**Winter scavenger hunt** Aged 5 – 11: answers

**Evergreen trees**

**What does a tree need to grow?**

Trees need energy from sunlight, nutrients from the soil, carbon dioxide from air and water to grow healthily.

Work out the age of a tree: [Measure a tree](https://education.theiet.org/primary/teaching-resources/put-a-ring-on-it/)

**What is the job of each part of the tree?**

Roots: to absorb water and nutrients from the soil.

Bark on the outside of the trunk: protects the softer inner trunk from damage by animals or the weather and makes the tree strong and sturdy against wind.

Branches: to grow leaves.

Leaves: to absorb sunlight that the tree converts into energy.

Fruit: contain seeds from which new trees can be grown.

Find out more: [Leaf and tree parts activity with videos](https://education.theiet.org/primary/teaching-resources/leaf-is-a-wonderful-thing/)

**Squirrels**

**What do squirrels eat?**

Squirrels are not picky eaters and eat lots of different things found in nature: nuts, seeds, fruit, grains, vegetables, roots and bulbs.

Find out about wildlife in our gardens: [BBC Videos](https://www.bbc.co.uk/teach/class-clips-video/biology-ks1-ks2-wonders-of-nature-wildlife-in-our-gardens/zkx2t39)

**Why do squirrels have sharp claws?**

Squirrels have sharp claws on both their hands and feet. They use their claws for climbing trees and digging holes to bury their spare food before they use their claws to break into food like nuts.

**Animal footprints**

**How can you tell which footprints are from wild animals and which are from pets?**

Look at the shape of an animal’s feet to give you a clue who has left the prints. Perhaps it has sharp claws, or webbed feet, maybe even cloven hooves. Online you can find websites that show lots of different prints so you can identify which animal made the ones you found.

Find out more: [Wildlife Trusts](https://www.wildlifetrusts.org/how-identify/identify-tracks)  or [Discover Wildlife’s](https://www.discoverwildlife.com/how-to/identify-wildlife/how-to-identify-animal-tracks-and-trails/) ‘how to identify tracks’

**Long shadows**

**Why are shadows so long at this time of the year?**

In the spring and summer months, the north pole tilts towards the sun. This means the light from the sun is closer to the northern hemisphere (top half of the Earth), giving us shorter shadows. In the winter, the opposite is true and the south pole tilts towards the sun, so the sun light is farther away from the north, giving us longer shadows. In countries like Australia in the Southern hemisphere (bottom half of the Earth) it’s the other way around and they have longer shadows in the summer and shorter in the winter.

Learn more and tell the time with the sun: [Science Museum](https://www.sciencemuseum.org.uk/objects-and-stories/telling-time-sun)

**Starling**

**Why do some birds migrate to Britain in the winter?**

Birds come to Britain in the winter from the north for the milder temperatures and abundance of food. Some of the birds you see in the summer also fly south for the winter and return home in the spring when it gets warmer, and food becomes more plentiful.

Find out more about bird migration: [RSPB](https://www.rspb.org.uk/birds-and-wildlife/natures-home-magazine/birds-and-wildlife-articles/migration/)

**Pinecone**

**Pinecones are seed carriers for trees. Can you think of any other ways seeds can be carried/dispersed?**

Bees, insects and animals carry them from plant to plant on their bodies while they look for food. Light seeds are carried on the wind. Sometimes, people pick them and plant them in different places.

Find out more: [BBC Bitesize](https://www.bbc.co.uk/bitesize/clips/znvfb9q)

**Bird of prey**

**What do you think birds eat?**

Small mammals (mice, voles etc.), smaller birds, grains, fruit and worms.

Find out more: [RSPB Kids](https://www.rspb.org.uk/fun-and-learning/for-kids/)

**What adaptions does this bird have for the type of prey it eats?**

Exceptional eyesight, powerful beak, long sharp talons, speed and agility in flight, sensitive hearing.

Adaptation: [BBC resource](https://www.bbc.co.uk/teach/class-clips-video/science-ks2--ks3-how-animals-have-adapted/z4y76v4)

**Snow**

**How long do you think the snow will stay for? When and why will it melt?**

It depends on the air and ground temperature. The colder the air and ground is, the longer the snow will stay. However, if the temperature gets slightly warmer and the snow melts and turns to water, when it gets cold again, it will freeze and make ice.

Snow, ice and water: [BBC Bitesize](https://www.bbc.co.uk/bitesize/clips/zpvfb9q)

**Frozen puddle**

**Why does water freeze?**

Water is made up of molecules, which are tiny and move around quickly. When they get cold, they move much more slowly and eventually stick to each other making them a solid. That is ice.