

**THE
NATURE YEAR**



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CONTENTS



THE WORLD · 6



NORTH AMERICA · 12



AFRICA · 18



AUSTRALIA · 24



ARCTIC · 8



NORTH AMERICA · 14



AFRICA · 20



ANTARCTICA · 26



EUROPE · 10



NORTH AMERICA · 16



AUSTRALIA · 22

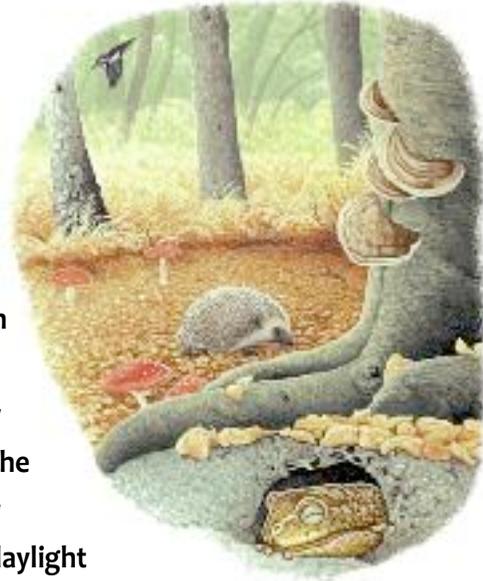


THINGS TO DO · 28

THE WORLD IN NOVEMBER

ANIMALS IN THE northern hemisphere are busy making preparations for the coldest months ahead. In the southern hemisphere, warmer weather and longer hours of daylight prompt a flurry of animal activity.

By November, many northern hemisphere birds have flown south to warmer regions. Those that stay behind gather in huge flocks and roost in their hundreds to keep warm. In rivers and ponds, fish, frogs and turtles move to the deepest waters where temperatures are warmer. Some, such as carp, even bury themselves in the mud.



At the first sign of cold weather, a hedgehog starts to look for a place to spend the winter. Meanwhile, a toad begins its long hibernation in a hole under a tree root. Decaying leaves on the forest floor provide ideal conditions for fungi to grow.

Some animals, such as hedgehogs and dormice, go into hibernation: their breathing and other body systems slow down in order to conserve energy. Many other animals shelter in dens and burrows, under logs or inside tree hollows. They sleep for long periods, but, unlike true hibernators, they will venture out to forage for food during periods of mild weather.

In Antarctica, the warmer temperatures cause plankton, tiny plants and animals in the water, to multiply. With this increase in food, fish and whales migrate to these southern waters to feed. King penguin chicks, hatched last summer, are on the brink of adulthood. This 10-month-old's adult feathers are finally coming through and it has built up a thick layer of blubber. Before long, it will be out hunting for itself and its parents will breed again.



ARCTIC

IN THE ARCTIC WINTER, many animals change colour for better camouflage against the snowy landscape. Among those that turn white are the ptarmigan (right), the Arctic fox (below) and the stoat (opposite). Camouflage enables the animals to evade predators but also, in some cases, to sneak up on their prey.



Stoats are ferocious predators, sometimes attacking animals over twice their own size. They will search for prey inside burrows or in other likely hiding places. Their slim bodies enable them to follow animals into

narrow tunnels and hunt them underground or beneath the snow.

Stoats kill their prey with a sharp bite to the back of the neck.



