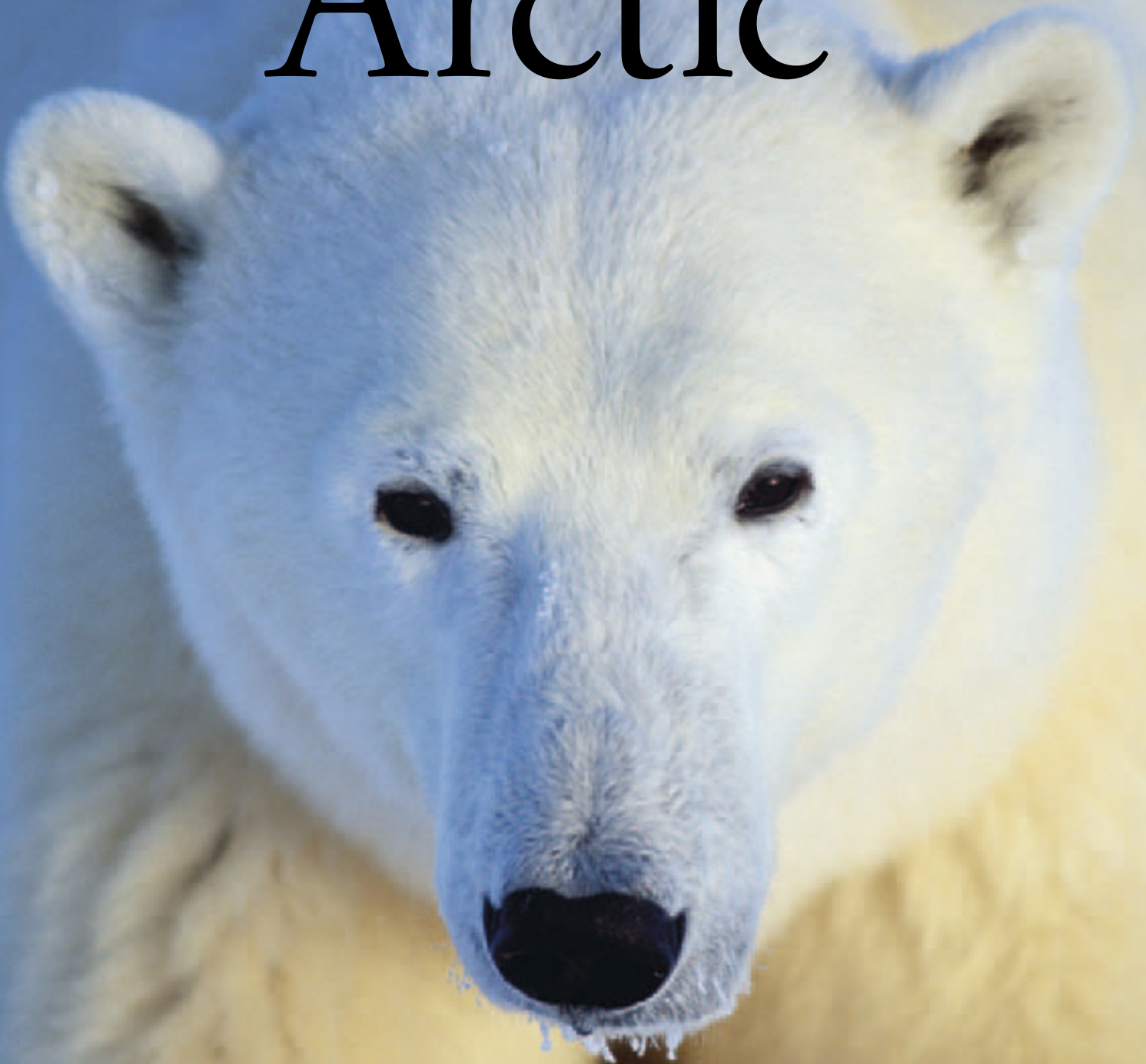


DK 24 HOURS

# Arctic







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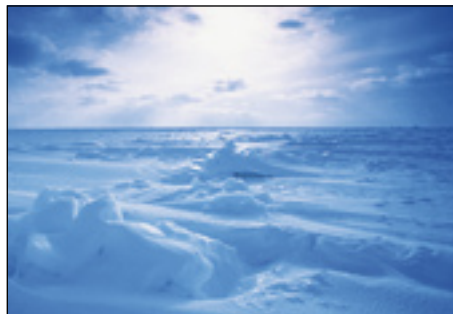
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# Welcome to the Arctic, the



**4:00 am** Dawn

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**10:00 am** Morning

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*The Arctic is not only very, very cold—  
the air is as dry as a desert.*





icy, remote land at the very top of the world.



**2:00 pm** Afternoon

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**6:00 pm** Dusk

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**10:00 pm** Night

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Most of the **Arctic** is a big frozen sea with a few areas of land around the edges. Come and spend 24 hours with the animals that live there.





The Arctic is a huge ocean. It used to be ice covered all year round, but as the Earth gets warmer, more and more of it is thawing.

## Walrus

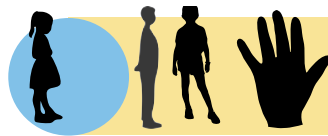
With their huge bodies, walrus are clumsy and comical on land or ice. They spend two-thirds of their lives in water, though, where they move quickly and gracefully, powered by flat flippers that act like big paddles.

## Polar bear

Like walrus, polar bears are natural swimmers that can stay in freezing water for hours. Also like walrus, they have a thick layer of fat to keep them warm. The polar bear is the biggest bear on Earth.

In most of the world, each 24-hour period is part day, part night—long days in summer, long nights in winter. At the poles, though, there is no dark night in summer and no bright day in winter. *24 Hours Arctic* takes you through an April day with the animals that live there.





## Snowy owl

Snowy owls are one of the few birds who live in the Arctic all year. When they nest, their chicks can all be different ages, since the mother starts hatching each egg as soon as it's laid. If food is scarce, the big chicks eat the little ones.



