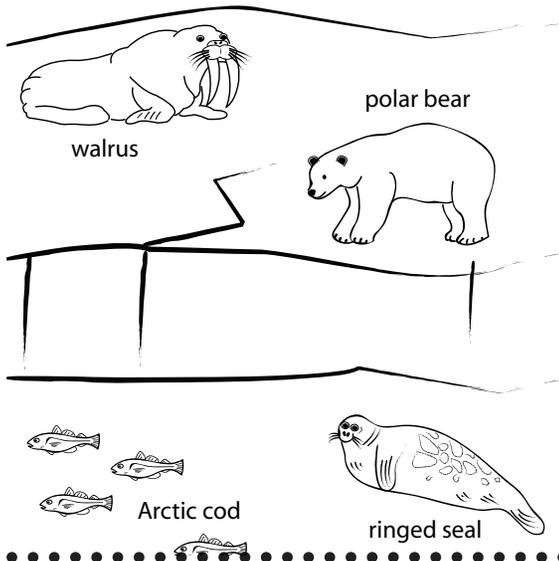


# THE ARCTIC CREATURE MOBILE



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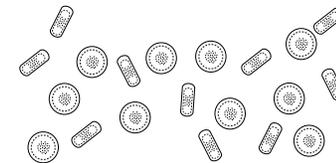


*SOME OF THEM ARE IN THE  
CHILLY OCEAN WATER.*

*SOME OF THEM ARE ON THE  
ARCTIC SEA ICE.*

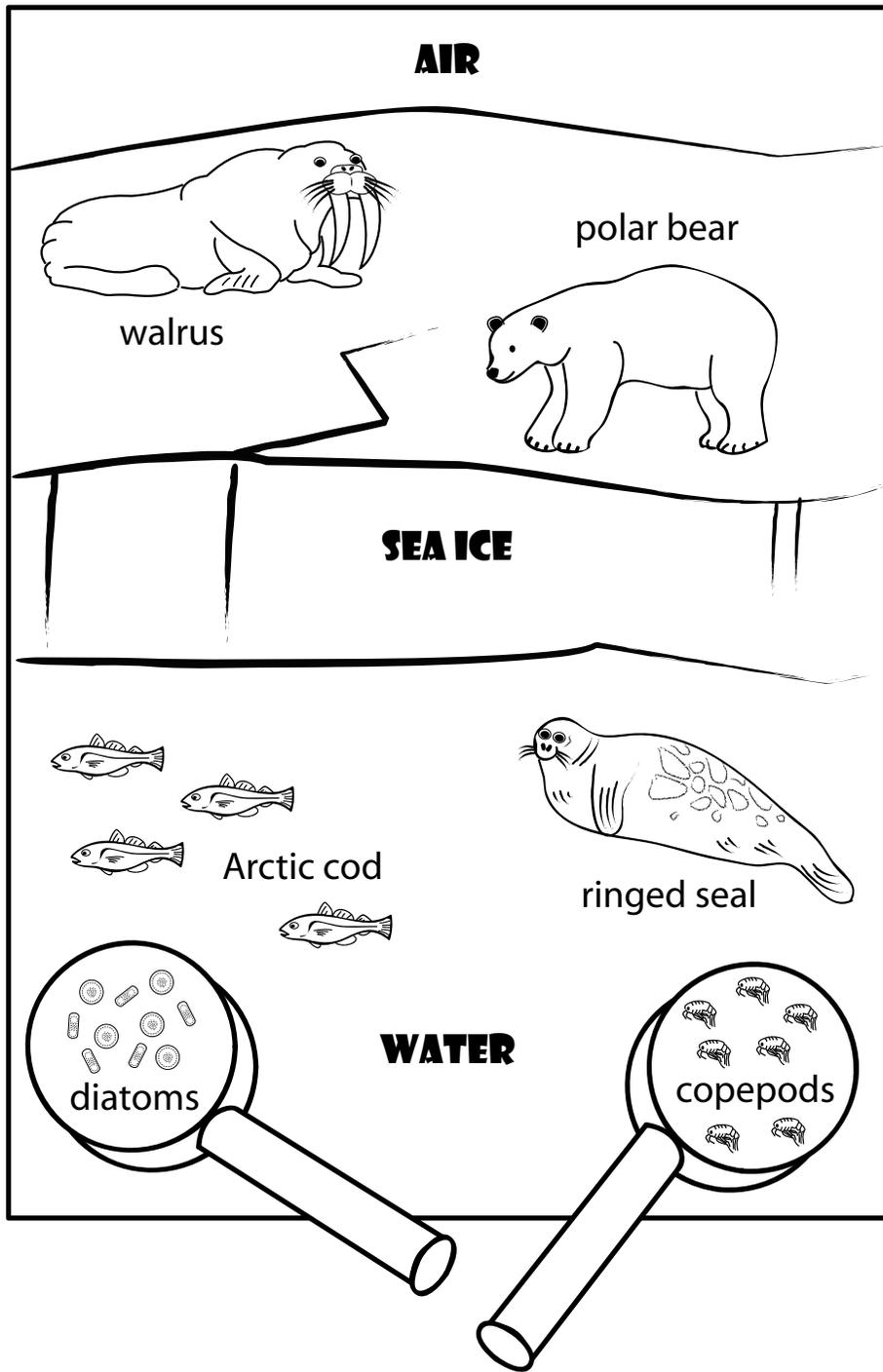
*AND THEY ARE ALL  
CONNECTED IN A  
FOOD CHAIN!*

