

Plan For Week 7 Science 7

Plan for the week of: May 25 - May 29

At the end of the week you will know, understand, and/or be able to do the following:

I can successfully design a model

Why does this learning matter?

This lesson helps us understand that change in environmental conditions can affect the survival of individuals and of species

The plan for the week :

- Monday: Memorial day
- Tuesday: Read the background knowledge on polar bears. Use a Venn diagram to compare and contrast brainstorming your habitat design.
- Wednesday: Work on the polar bear habitat
- Thursday: Work on the polar bear habitat
- Friday: Complete the polar bear habitat
- Ways to demonstrate learning (pick what works best):
 1. Email pictures, sketches
 2. Turn in sketches and drawings
- Extension
Make improvements and/or re-do the experiment for more data

Who To Ask For Help and How To Reach Them

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ICE IS NICE!

Thick fur and a layer of fat keep polar bears so warm that they may actually get too hot! This bear sprawls on the ice to cool down and chill out.



ON THE HUNT

Polar bears are the largest bears in the world. A male may weigh as much as seven grown men! So it's no surprise that these bears need a whole lot of food to keep their big bodies going. And they get most of that food by hunting their favorite prey: ringed seals.

The seals they eat hang out mostly in icy Arctic waters. But like all marine mammals, the seals must come up for air. So polar bears prowl the edges of the ice that forms on the Arctic sea each fall. When a seal pops up to breathe, a waiting bear may grab it and drag it onto the ice for a meal.

her snowy den to give birth — usually to two cubs. She won't eat again for four months or longer! And she uses up a lot of stored fat to make milk for her cubs.

Once the babies are old enough, they follow Mom out into the big, icy world. It's spring, which means the sea ice will soon be melting. And once

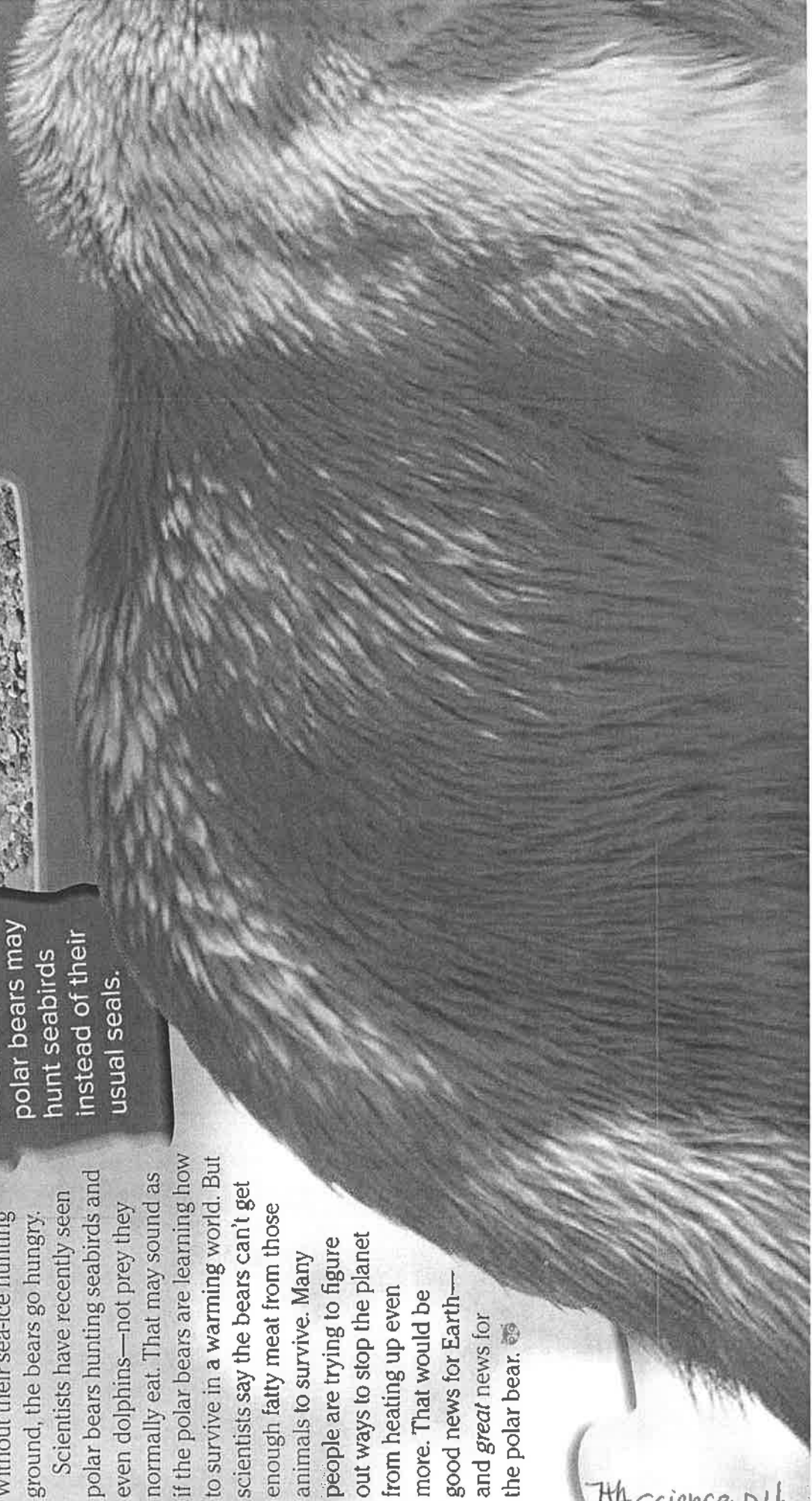
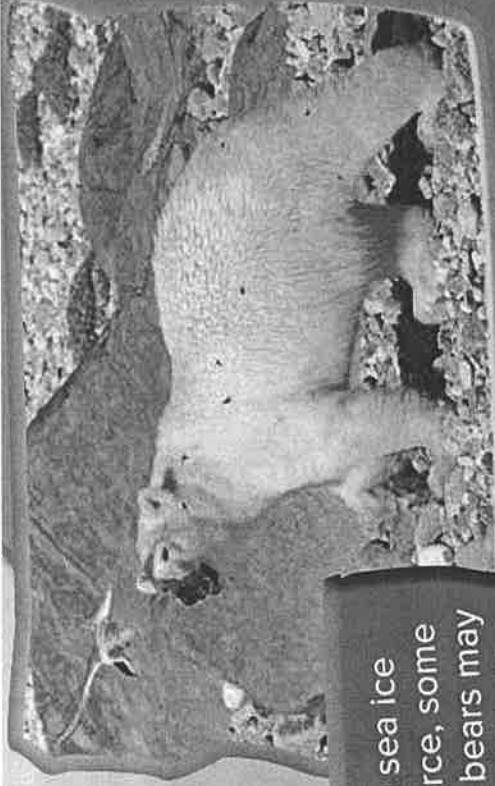
People have spotted polar bears swimming more than 50 miles from land.

