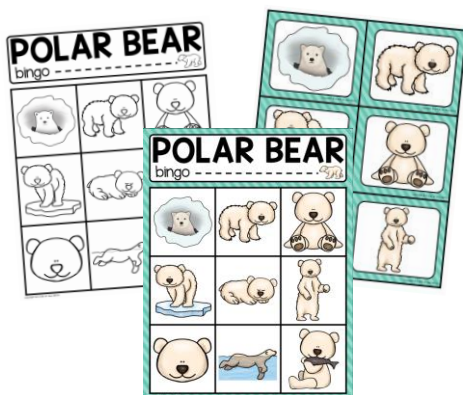
I'M A LITTLE POLAR BEAR EMERGENT READER

Students can practice one-to-one correspondence while reading this easy reader. After reading the book in whole group, copies can be put in the reading center or sent home for extra practice.



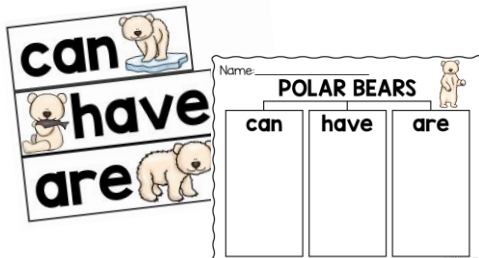
POLAR BEAR BINGO

Add this Polar Bear Bingo to your lesson plans as a fun way to practice listening skills. Prep for Fun Friday or have a volunteer play with students at a center. Bingo boards and calling cards are included in color or black & white.



CAN-HAVE-ARE ACTIVITY

After learning about polar bears, complete this Can-Have-Are chart as a whole group and/or independently.



SENSORY BIN IDEAS

Use these sensory bin suggestions to engage your students in hands-on learning about polar bears.

POLAR BEAR SENSORY BIN

Sensory bins encourage open-ended thinking, language development and it helps build fine motor development. Create this Polar Bear sensory bin for students to explore the life and home of a polar bear.

YOU WILL NEED:

- A sensory table or bins
- Plastic Polar Bears
- Plastic fish or seals
- Pops/Containers
- Water
- Freezer

DIRECTIONS:

- Fill pops and/or containers with water and put them in the freezer a few days ahead of time.
- After the water freezes, pop out the "ice" into your sensory bins. Fill them with more water.
- Give students plastic animals to explore living on the ice and in the water.