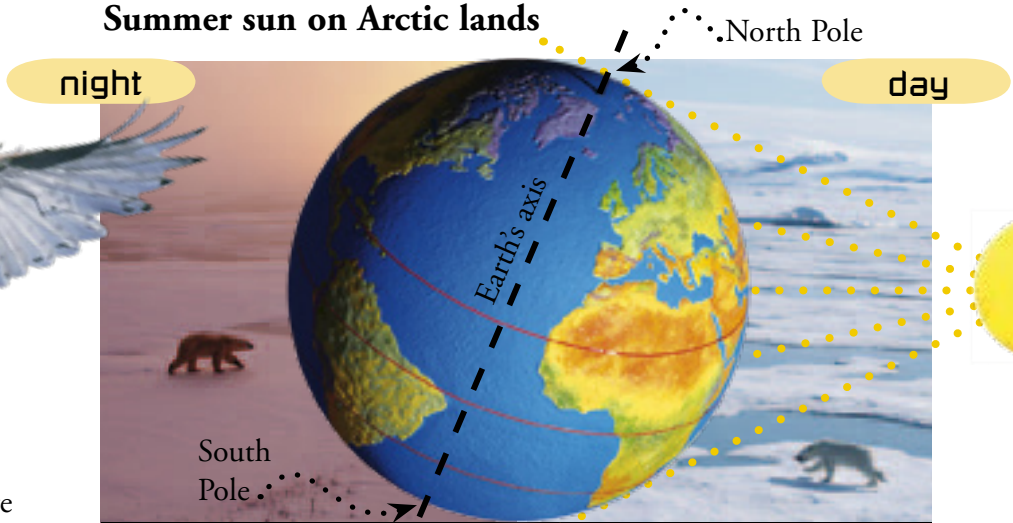
## Arctic deer

In the Canadian Arctic, these animals are called caribou, and they are wild. In north Europe, they are often domesticated, and the term reindeer is used. Whatever their name, there are more of them in the Arctic than any other large mammal.



Throughout the book, these little shapes will appear with outlines of different creatures to give you an idea of how big the animals are. Our guide shapes are based on children about 3 ft 9 in (115 cm) tall.

### Summer sun on Arctic lands



For much of the year, Arctic days are either all light or all dark. This is because the Earth's axis (an imaginary line through the center) is tilted toward the Sun in summer, so its rays shine on the Arctic full-time; the Sun's rays never reach the Arctic in winter. So, while animals in the rest of the world do things (like eat and sleep) at particular times of day, Arctic creatures can do almost anything at almost any time.

## Arctic fox

Although they look similar to other foxes, Arctic foxes have slightly shorter legs, tails, ears, and muzzles. This difference helps protect them from the bitter cold because it means there is less surface area exposed to it.



4:00 am



1 Harp seal pup

**A**t dawn, the short night begins to lift. At this time of year nights are dusky but never really dark, because the Sun doesn't set completely. All by himself on the shadowy ice, a harp seal pup lies resting and waiting for his mother to deliver his next meal.



## What's up at 4 o'clock?

Using his keen sense of smell, a **polar bear** stalks prey. If there's a seal breathing hole nearby, he has a good chance of catching his supper.



There's nothing like a horny hoof and a big pair of antlers when a **caribou** needs to scratch himself in hard-to-reach places.



This **Arctic fox** is tucking into the carcass of a bird he has killed. If he can't eat it all, some other hungry creature will finish the leftovers.



To pull his huge body out of the water and onto an ice floe, this basking **walrus** uses his long pointed tusks as levers.



Unlike other owls, **snowies** don't sleep in the day and hunt at night. They usually set out to find prey around dawn and dusk.







6:00 am



Plentiful in Arctic seas, harp seals are hugely sociable, living and traveling together in big, noisy groups. They gather on floating ice floes far from shore and dive for small fish in deep water. Harp-seal pups, born in late winter, are still very young in April.

...Mother harp seals touch noses with their pups as a greeting, and to identify them as their own.

Because of their pale fur, new babies are called "whitecoats."



## Baby seals



When they're first born, pups feed on their mom's rich milk. Soon they have a thick layer of blubber to keep them warm.



Two female seals both think this young pup is their own. If they can't work things out, there's likely to be a fight.



..... These two are still youngsters, but their white fur has fallen out and a thinner, gray, adult coat has taken its place.

### Ice, ice babies

Just before giving birth (called whelping), female harp seals haul themselves onto winter pack ice in their thousands. An area of ice where pups are born and nursed by their mothers is called a whelping patch.

For their first two weeks, pups just lie on the ice and wait for their moms to come and feed them. Their thick white fur keeps them warm.



7:00 am



Many Arctic animals are white so they can't be seen in the snow. This natural disguise, called camouflage, conceals some creatures from predators and allows others to attack before they're spotted by prey.



Ermine are a kind of stoat, and, like all stoats, they have a black tail tip, even when the rest of their fur is white. If hungry birds spot this, and swoop down to nip it, the ermine can pull away quickly.



Arctic wolves are closely related to ordinary gray wolves. One big difference, though, is their coloring—they are always pale. This snarling creature is almost pure white, but Arctic wolves are sometimes cream or light gray.




A male snowy owl is very hard to see against snow, ice, and pale, cloudy skies.




## Hide and seek




 Look closely at this scene and you'll find a winter-white ptarmigan perched in the snow. In summer, this bird has speckled brown or gray feathers.



 In addition to keeping him warm, the white fur coat on this baby seal makes it very hard for predators to spot him lying on the snow and ice.

**Arctic hares** are not just white in winter—they're white all year round, but in summer they have a slightly grayish hue. The biggest of all hares, they dig for food under the snow.

 Bigger than an Arctic fox, an Arctic hare has huge feet, and can reach speeds of 40 mph (65 kph).



8:00 am



Except for humans, there are no animals in the Arctic that hunt polar bears. In addition to being the biggest bear in the world, this creature is the unchallenged ruler of the northern landscape.



#### **Lone wanderer**

With the exception of females with cubs, polar bears mostly live and hunt alone. They spend much of their lives on sea ice, hunting seals. Males are about twice as big as females; they weigh up to 1,400 lbs (650 kg)—as much as ten people.



# Who's the boss?

## Bear behavior



A polar bear's sense of smell is much better than yours or mine—he can sniff a seal from several miles (kilometers) away.

