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In 24 hours on Earth, discover the different worlds that wake up

DAY and NIGHT



With
**GLOW-IN
THE-DARK**
pages

*The velvety night feels like it will linger forever.
But all at once there's a shift.*

You might think a mule deer's enormous ears would help it hear **PREDATORS**. But it's their amazing eyesight in low light and keen sense of smell that help them to sense a big cat **STALKING** nearby.

*The deep dark pales, giving way to the day's first light.
The quiet flutters as birds call to one another.*

*Here in Western North America,
mule deer nibble at leaves while a mountain lion watches.*

Mule deer are **HERBIVORES**. They eat plants, such as dandelion, clover and sagebrush.

Deer can see shades of blue best, which is ideal in the inky twilight.

Mountain lions are **CARNIVORES**. They eat meat.

Often hidden in the dim light, mountain lions hunt bighorn sheep, porcupines, turkeys and even insects. One mule deer, though, can feed a mountain lion for a week.

*So it happens that
the world of shadows
tiptoes towards day.*



The sun rises like a hush. It reaches out its rays, brushing away the last patches of night, as it inches over the horizon.

In Western Australia, spiderwebs glitter with last night's dew.

Why does the sun look red at sunrise? When the sun is low in the sky, its light travels through a thicker layer of **ATMOSPHERE** to reach us. On this long journey, some of the light is scattered away but the reds and yellows make it to us.

But orb weaver spiders busily take them down. They must find a place to hide as hungry honey eaters dart from their nests.

After spinning webs in the evening to catch insect **PREY**, orb weaver spiders take them down in the morning by eating the silk.

Morning dew caught in the webs quenches the spiders' thirst.

The New Holland honey eater not only eats spiders, but also uses spider silk to hold its grass-and-leaf nests together.

Another of the honey eater's favourite foods is flower nectar, which it harvests in the early morning, before bees come out to forage for nectar, too.





Darkness creeps in until all memory of day is erased.

*In South Asia, snow-white moonflowers open wide.
Moths flicker through the cool air,
lured by the sweet smell of nectar and the glow of petals.*

Moonflowers, also called evening glories, open as soon as night falls. They release a smell that attracts night **POLLINATORS**, such as moths. The white petals of the moonflower glow in moonlight to give these insects extra help in finding them.

The hawk moth has a long, tube-like tongue, called a **PROBOSCIS**. It is long enough to reach the nectar deep inside a moonflower. A hawk moth can hover in the air while it feeds. Some moths come out in the day or the evening. But nocturnal moths have evolved to navigate using the moon and stars.





A Guide to Day and Night

Polar night and midnight sun

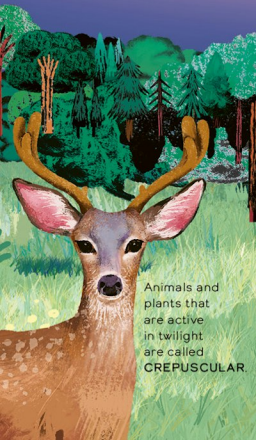
At the very north and south of Earth, days work differently. For six months of the year the sun never rises above the horizon. This is called the **POLAR NIGHT**, and it is dark all the time. For the other six months of the year, the sun never falls below the horizon. This is called the **MIDNIGHT SUN**, and it is light all the time.

This phenomenon happens because Earth is tilted. When one pole is tilted towards the sun, the other pole is tilted away. This makes daytime or nighttime last more than 24 hours in these places.



Dawn

Before the sun has risen above the horizon, the sky lightens. This time of day is also known as twilight.



Animals and plants that are active in twilight are called **CREPUSCULAR**.



Sunrise

The sun rises higher, eventually coming up over the horizon line, warming the air.



Daytime

The period between sunrise and sunset, when the sun peeks up over the horizon line then travels in an arc across the sky. It is warmer than it is at night and there is more food around, but animals are more easily spotted by predators in the light.



Animals and plants that are active in daytime are called **DIURNAL**.



Sunset

The sun sinks below the horizon line, causing light and warmth to fade.



DIURNAL animals and plants prepare to rest for the night.

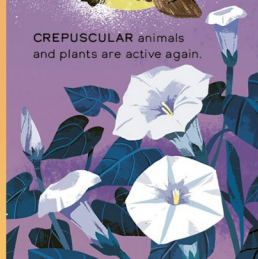


Dusk

The sun lowers even more, even though we can't see it now. The sky grows darker but there is still a faint glow of light. This time of day is also known as twilight.

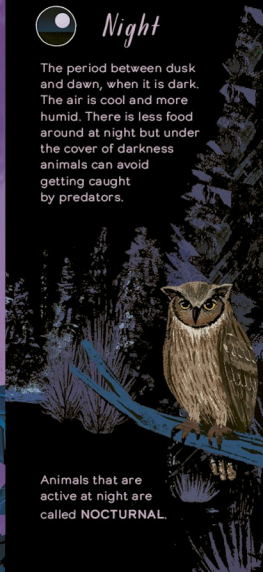


CREPUSCULAR animals and plants are active again.



Night

The period between dusk and dawn, when it is dark. The air is cool and more humid. There is less food around at night but under the cover of darkness animals can avoid getting caught by predators.



Animals that are active at night are called **NOCTURNAL**.