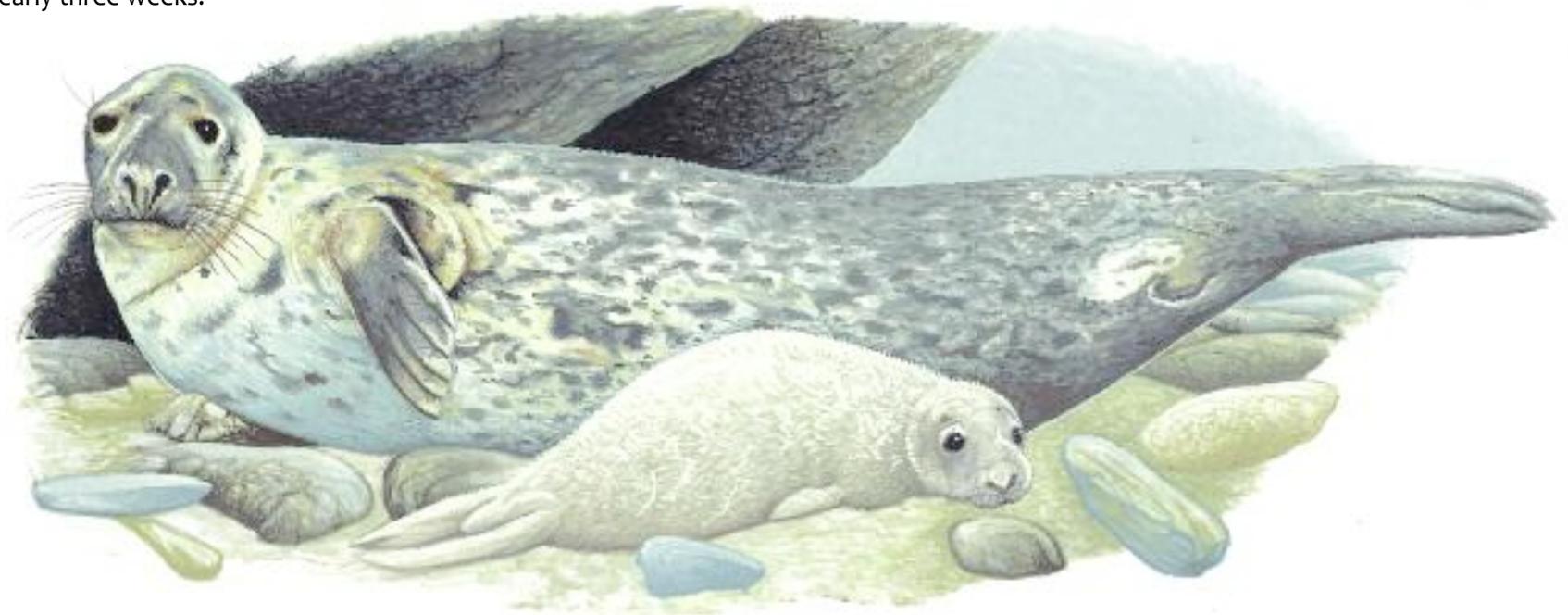
In winter, lemmings burrow under the snow as they search for moss. The tunnels have bed chambers, crossing places and even toilets. This lemming has little chance of escape now a stoat has found its burrow.

EUROPE

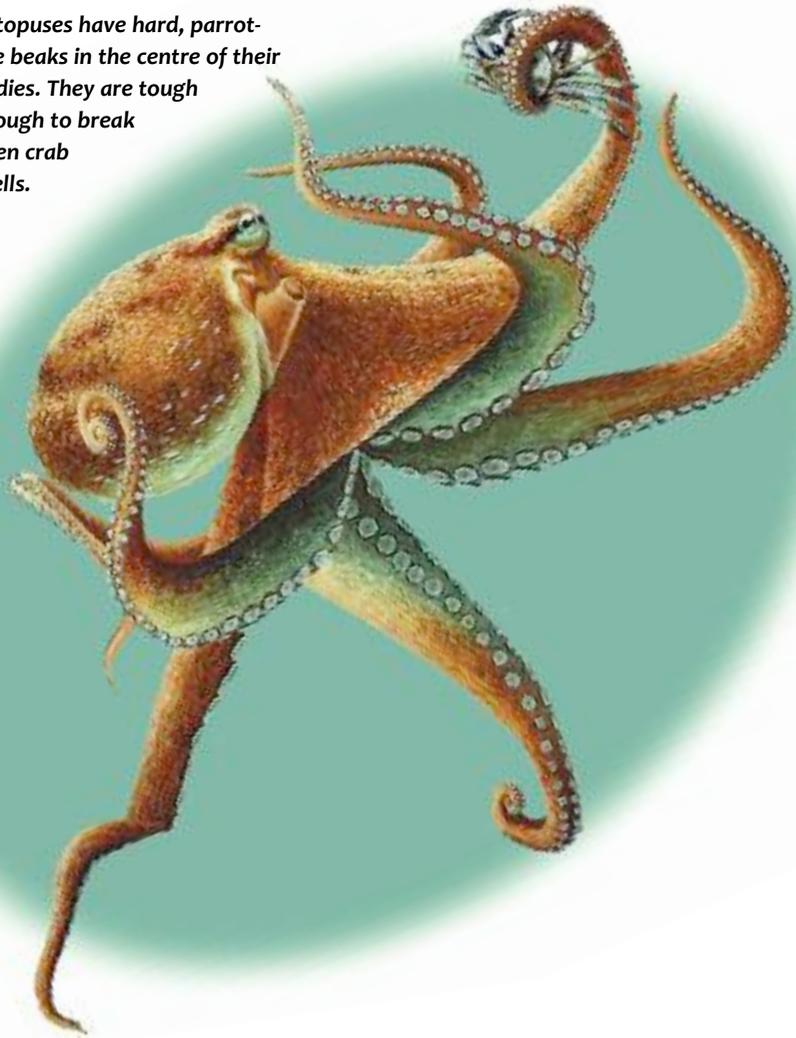
EVERY WINTER grey seals gather along remote coastlines in Europe to mate and raise their young. Each female gives birth to a single pup covered with soft white fur. Mother and pup bond quickly, learning each other's voices and scent. Pups suckle on their mother's milk for nearly three weeks.