*MAKE YOUR OWN MOBILE  
OF ARCTIC CREATURES THAT  
LIVE IN THE WATER AND ON  
THE SEA ICE, AND DEPEND ON  
EACH OTHER FOR FOOD!*



*A Windows to the Universe Activity  
by Lisa Gardiner*

*For information about the Arctic, visit:  
Earth's Polar Regions  
[www.windows.ucar.edu/polar.html](http://www.windows.ucar.edu/polar.html)*



## WHO LIVES IN THE ARCTIC OCEAN?

The **Arctic Ocean** surrounds the North Pole. It is so cold there that the top of the ocean freezes. The frozen ice floats on the ocean water. It is called **sea ice**. Do you see the sea ice and the water in this picture? The air of the atmosphere is above.

The creatures that live in the Arctic Ocean are adapted to living with the sea ice. Some of them live in the ocean water under the sea ice, like Arctic cod, ringed seals, and copepods. Others, like polar bears, spend most of their time on top of the ice. Some animals spend part of their time in the water and part on the ice.

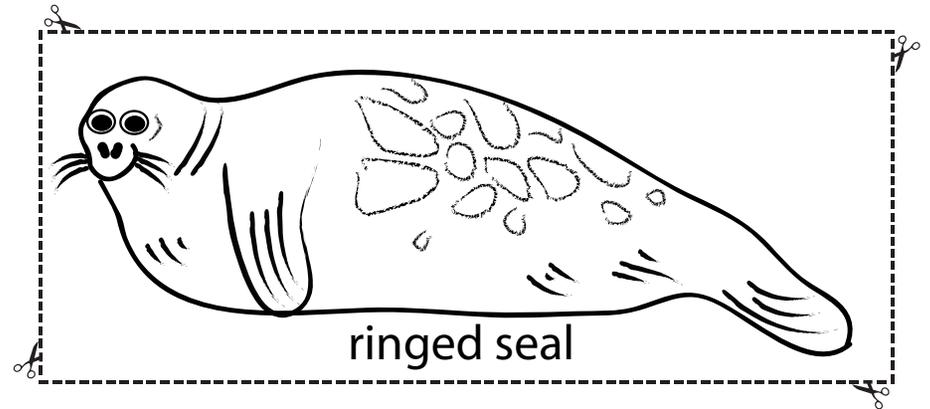
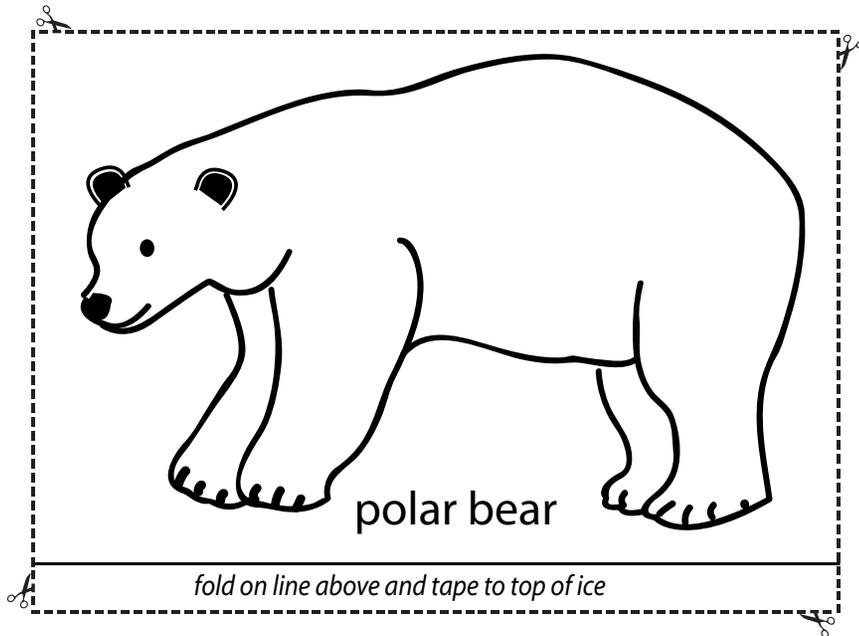
Read on to find out more about the creatures in this picture and how they are all connected in a **food chain**.