### Home is where the hunt is

Polar bears live in areas where there is a mix of land ice, sea ice, and sea. In spring, males spend about a quarter of their time hunting. When they're not hunting, they're sleeping or resting.



These young males may look as if they're having a vicious battle. But, like many other animals, they just enjoying play fighting.



Like humans, polar.....  
bears walk on the soles  
of their feet, putting  
their heels down first.



With their warm fur and thick layer of blubber, polar bears get overheated very easily. Sometimes a rest is the best thing.



9:00 am



Female polar bears take care of their cubs until they're two or three years old—fathers aren't involved at all. Moms give birth (usually to two babies) in a den, and they don't come out until the cubs are several months old.

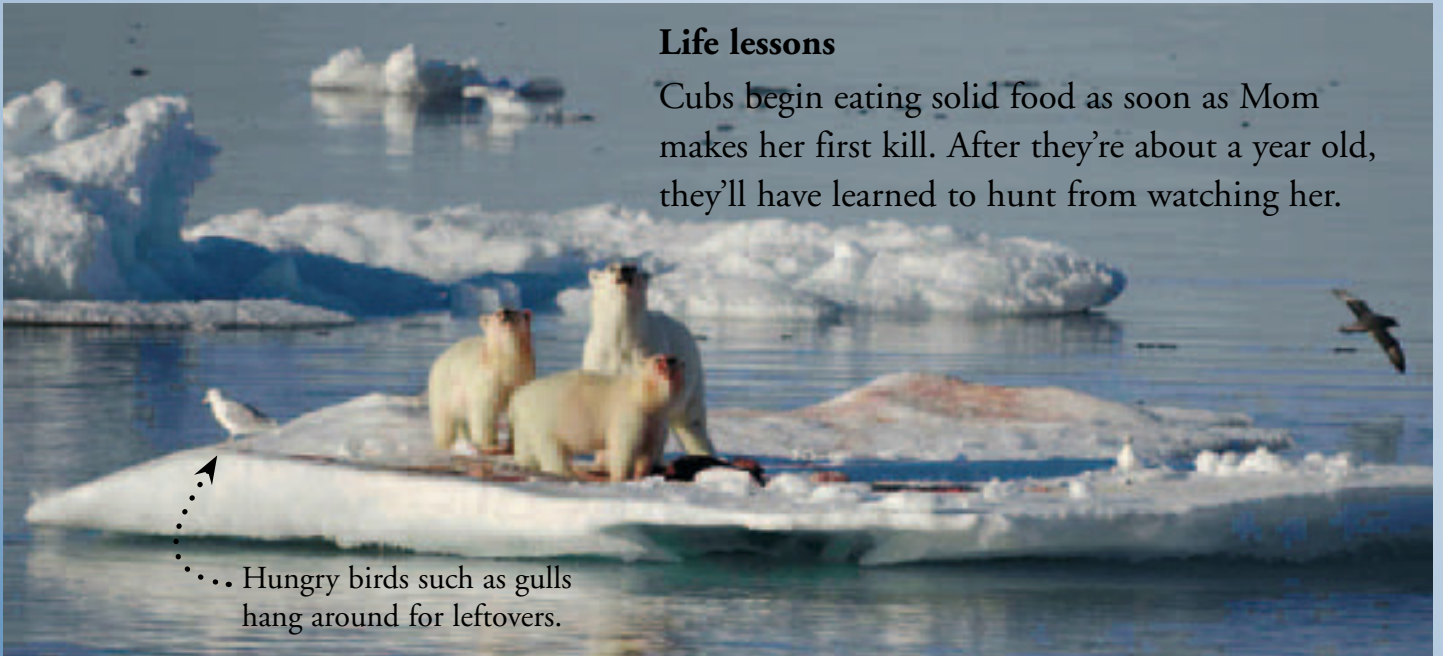
### Safe at home

Cubs are born in the middle of winter, but they stay in their den until March or April. Before moms give birth, they have to store enough fat to nourish themselves for all that time, and to provide milk for their babies as well.



Watched by one of her babies, this mom enjoys being out in the open after her long months in the den.

Dens are usually in snow, but they can be dug out of snow-covered ground as well.



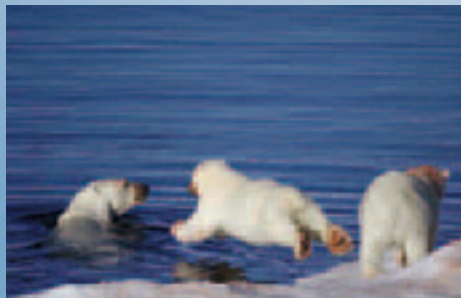
## Life lessons

Cubs begin eating solid food as soon as Mom makes her first kill. After they're about a year old, they'll have learned to hunt from watching her.

... Hungry birds such as gulls hang around for leftovers.



**9:10 am** Mom and her cubs eat and eat until they're stuffed. Nobody cares if they make a big mess.



**9:50 am** Phew! Three full bellies! Mom decides that breakfast time is over and calls her babies to join her in the water.



**9:54 am** Bears do most of their hunting on frozen bits of sea, so they're very good swimmers. Now they'll head home for a long nap.

Moms often make dens in big **snowdrifts** along the coast.





10:00 am



1 Walrus

The Arctic sky is very bright by 10:00 in the morning. A lone walrus, tired of sunning himself on an ice floe, lowers his body back into the sea. The visible splash is made by one of his back flippers, which propel him through the water.





## What's up at 10 o'clock?

Being able to break ice with his front paws is a very important hunting skill for a **polar bear**. Who knows? He might find food underneath.



There's still snow on the ground, so **reindeer** use their hooves and snouts to get at food underneath it. Mosses and lichens are particular favorites.



Male **Arctic foxes** usually hunt alone. They can cover huge distances—up to 600 miles (1,000 km)—in one trip looking for food.



**Walrus** are happy in water, and they're excellent swimmers. Like all his family, this one can stay submerged for up to half an hour.



Female **snowy owls** are a little bigger than males and flecked all over with brown. Males are mostly white with a few flecks on their chests and tails.





11:00 am



With their chubby cheeks and button noses, walruses look very cuddly. Big males are hard to cuddle, though—at 12 ft (3.5 m) long and 3,750 lbs (1,700 kg), they are the size of a small car.