The female then moves down the beach in search of a new mate. Males fight fiercely over females. Plumper males, with less need to hunt for food, have an advantage over their rivals as they spend more time on land.

Once the female has mated, she swims away to hunt for her first meal in weeks. Shortly after this, her pup sheds its white fur and grows an adult, waterproof coat. Now it can take to the water itself. If they survive infancy, grey seals may live for up to 35 years .



Octopuses have hard, parrot-like beaks in the centre of their bodies. They are tough enough to break open crab shells.



NORTH AMERICA

THE PACIFIC RED OCTOPUS has eight muscular arms for fighting, grasping things and walking along the seabed. Each arm has a double row of suckers, which give it excellent grip. It flicks out its arms to grab its favourite food, fish or crabs, whenever one comes within range.

Octopuses don't live long—a year or two at most—and they reproduce just once in their lives, at the end of the summer. Females lay thousands of eggs, which they hang on a rock out of sight. The mother guards her eggs until they hatch 6-8 weeks later, usually in November. It is the last thing she does before she dies. Newly hatched babies are tiny and drift with sea currents. Many will be eaten before they can grow into adults.





NORTH AMERICA

THE MANATEE SPENDS its life in the water, never coming out on to land. A relative of elephants, it lives in warm, shallow waters, grazing on seagrass and other plants. Manatees spend most of the year in seagrass meadows in the Caribbean Sea. But in November, they move north to the waters off the coast of Florida.



Manatees often rub against each other and sometimes “kiss” by touching noses.

Despite their size, manatees have relatively little body fat, and cannot survive in waters below 20°C. In the lagoons and estuaries of Florida, natural springs keep the water warm throughout the year. A few manatees even gather in warm water inlets close to power plants. In spring, the manatees return to the freshly replenished seagrass meadows of the Caribbean.



NORTH AMERICA

BALD EAGLES MATE for life, returning to the same nest year after year. Their enormous nests, made from twigs and branches, are usually located on treetops near rivers or coasts. They pick the highest spot available for the best views of the land all around them.