Color the pictures in this book. Then cut the pictures out, and make your own Arctic Creature Mobile! The directions for building the mobile are on the last page.

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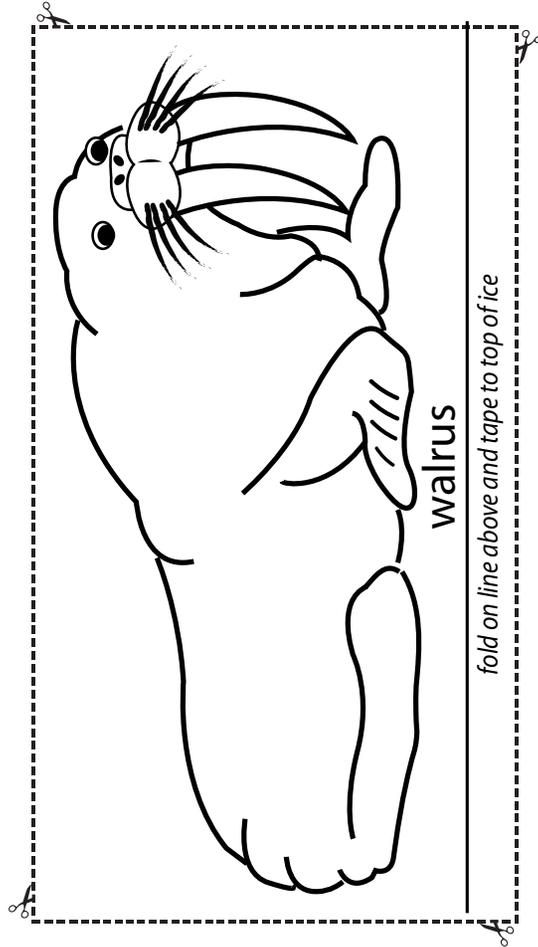
## **POLAR BEAR**

Polar bears spend much of their time on top of the Arctic sea ice. They peer through cracks in the ice looking for ringed seals (their favorite food) in the water below. Polar bears swim in the ocean to get from one piece of sea ice to another. Polar bears have light colored fur – white or light yellow.



## **RINGED SEAL**

Ringed seals spend most of their time in the water under the sea ice. They are very good swimmers. A thick layer of fat keeps them from getting too cold in the chilly water. Because they need to breathe air, ringed seals poke their heads out of holes in the ice to take a breath. Then they dive down to look for Arctic cod, one of their favorite foods. Ringed seals are spotted gray and white.

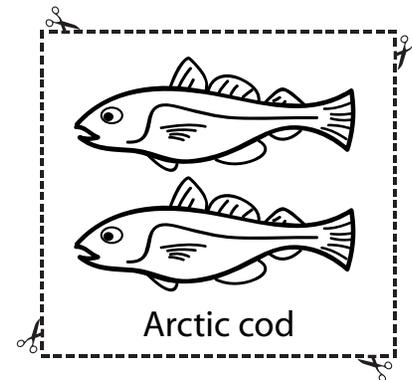


## WALRUS

Walruses in the Arctic spend about half their lives on the sea ice or rocks and the other half in the chilly ocean water. Walruses catch fish such as Arctic cod to eat. They are pink to gray-brown in color.

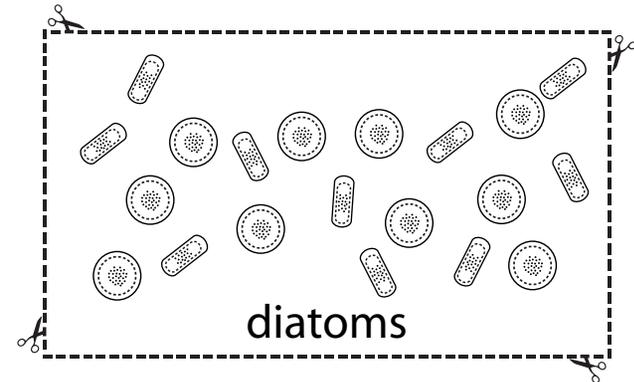
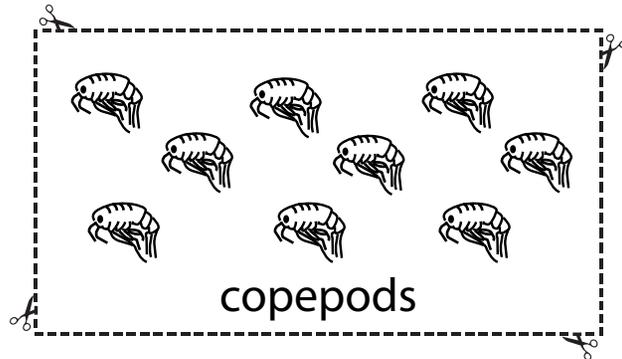
## ARCTIC COD