Walruses are mammals, so they breathe air like we do. This one is swimming and breathing out at the same time.



...Males love to bask together in the sun. This group has gathered on pack ice in the sea.



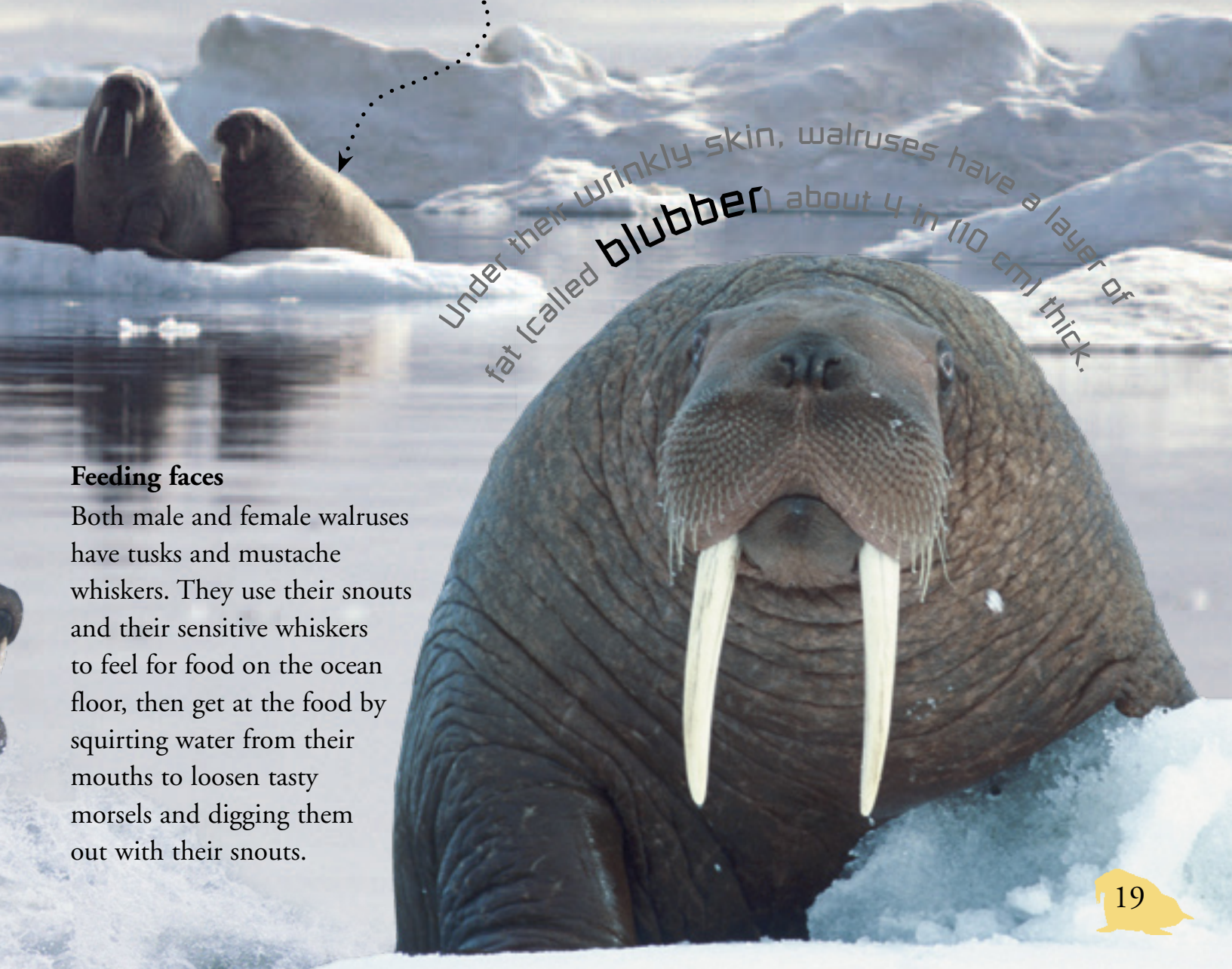
# Lumbering giant

Walrus graze on the seabed for clams, sea cucumbers, and whelks. They live in shallow water so they can reach the surface to breathe.



Although they spend two-thirds of their lives in the water, walrus sometimes surface and rest on ice floes.

Male walrus (or bulls) put on noisy displays of aggression. While they don't fight with their sharp tusks, these can cause injury accidentally. Some experts think they help to locate food.



Under their wrinkly skin, walrus have a layer of fat (called blubber) about 4 in (10 cm) thick.

## Feeding faces

Both male and female walrus have tusks and mustache whiskers. They use their snouts and their sensitive whiskers to feel for food on the ocean floor, then get at the food by squirting water from their mouths to loosen tasty morsels and digging them out with their snouts.



Lots of animals spend time under the sea. Even though it's freezing cold there, it's quite a bit warmer than the Arctic air, and there are lots of delicious fish to eat.



Narwhals are a type of small whale. The males have a single, straight tusk with spiral grooves along its length. Like a walrus tusk, this is actually a long tooth. Many historians think it inspired the myth of the unicorn.



In addition to swimming, walruses can also sleep underwater. To do this, they fill sacs in their throats with air. These act like floats, allowing the creatures to bob up and down while they snooze.



**Pure white** with smiley mouths, beluga whales have sharp teeth for eating fish and squid. Because they're small and a little slow, belugas are eaten by bigger whales—and even by polar bears.



# Under the ice



Harp seal babies start to swim and catch fish to eat when they're only about four weeks old.



Seals move through the water by stroking alternately with their two back flippers.



Plankton, the main food of baleen whales, contains millions of tiny plants and animals.



Among the chief foods in plankton are long, red, shrimplike creatures called krill.



The "whalebone" used to stiffen corsets is actually **baleen** from whales.



Unlike narwhals and belugas, bowhead whales have no teeth. They filter plankton from vast amounts of water passing through a big fibrous fringe (baleen) in their mouth.



1:00 pm



Along Arctic shores, sheets of sea ice are firmly attached to the land. The place where this ice meets the open water—called the floe edge—attracts lots of animals and birds.



From the floe edge, polar bears can dive into the sea for safety if they sense danger.