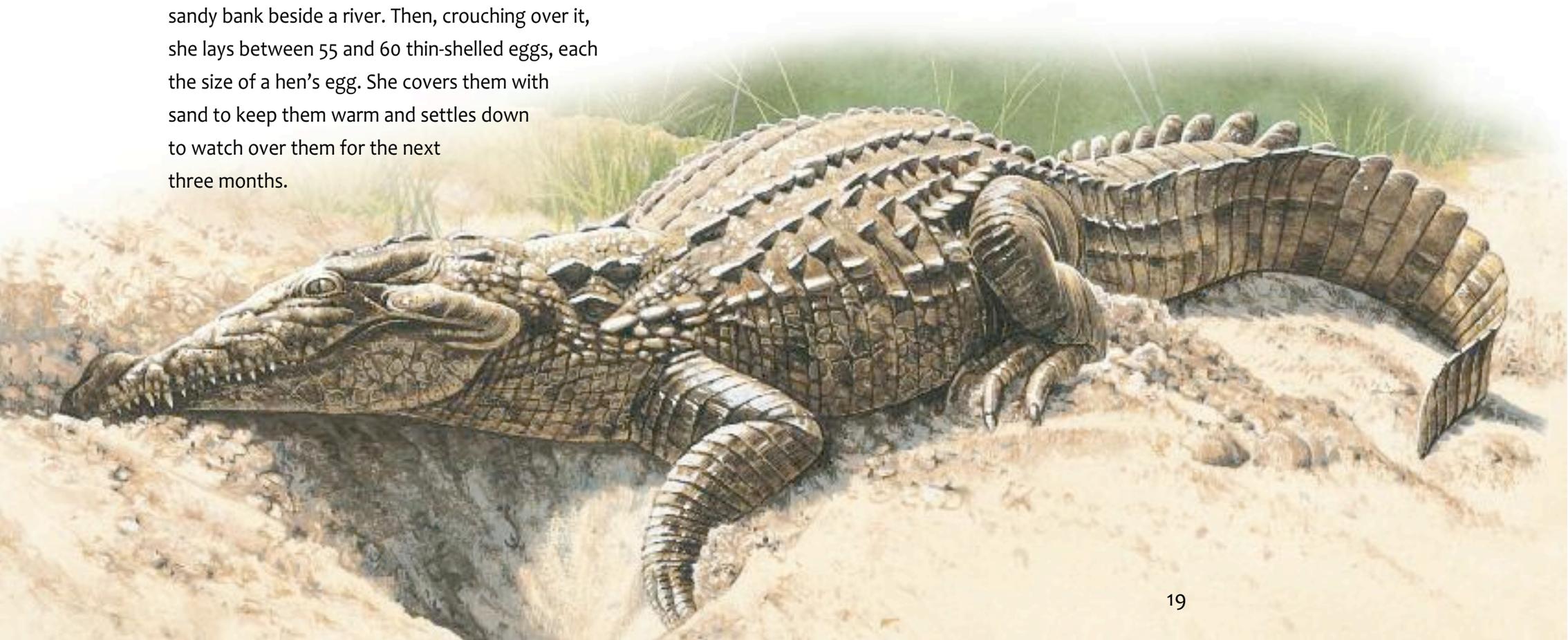
In the south of America, couples are tending to their nests. Each year, the eagles bring fresh nesting material to repair and enlarge their nest. The largest nests can measure up to six metres across. The female lays between one and three eggs, and the parents take turns to incubate them. While one parent sits on the eggs, the other searches for food or more nesting materials. Chicks hatch out around five weeks later.



AFRICA

NEARLY TWO MONTHS after mating, a Nile crocodile is ready to lay her eggs. Using her powerful front legs, she digs a hole in a sandy bank beside a river. Then, crouching over it, she lays between 55 and 60 thin-shelled eggs, each the size of a hen's egg. She covers them with sand to keep them warm and settles down to watch over them for the next three months.

Unguarded eggs might be eaten by mongooses, snakes or lizards, or could rot if exposed to wet weather. At the first sign of rain, the mother positions her body over the eggs to protect them from the downpour.



AFRICA

IN AFRICA, a black rhinoceros has just given birth. Her calf can be on its feet when it is just hours old, but calves will stay with their mothers for up to three years. At all other times, rhinos are solitary animals, displaying aggression if they meet.

Nearby, the sound of heavy rain prompts swarms of termites to leave their nests. These winged termites are called alates and their job is to start a new colony. The alates pair up in the air, after which they settle on the ground to shed their wings and mate.

The pair start to build a new home, a cone-shaped mound made of soil held together by saliva. This is easier in the rainy season as the damp soil is easy to shape.



Mothers and calves form tight bonds. The mother will defend her calf fiercely should danger approach.



AUSTRALIA

HANGING UPSIDE DOWN in a high treetop, a flying fox gives birth to its young. The infant instinctively crawls down its mother's body to find a teat. It will not learn to fly for another four months, so it clings to its mother wherever she goes, hanging on with its sharp claws and teeth.