TROUBLE IN "PARAD-ICE"

The Arctic sea where polar bears live should freeze over in early autumn—and not melt until late spring. But human-made gases are making the Earth warmer. This causes the sea ice to freeze later in the fall and melt much earlier in spring. Without their sea-ice hunting ground, the bears go hungry.

Scientists have recently seen polar bears hunting seabirds and even dolphins—not prey they normally eat. That may sound as if the polar bears are learning how to survive in a warming world. But scientists say the bears can't get enough fatty meat from those animals to survive. Many people are trying to figure out ways to stop the planet from heating up even more. That would be good news for Earth—and *great* news for the polar bear. 🐻

When sea ice is scarce, some polar bears may hunt seabirds instead of their usual seals.





WILD CLASSROOM

WWF's Wild Classroom connects educators and parents with the tools and resources they need to help kids explore and understand the world around them. Visit wildclassroom.org to choose from a growing library of animal- and nature-related teacher's guides, fact sheets, and activity plans that you can use to enhance your science, writing, art, and other lessons.

Together we can inspire the next generation to build a future where people and nature thrive!

POLAR BEARS

● Polar Bear Fun Facts

- Polar bears evolved from brown bears less than 500,000 years ago.
- The Latin name for polar bear is *Ursus maritimus*, which means "sea bear." Polar bears are classified as marine mammals because they spend most of their lives on the sea ice of the Arctic Ocean.
- Polar bears keep their fur clean to help insulate them against the cold. Dirty, matted, and/or wet fur is not as effective an insulator.
- Although polar bear fur appears white, it is actually clear. The hairs are hollow and contain no pigment. Reflection of the sun's light causes them to appear white.
- Polar bears have a thick layer of body fat, to help protect them from the cold air and water of the Arctic. Underneath the fur, their skin is black.
- Despite the extreme cold conditions of their environment, polar bears sometimes overheat. When this happens, they lie down in the snow to cool off.
- In addition to an upper and lower eyelid, polar bears have a third eyelid that helps protect their eyes from the glare of snow and ice.
- Adult polar bear paws are about 12 inches wide, the size of a dinner plate. These large paws help evenly distribute their weight so they don't fall through the sea ice.
- Polar bears can swim up to six miles per hour by paddling with their front paws and holding their hind legs flat like a rudder.
- Polar bears spend over 50% of their time hunting for food. They store energy when sea ice and food are plentiful so that when food sources are scarce (usually during the summer and autumn), they can survive on fat reserves.

The Science p5



POLAR BEARS

- Because they need large amounts of fat to survive, the polar bear's diet consists mainly of seals. They may catch only one or two out of every 10 seals they hunt. When sea ice and food are scarce, they may travel to land to prey on smaller animals, scavenge for animal remains, or eat things like eggs and berries.
- Polar bears have an excellent sense of smell that can detect breathing holes in the ice, indicating a seal beneath as much as three feet of snow. The bear will sit perfectly still next to the breathing hole, sometimes for hours or even days, waiting for a seal to emerge for air.
- As polar bears spend more time on land due to shrinking sea ice, and as grizzly bears head further north as the climate warms, the two species have mated, in rare cases producing half-grizzly, half-polar bear hybrids referred to as pizzly or grolar bears.