During late spring and summer, there are lots of birds around the floe edge. This duck is called a spectacled eider—can you guess why?.....



**The floe edge moves** with the seasons. In the winter, it's at its farthest point from land. Then, when the sea ice begins to melt in spring, the floe edge moves farther and farther in. Wind, waves, and currents also wear it away.

Eiders are “diving ducks”—they dive in the water for seafood and fish.



## Life on the edge



Scavenging birds such as these ravens follow the floe edge for food. Many ravens not only breed in the Arctic, but they also spend all winter there.



Sea mammals feed on fish, seafood, and plants at the floe edge. This bow whale is filtering plankton through the baleen fringe in its mouth.



Some floe-edge waters are rich in shrimp and clams. This bearded seal's head is red from the high iron content of the mud where he digs for these tasty creatures.



Common guillemots feed underwater on small schools of fish, crustaceans, worms, and squid. They can dive up to 165 ft (50 m) deep.



There are plenty of walrus at the floe edge when it's close to their shallow feeding grounds.





2:00 pm



1 Little auks

Mid-afternoon, and the sky is full of little auks (also called dovekies). They breed in huge numbers in the spring, laying their eggs in sheltered holes and crevices in slopes or cliffs overlooking the sea.



## What's up at 2 o'clock?



Happy paddling through icy water, a hungry **polar bear** travels from one ice floe to another in search of a plump fish or marine mammal to eat.



Since they've broken into a gallop, these **caribou** have probably been startled, or they sense danger lurking near their herd.



To pounce on his prey hiding in the snow (a vole or a lemming, maybe), this **Arctic fox** springs high up into the air.



**Walrus**es have thick, rough, very wrinkly skin covered with short, coarse hair. They are usually a dark grayish-brown color.



A **snowy owl** cruises the sky looking for lemmings to eat. If there are plenty, these birds live in the Arctic all year. If not, they go south in winter.





3:00 pm



Some Arctic birds, like snowy owls, ptarmigans, ravens, and some guillemots, live there all year round; they are called residents.

Others, such as geese, ducks, and terns, fly there to breed during the summer

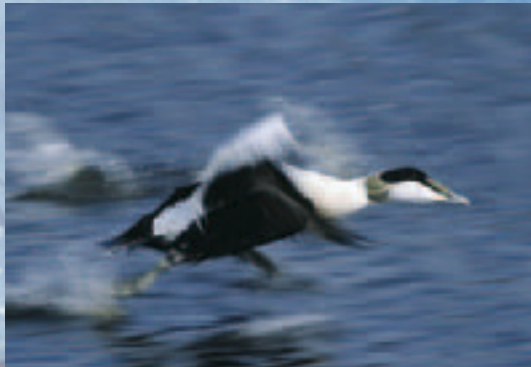
months; these birds are known as migrants.

The Arctic tern completes a spectacular migration every year—it flies 22,000 miles (35,400 km) to the Antarctic and back again!



Eider ducks are migrants.

They eat mostly shellfish—especially clams, which they crush with their strong bills and swallow whole.



Long-tailed (oldsquaw) ducks, which are very common in the Arctic, have dramatic brown-and-white coloring. They make a lot of noise calling to each other.

When they're not breeding, common guillemots travel over or under the sea to find food. This one is doing his underwater flying trick.



When they're not breeding, common guillemots travel over or under the sea to find food. This one is doing his underwater flying trick.



Arctic terns live and breed in large groups called colonies.....





## Polar flight



...Every so often, every bird in the colony suddenly goes quiet, then—all at once—they all fly away. This phenomenon is known as the “dread.”



Snow geese are white, with half-black wings. They breed in the Arctic, but they don't live there all year round.



Beside a glacier, a tern colony breeds and feeds alongside fulmars and kittiwakes, other Arctic birds that get nearly all their food from the sea.

Check out our cool black-and-white feather coats.



**Brännich's guillemots** (or thick-billed mürres) breed on rocky cliffs in huge, smelly, noisy, colonies. These birds are strong fliers, but clumsy on takeoff and landing. In fact, they move more easily through water than air.





4:00 pm



The furry lemming occupies a very important place in the Arctic food chain—at the very bottom. Every one of the region’s meat-eating mammals and birds see him as a snack. For some, like foxes and snowy owls, he’s their main diet, while others turn to lemmings when bigger, meatier prey is not available.



Long-tailed jaegers feed mainly on lemmings; sometimes they steal them from other birds. They even dig in the ground to get into the lemmings’ burrows.

**Because the lemming** is a staple food for so many other creatures, animal communities in the Arctic depend on its existence. So, when the lemmings’ food is scarce and their numbers fall, the other wildlife suffers as well.

I eat mostly plants, but I like to eat the odd insect too.



“Please don’t see me!”



Collared lemmings grow long winter claws on their front feet so they can dig through the snow for their food.



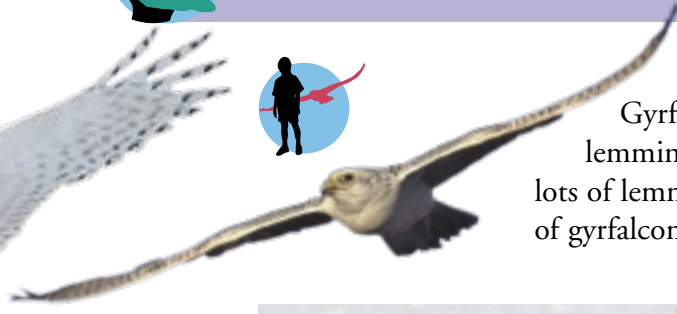
# Arctic fast food



Snowy owls eat mostly lemmings, so when there aren't enough of them, snowy numbers drop dramatically.



Gyrfalcons need lemmings—when there are lots of lemmings, there are lots of gyrfalcons, too.



Ermines may look sweet to us, but lemmings and voles—their chief prey—are terrified of them.



The powerful Arctic wolf really prefers caribou or musk oxen to eat, but when there aren't any around, he'll settle for seals, ducks, hares—or lemmings.



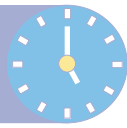
Small mammals in general—and lemmings in particular—make up the Arctic fox's diet.