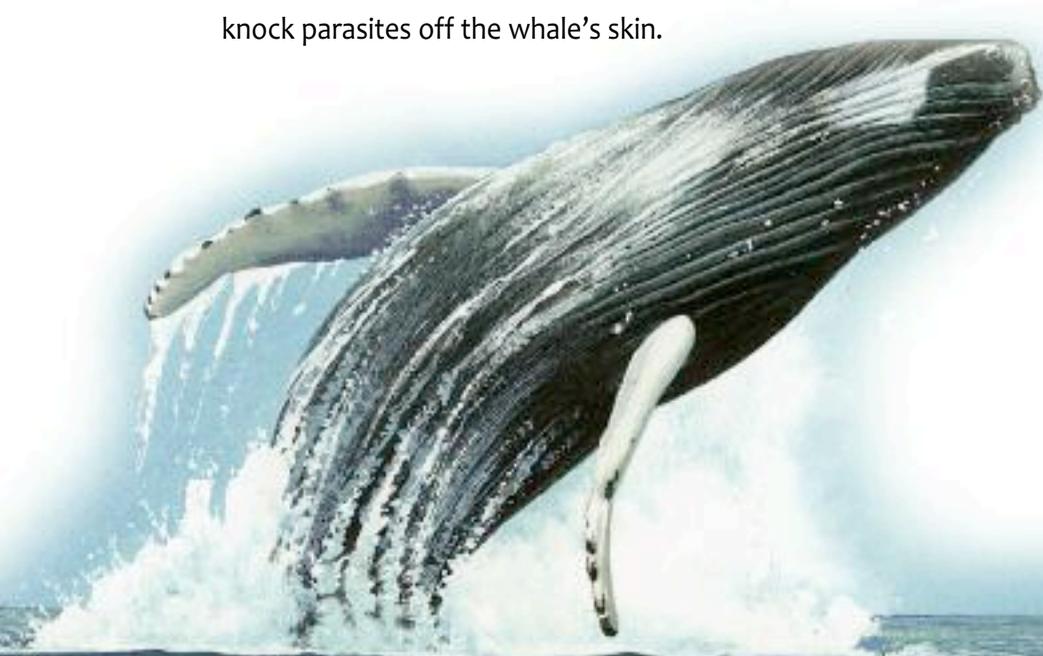
Meanwhile, a spitting spider lies in wait for its victims. Warm spring evenings draw moths and other insects out to mate. Distracted by their search for a mate, the insects make easy prey. Suddenly the spider squirts a spray of poisoned silk at one. Its aim is deadly accurate and the insect soon gets tangled in the sticky threads. The spider then paralyzes it with its bite.



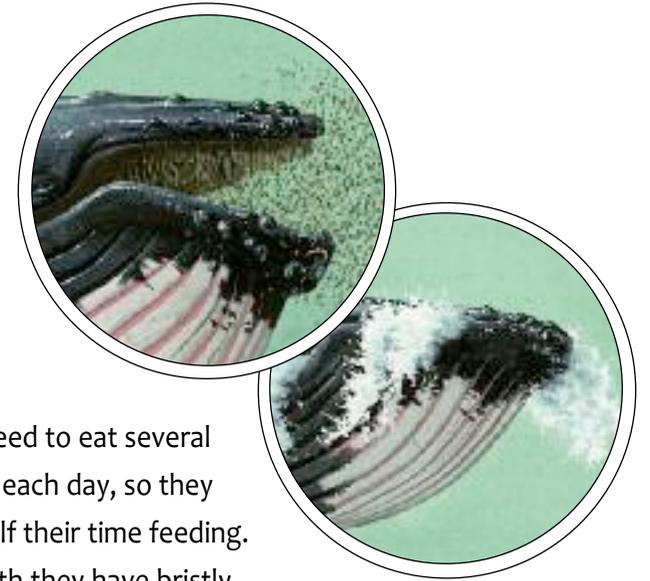
ANTARCTICA

IN THE SOUTHERN SUMMER, humpback whales migrate to their feeding grounds in the waters around Antarctica. Here, there is fish and krill to eat at this time of year.

Leaping into the air, called breaching, makes a huge splash when the whale hits the water. This lets other whales know it is around. It also helps to knock parasites off the whale's skin.



Whales gulp in water and krill then force the water out, trapping the krill.



Humpbacks need to eat several tonnes of krill each day, so they spend over half their time feeding. Instead of teeth they have bristly plates, called baleen, that hang from the roofs of their mouths.

They gulp in mouthfuls of water and krill, then force it out again through the baleen. The krill gets caught behind the baleen and the whales scrape it off with their tongues. Folds on the underside of the whale's body enable it to inflate its body during feeding.