● Polar Bear Q&A

What is a polar bear's extinction risk?

Polar bears are currently listed as vulnerable.

How many polar bears are in the wild?

22,000–31,000

Where do polar bears live?

Polar bears live on ice-covered waters in the Arctic. Two-thirds of the total polar bear population is found along the icy waters of Canada.

What is a polar bear's weight?

800–1,300 pounds

How big is a polar bear?

Six to nine feet long

How many subspecies of polar bear are there?

Polar bears are divided not into separate subspecies but rather into subpopulations based on geographic location. Currently, there are 19 subpopulations around the Arctic.

How do polar bears raise their young?

Polar bears typically mate in the late spring, when sea ice is most plentiful. Pregnant mothers feed throughout the summer and fall, ensuring they have enough fat to sustain both mother and cubs. Females then build dens along sea ice or snow and give birth during the winter. When they're born, polar bears are only about the size of an adult guinea pig. A mother usually gives birth to one to three cubs, which stay with her for about 28 months.



● Why Polar Bears Matter

They represent the health of their environment.

Polar bears play an important role in the overall health of their marine environment. A top predator, they are vital to the balance and stability of their food chain, which includes fish. By protecting the polar bear, we're helping ensure the health of the entire Arctic food web, benefiting millions of people who depend on fish for food and income. As an indicator species, they are also studied so scientists can gain a broader view of what's going on in the Arctic. When they're unhealthy, it may be a sign that something is wrong elsewhere.

They are cultural icons.

Polar bears have been significant figures in Arctic culture for centuries. According to the Alaska Nanuq Commission, "nanuq" is a widely used term for "polar bear" in the indigenous languages of Alaska. Nanuq has a strong presence in folklore and tales throughout Alaskan history, many of which show a consistent theme of ceremonialism, respect, and the relationship between polar bears and humans.



7th Grade Social Studies

Plan for the week of: May 25th through May 29th

At the end of the week students will:

- Understand and explain current events that are happening world wide.
- Create a primary source (journal) reflecting on issues or what you did on a given day. For example what did you do on a given day, how did you feel on a given day, or what major event happened on this day.

Why does this learning matter?

You'll be learning about current events and journaling what happened and how it made you feel during this time. You are living history and by journaling you are creating a primary source that people in the future can use to learn from.

The plan for the week : *(This Plan is the same as last week)*

- **Monday - Memorial Day Holiday - No Work! Enjoy!**
- **Tuesday through Friday - Worksheet - DUE EACH WEEK**
Pick a **news story each day** from television, newspaper, magazine, or radio and explain why it is important. Using your Current event worksheet write a short response (***one or two paragraphs***) explaining what you learned, why it was important. *Who, what, when, why, and how* come statements work well when explaining the news stories. **THIS SHOULD BE TURNED IN EACH WEEK.**
- **Challenge Option:** **Create a journal (or use the one that you created last week)** or use a spiral notebook and journal what you did each day during this COVID-19 quarantine period. *This assignment is optional (extra credit)*. You would complete it because you want the extra credit, or you recognize the it's cool potential.

Journal about what events happened on this day that were important to you, and how did it make you feel? You can journal about social isolation and how you're feeling, events you did during this time with you and your family, major news stories and how it's affecting you, and most importantly your feelings. In the future looking back and reading how all these events affected you can be powerful. Who knows... your grandkids might interview you someday about these events, and you will be able to show them the primary

documents that you created.

The journal entries can be as long as you want it to be, but remember the more detail you put in the better it will sound. Don't be afraid to go above and beyond and include lots of details. Years from now you will enjoy reflecting and reading your journals, the people who write more will have more to reflect on. You can also journal about how your family is doing, feel free to interview a family member and share their feelings and experiences. As a family you are all in this together and it might be nice to hear both yours and their voices in your journals.

If you struggle with writing, start small. Maybe begin with a paragraph or two, then work your way up to a half page, then a page. Have fun with this journal, it's about your feelings and experiences. There are no wrong answers.

THIS JOURNAL YOU WILL NOT TURN IN UNTIL IT'S TIME TO TURN IN THE LAST PACKET. The plan is to get it back to you by the beginning of school next year.

Who To Ask For Help and How To Reach Them

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Current Events Worksheet

Name _____ Date _____ Teacher: _____ Per. _____

This assignment is similar to how we watch CNN 10 daily when we are in the classroom. Choose a news source to watch (tv or internet), listen to (radio), or read (newspaper). Listen to that news source each day. Below, write down a short paragraph on what the topic is and what you learned. Feel free to watch the news with your parents/guardians and discuss the story with them before writing down your response. **YOU MUST WRITE MORE THAN ONE WORD ANSWERS TO THE QUESTIONS.** *No credit will be given for incomplete answers.*

TUESDAY

What things were discussed in the news?

What did you learn?

WEDNESDAY

What things were discussed in the news?

What did you learn?

THURSDAY

What things were discussed in the news?

What did you learn?

FRIDAY

What things were discussed in the news?

What did you learn?