Lemmings are a big favorite of the wolverine, but it will eat other small animals—and some very big ones, too!



5:00 pm



**Mighty musk oxen** are the only Arctic creatures who never need to seek shelter, no matter how bitter and blizzardy it gets. Their

name comes from the

strong scent the

males develop

during the

mating season.

*This scary formation is*

#### **Coat of many layers**

Each musk ox has a covering of coarse, shaggy hair (called guard hair) that hangs down like a long skirt over its stocky body. Underneath this are fine, soft hairs that provide lightweight insulation.



# Hairy beast



This very new calf has bumps where his horns will grow and a coat of short guard hair. Sometimes he keeps warm under his mother's skirt.

Because they're being threatened (probably by wolves or a polar bear), these adults form a circle facing outward, with the youngsters safe inside.

called a "defensive ring."

## Communal living



**5:02 pm** Once snow falls, it forms a crust that lasts until the thaw. In winter, oxen use their hooves to get at the lichen and grass they like to eat.



**5:14 pm** Adults can run as fast as 25 mph (40 kph). They move fast to escape enemies, and youngsters like to chase each other just for fun.



**5:45 pm** These males are "jousting"—facing off, backing away, then running at each other and head-butting. They will do this until one gives up.



Beneath their dark, hairy skirts, musk oxen have pale, furry legs.....





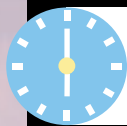
6:00 pm



1 Reindeer

Since they've spent the winter in the barren Arctic, these reindeer are very thin, but this may not be due to starvation. Some experts think that when winter approaches, reindeer instinctively eat less to reduce their weight. As a result, they don't need so much food to survive.





## What's up at 6 o'clock?

Despite being well fed and fat, this **polar bear** has killed a seal. He may eat only its skin and fat, but a hungry bear would strip the bones.



**Caribou** don't live in the very coldest part of the Arctic, but they wander very far north in spring, when the females (called cows) have their babies.



When a blizzard threatens, this **Arctic fox** protects his face from the cold by wrapping his thick, bushy tail all around his body.



**Walruses** grunt very loudly when they're fighting or irritated. When a group gathers together, the racket can be heard miles away.



When a **snowy owl** captures prey, she hides it from other hunters by tucking it under her wing. This behavior is called "mantling."





7:00 pm



**Arctic deer** migrate long distances, their hooves are adapted for snow, and males and females both have antlers. Members of this species (*Rangifer tarandus*) that live in Europe and Asia are called reindeer.

Those in North America are caribou.

Arctic deer shed their antlers and grow them again every year.



**Reindeer and caribou** form large herds that travel north in spring, when the young are about to be born, and south in winter, to find food and shelter. Caribou run wild, while reindeer are usually domesticated.



## Traveling tails



Arctic deer (like this caribou) use their hooves and snouts to get at grasses and lichens under the crusty snow.



Both caribou and reindeer migrate huge distances (up to 600 miles/1,000 km), but reindeer like these are usually accompanied by native human herders.



An Arctic deer's hooves help it to paddle in water and walk on snow. These caribou are crossing a river on the route of their fall migration.



8:00 pm



### Survival of the fiercest



Jaegers are large, aggressive seabirds that eat small mammals, fish, and other birds. This one is tucking into a tasty ptarmigan.



Having hunted and killed a baby hare, this Arctic fox is about to eat him up.



Ferocious wolverines are capable of killing mammals much larger than they are. This one is feeding on a caribou carcass.

To us, the Arctic seems a harsh and cruel place where food is scarce. Many animals survive by hunting, killing, and eating other creatures—a way of life that is common in nature. Animals that do this are known as predators.

...Wolves cover huge distances across open icescapes in their search for food.



There's nothing a polar bear likes more than a delicious seal supper on sea ice.





## In for the kill



This pack of wolves is chasing a herd of hairy musk oxen at high speed.

**The Arctic wolf** will hunt and kill more or less any creatures he can find—small ones like ptarmigan, hares, and lemmings if they're around, or big musk oxen and caribou, if necessary.





9:00 pm



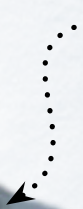
When you go outside in the winter, you wear special shoes or boots to keep your feet warm and to stop you from slipping on ice and snow. In the Arctic, animal feet need the same protection as yours would, so nature has provided special adaptations for the harsh environment.



A reindeer's toes spread out, acting like snowshoes to distribute his weight over a wide patch of snow or ice. The feet stay flexible because they're full of soft, fatty tissue.

**The Arctic hare's long, silky, white fur** covers his whole body, including his legs and feet. In the bitterest cold, hares sit on their back feet, which are insulated with particularly thick, coarse, yellowish fur.

For grip, Arctic hares have clawed toes—four on the back paws and five on the front paws.





# Snow toes



The ptarmigan's thick feathers reach the tips of his toes to protect him from cold. During the winter, feathers cover even the soles of his feet to enhance his grip.

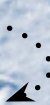


Even though you can't see them, there are hundreds of tiny, wartlike bumps on the bottom a walrus fin. These help the huge creature to grip onto slippery ice floes.



Polar bears have thick, black, hairless, bumpy pads on the soles and toes of their paws. There are five clawed toes on each paw, with long hair in between.

When they walk across pack ice, polar bears leave clear tracks. These are very fresh, so the bear can't be far away! .....



Humans, polar bears' only predators, use their tracks to hunt them.





10:00 pm



1 Polar bear

**A**t nighttime in April, Arctic light is soft, pinkish, and dim. The Sun is still in the sky, even though it's very low, so animals don't necessarily sleep. Lone polar bears like this one may hunt now, moving slowly and stealthily across large expanses of ice.



## What's up at 10 o'clock?

When a **polar bear** yawns, you can see that his nose, mouth, and tongue are black. Underneath his white fur, his skin is black too.



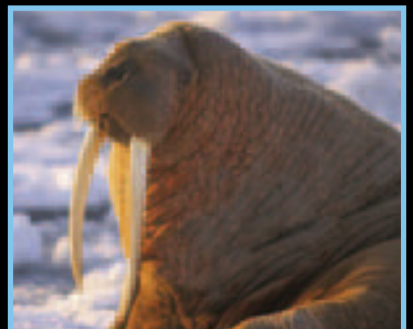
In Norway, herds containing thousands of **reindeer** are moving north for the summer—they even travel in heavy snowstorms.