Arctic cod swim in the water under the sea ice. They eat copepods and other types of zooplankton. They are eaten by marine mammals like seals and walruses. Arctic cod are usually less than 30 centimeters long. The cod's top side is brown with small black spots. Its underside is silvery gray and its fins are black.



## COPEPODS

Copepods are tiny marine animals. They are part of a group called zooplankton, which are creatures that float through the ocean and go where the currents take them. Copepods, like all animals, need to eat food to survive. They eat diatoms and other phytoplankton. Copepods often look yellow or orange.



## DIATOMS

Diatoms are usually green or yellow in color. They are a type of phytoplankton, which start most food chains in the ocean.

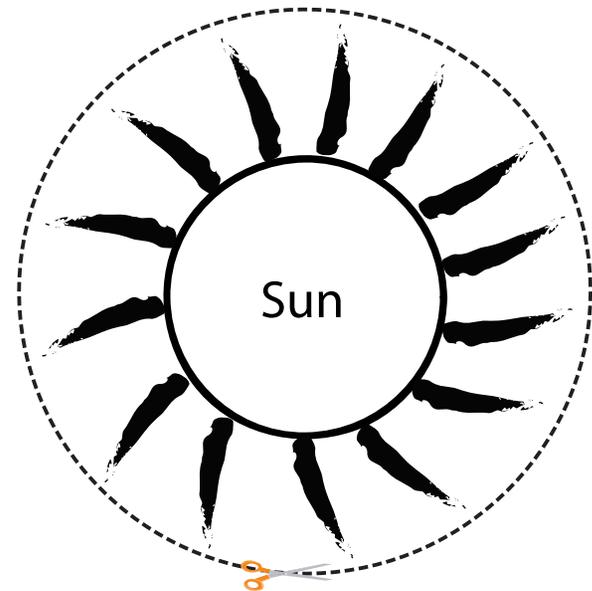
They do not eat food like the copepods, Arctic cod, walrus, seals, or polar bears. So where do diatoms and other phytoplankton get the energy they need? How do they survive?

## **THE SUN!**

The diatoms get the energy they need by taking in sunlight plus a little carbon dioxide and water, and making sugar out of it – the type of sugar they need to survive. This is called photosynthesis.

So the Sun helps the diatoms make their food, the diatoms provide food for the copepods, the copepods provide food for the Arctic cod, the cod provide food for the walruses and ringed seals, the seals provide food for the polar bears.

**They are all connected in a food chain!**



# DIRECTIONS FOR MAKING AN ARCTIC CREATURE MOBILE

## What you'll need:

- A white paper plate (the thick paperboard type) or a white Styrofoam plate
- A sheet of blue construction paper or blue ribbon
- Crayons, markers, or colored pencils
- Scissors
- Tape
- A glue stick or white glue (optional)
- String or thread
- A hole punch



## What you do:

1. Turn the plate upside-down. This will be the sea ice. The bottom of the plate will be where animals like polar bears roam above the ice. Below the plate will be the ocean water. (If you don't have a plate, you can use a piece of cardboard. Paint it white so that it looks like ice!)
2. Attach the blue paper in a curve to one edge of the plate so that it is under the ice. This will be the ocean water where creatures swim and float under the ice. Or if you have blue ribbon, hang it under the sea ice to look like water.
3. Color and cut out the pictures from the pages of this booklet.
4. Fold the bottom of the polar bear and walrus pictures and tape them to the top of the sea ice so that they stand up.
5. Attach a piece of string to the back of each of the other four creatures and tape the string to the bottom of the sea ice so that they hang below it with the blue paper behind them. (Or, you can glue the swimming and floating creatures to the blue paper.)
6. Punch three holes at the edge of the plate. They should be about equally spaced from each other. Thread string through each hole to hang the mobile.
7. Tape the Sun to one of the hanging strings.

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