ANTARCTICA

BY NOVEMBER, Adélie penguins have reached their breeding grounds, rookeries containing up to half a million birds. Large crowds make it easier to find a mate and provide some safety in numbers from great skuas and petrels. Males arrive first, and set about building a nest by piling up pebbles. A good nest will help to attract a mate.

Once the females arrive, the penguins couple and the female lays one or two eggs. Parents take turns to incubate the eggs while their partner feeds. After 35 days, the eggs hatch. Three or four weeks later the chicks are big enough to be left in a “crèche” with other chicks while their parents find food for them.

Meanwhile, great skuas are also nesting. When the eggs hatch, parents struggle to find enough food for both chicks. The skua will attack other sea birds, such as storm petrels, to steal their prey—just like a pirate. Its huge size is enough to scare most birds into dropping their catch.

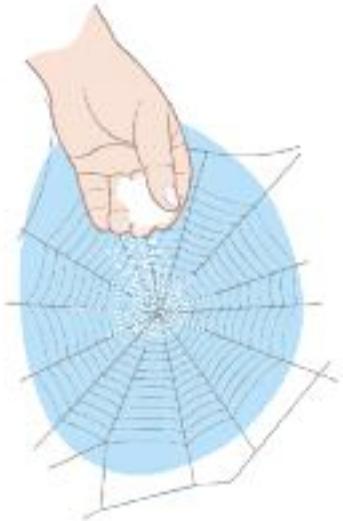


THINGS TO DO:

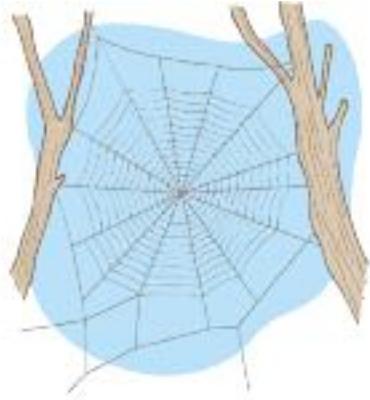
SPIDER WEB ART

On cool mornings, spider webs may be lined with drops of dew or even tiny ice crystals. Try this activity to make your own “frosted” spider web.

1 Find an empty spider web—choose one without a spider living on it!



2 Lightly sprinkle a little flour on to the web. For the best results, pour some flour into the palm of your hand and gently blow it at the web. This will give the web a light, even covering of flour.

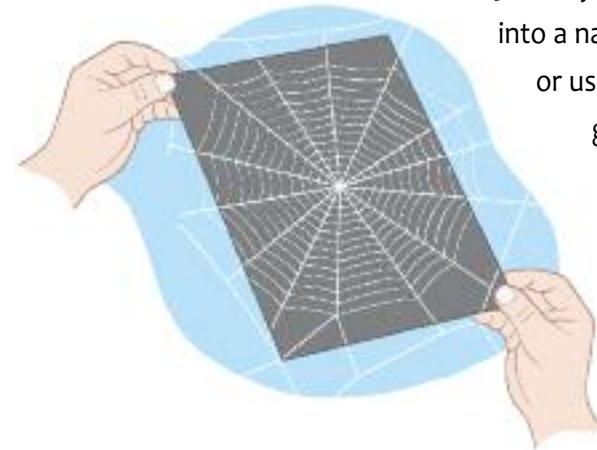


3 Ask an adult to spray a piece of black card or paper with craft glue or hairspray.

4 Hold the card behind the web and bring it slowly forwards so that the web sticks to the sticky surface of the card.



5 Stick your spider web into a nature notebook or use it to make a greetings card.



THINGS TO DO: ARE YOU AS SMART AS A SQUIRREL?

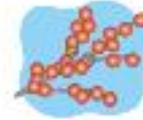
In autumn, squirrels are busy burying nuts for the winter. But will they remember where the nuts are buried several weeks later?

Next time you go for a walk, collect a handful of acorns or other nuts. Hide them under leaves or push them gently into the ground.

Go away for 10-15 minutes, then return to the area. Can you find where all the nuts were hidden?



NATURE WATCH



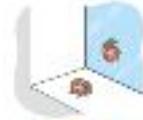
Clusters of berries 10



Large flocks of starlings 20



Old man's beard 30



Ladybirds coming indoors 40



Birds roosting in treetops 50

See how many of these things that typically happen in November you can spot. Award yourself the points on the right!