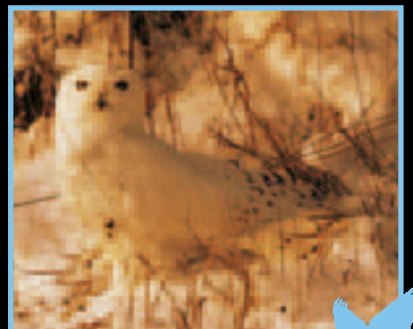
This **Arctic fox's** thick winter coat keeps him cozy. In the summer, his fur is not only a different color—grayish brown—it's much finer, too.



**Walrus** tusks, which are actually long teeth, help to define a male's status within a group. The ones with big tusks tend to be the leaders.



A **Snowy owl's** big eyes are incredibly powerful—he can see well in the dark, and he can also spot prey on the ground from high in the sky.





11:00 pm



Food can be scarce in the Arctic, so some animals eat what other animals leave behind from a kill. They also feed on the bodies of creatures that have died naturally, or even on human garbage. Occasionally—when starvation threatens—they go even further ...



A hungry wolf sniffs shed antlers in hope of finding a shred of flesh to chew on.

*Polar bears strip whale bones completely clean—  
of skin and blubber as well as flesh.*



...Scavenging means eating dead animals or human garbage.

**Washed up on an Arctic beach**, the carcass of a bowhead whale attracts scavenging polar bears. Although we think of seals as their main food, some experts believe that up to ten percent of their diet is made of whale meat.



# Scavenger hunt



Ravens are skilled scavengers that are often found picking at the carcasses of seals and caribou.



..... Glaucous gulls are very large birds.



It's not only polar bears that eat seals. Glaucous gulls can't kill seals, but they scavenge on dead ones.



On land, Arctic foxes can be found hanging around polar bears. When food is very, very scarce, they sometimes eat bears' droppings.



Wolverines are well suited to scavenging—their powerful jaws and strong neck muscles allow them to crush bones and bite through frozen flesh.





Animals who spend their lives in the Arctic use up lots of energy just keeping warm, as well as moving around finding food. They need plenty of rest, but because there aren't always light days with dark nights here, they sleep whenever they feel like it.



.....This sleepy fox tucks his wet nose under his tail for warmth.



Arctic foxes often wake up late in the evening, since they tend to spend all night hunting for lemmings. When they sleep, they curl themselves into tight balls.

*In April, the Arctic can still be colder than your home freezer.*



A **big slab of sea ice** may seem like a funny place to lie down for a nap, but walruses are very comfortable there. They don't have soft fur like polar bears or foxes, but their blubber is so thick and warm that they can sleep soundly on the coldest, hardest bed.



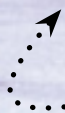
## Out cold



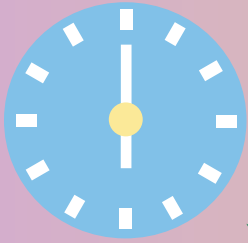
Before he snuggles down for a nap, this polar bear digs out a comfortable hollow in a soft snow bank. Looking on is a pair of foxes hoping to scavenge his leftover food.



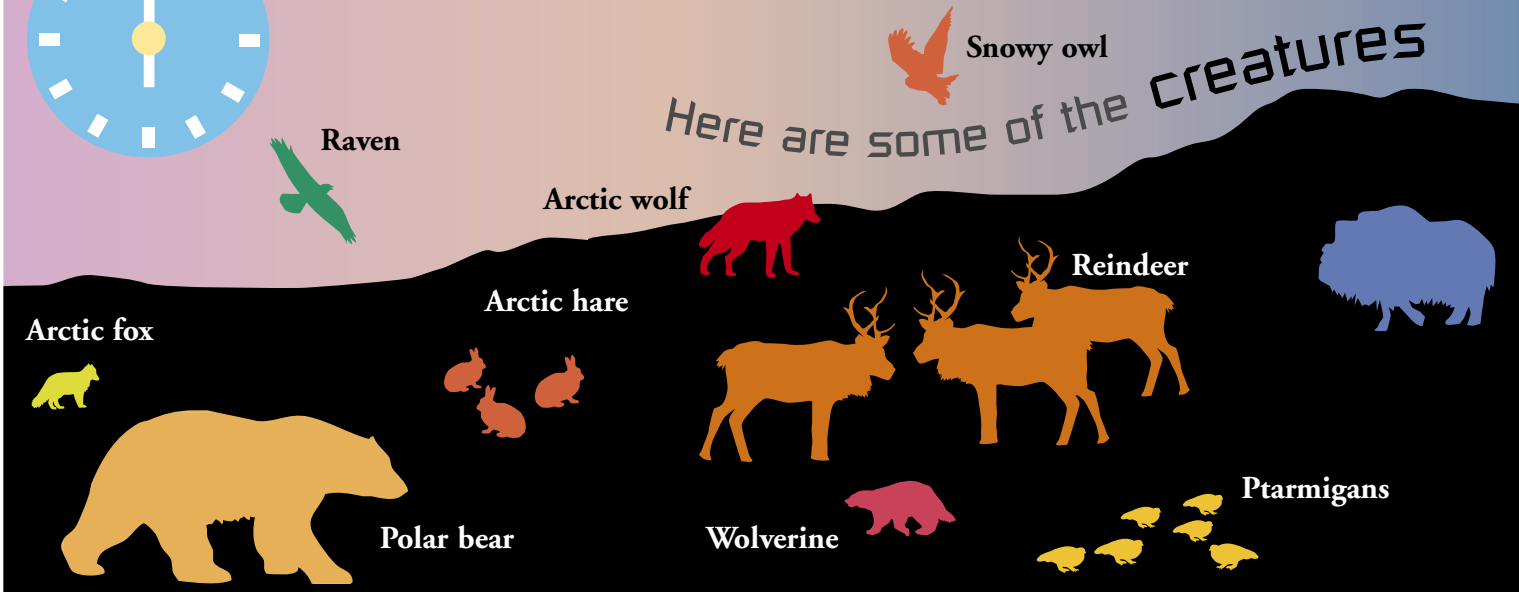
Having just made their way through a fierce Arctic snowstorm, a herd of migrating reindeer settles into the fresh snow for a much-needed snooze.



