


A top-down view of a forest floor densely packed with pinecones of various sizes and colors, ranging from dark brown to light tan. Interspersed among the pinecones are pieces of weathered, greyish-brown driftwood and some small green plants. The overall scene is a rich, textured display of natural debris.

# Pinecones

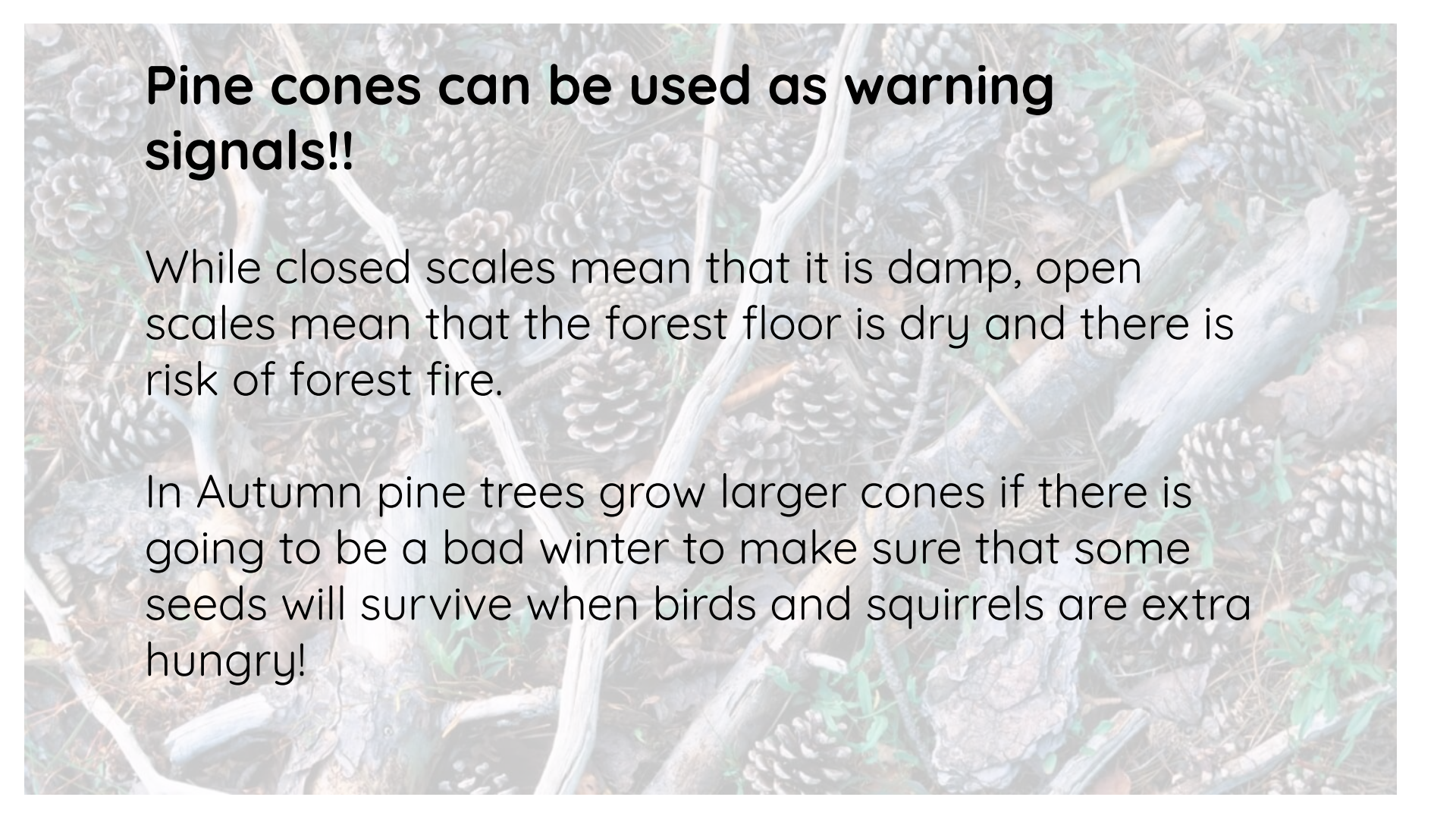
# What are Pine Cones?

They are the 'fruits' of pine trees and are made up out of individual scales. Female pine cones hold seeds and when they are ready the scales open and the seeds come out. The male pine cones are smaller and lighter and don't produce seeds.

Pine cones fall from trees during Autumn and can be found near to conifer trees and in woodland.

A top-down view of a forest floor. The ground is covered with a dense layer of pine cones of various sizes and colors, from light tan to dark brown. Interspersed among the cones are several pieces of bleached, white driftwood. The wood has a weathered, textured appearance. Small green plants and moss are scattered throughout the scene, adding a touch of life to the otherwise still landscape. The overall lighting is soft and natural, suggesting a shaded forest environment.

Did you  
know?

A photograph of a forest floor covered in numerous pine cones of various sizes and several weathered, light-colored branches. The scene is slightly overcast, with a soft, diffused light. The pine cones are scattered across the ground, some lying on their sides and others upright. The branches are intertwined, creating a complex pattern of lines and textures. The overall color palette is muted, with shades of brown, grey, and green.

## **Pine cones can be used as warning signals!!**

While closed scales mean that it is damp, open scales mean that the forest floor is dry and there is risk of forest fire.

In Autumn pine trees grow larger cones if there is going to be a bad winter to make sure that some seeds will survive when birds and squirrels are extra hungry!



## **Some dinosaurs loved munching on pine cones!**

Nowadays pine cones are enjoyed by squirrels, woodpeckers and other birds.

Sixty million years ago Hadrosaurids (duck billed dinosaurs) loved to gobble them up!

They had specially shaped jaws and thousands of rows of teeth to help them chew them up.



# Activities



## Give your birds a treat!

Mix softened lard, with bird seeds and press into the cone using your fingers.

Leave the cones outside to set

Fix some string to the cones and hang somewhere safe and out of the way of cats!

Wait for the hungry birds!

# Pine cone experiment

## Materials and tools

- 3 jars
- 3 pine cones (the same size)
- Warm water
- Cold water
- Ruler
- Timer (this might be on a tablet or phone?)

## Instructions

1. Measure the size of each pine cone and make a note
2. Put each pine cone in a jar
3. Label each jar and fill one with warm water, one with cold and leave one with just air
4. Think about what might happen (prediction)
5. Watch for any differences and record them ( you could write about or draw your observations)



# Pine cone experiment

Scientific diagram (a labelled drawing showing your experiment)

Prediction (what I think will happen):

# Pine cone experiment results

Results


Conclusion (what happened and why)