The walrus in the middle of this cozy spoon-fashion group are adults. The ones at the ends, with smaller tusks, are youngsters.



## From dawn to dusk



## Glossary

Here are the meanings of some of the important words you will come across as you read about the Arctic and the animals that live there.

**BALEEN** The long fringe made of keratin (like fingernails) that some whales have in their mouths to filter plankton from the water.

**BLUBBER** The thick layer of fat that some animals (like seals) have to protect them from cold.

**BREED** To produce babies.

**BURROW** A hole in the ground where an animal lives. Lemmings live in burrows.

**CARCASS** The dead body of an animal.

**COLONY** A group of animals that live together. Arctic terns and guillemots live in colonies.

**DEN** A safe resting place dug out of ground or snow by a wild, usually predatory, animal. Female polar bears make dens.

**FREEZING** What happens when water turns into solid ice.

**HERD** A large group of animals such as caribou that live and travel together.

**HOOVES** The curved, horny feet on some animals. Reindeer and musk oxen have hooves.

**ICE** Water that gets so cold it freezes solid.

**ICE FLOE** A flat piece of floating sea ice.

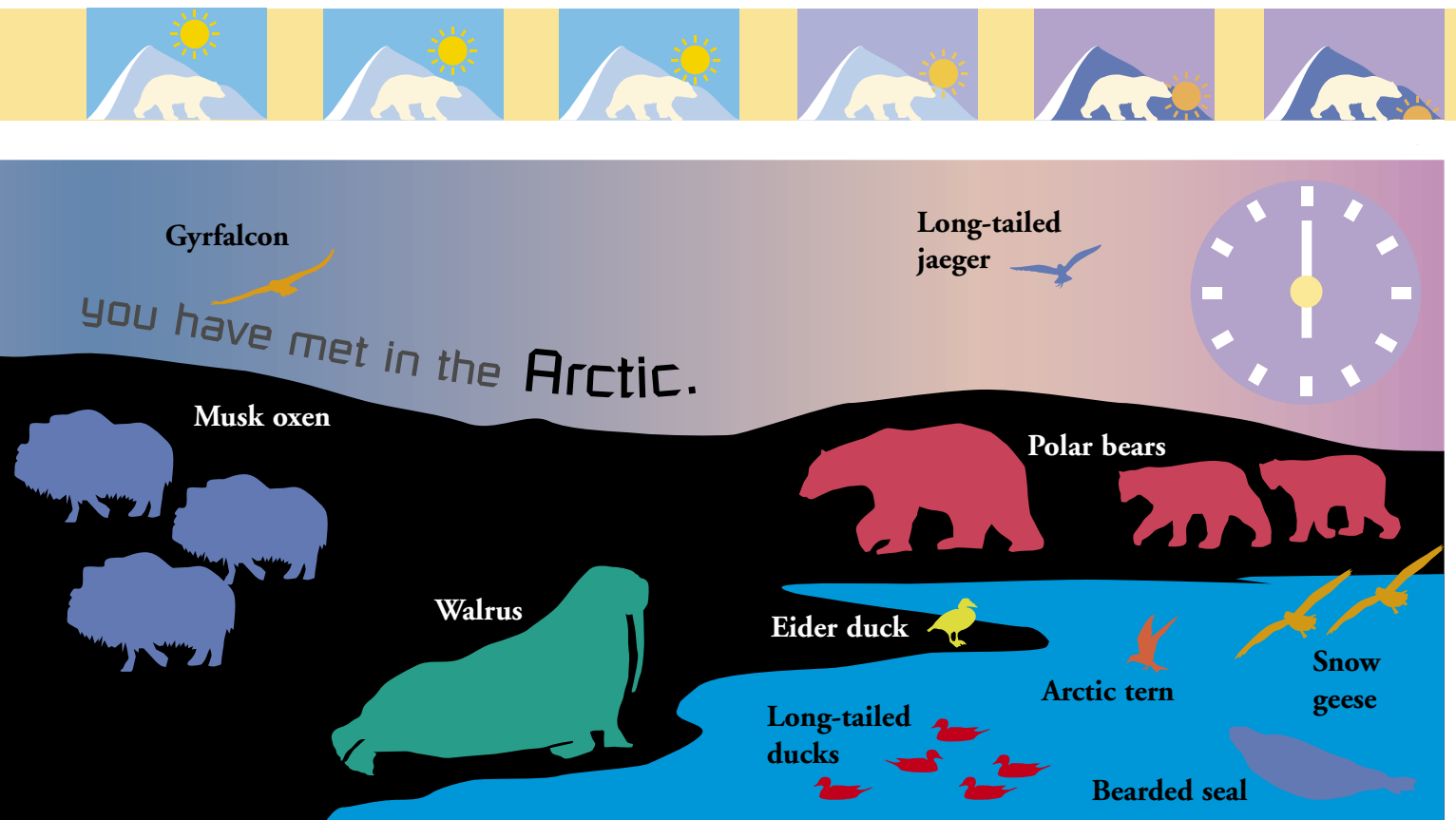
**INSULATION** Material used to keep warmth or cold (or even sound) in one place. Blubber provides insulation from cold.

**MAMMAL** A warm-blooded animal that drinks its mother's milk when it's a baby.

**MARINE** Something connected with the sea. Seals and whales are marine mammals.

**MIGRATION** Moving from one place to another according to the seasons. Animals usually migrate to breed or find food.

**NATIVE** Animals, plants, or people that belong in a particular place. Polar bears are native to the Arctic.



**PACK ICE** The large masses of ice that result when the frozen sea breaks up.

**PLANKTON** The mass of tiny plants and animals that float around in the sea and provide food for fish and marine animals.

**PREDATOR** An animal that hunts, kills, and eats other animals.

**PREY** An animal that is hunted, killed, and eaten by a predator.

**SCAVENGER** An animal that feeds on the carcasses of other animals, or on human garbage.

**WHELPING PATCH** A sheet of pack ice where a large group of female seals gather to give birth to their pups.

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