



# Pine Class Science Knowledge Organiser - Autumn Term

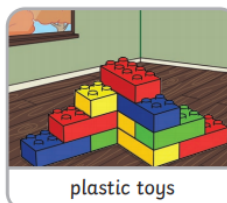
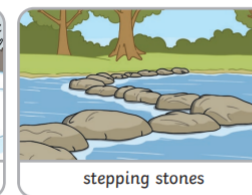
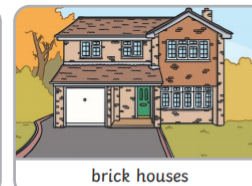
## Seasonal Changes

Key Vocabulary	
<b>seasons</b>	There are four <b>seasons</b> each year, <b>autumn</b> , <b>winter</b> , spring and summer.
<b>autumn</b>	In <b>autumn</b> , the <b>weather</b> begins to get colder. The leaves start to fall from the trees. The amount of <b>daylight</b> becomes less. This means the daytimes are shorter and the night times are longer.
<b>winter</b>	In <b>winter</b> , the <b>weather</b> is much colder. Sometimes it is cold enough to freeze, leaving frost and ice on the ground. It sometimes snows. Many trees have bare branches as all their leaves have fallen off. The daytimes are the shortest in the year and the night times are the longest.
<b>weather</b>	The <b>weather</b> includes the temperature outside, the wind direction and strength, as well as rain, cloud, snow and sun.
<b>daylight</b>	<b>Daylight</b> is when it is light outside. The amount of <b>daylight</b> changes with each <b>season</b> .

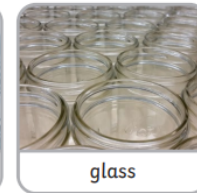
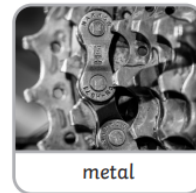
autumn	winter
	
The Four Seasons	
<b>autumn</b> September October November	<b>winter</b> December January February
<b>spring</b> March April May	<b>summer</b> June July August

## Everyday Materials

Key Vocabulary	
<b>object</b>	A thing that can be used. For example a door, chair, car, table are all <b>objects</b> .
<b>material</b>	<b>Materials</b> are what an <b>object</b> is made from.
<b>hard</b>	Not easily broken or bent.
<b>soft</b>	If something is <b>soft</b> , it is easy to cut, fold or change the shape of.
<b>stretchy</b>	Can be pulled to make it longer or wider without breaking.
<b>shiny</b>	Reflects light easily.
<b>dull</b>	Doesn't reflect light. Doesn't look bright or <b>shiny</b> .
<b>rough</b>	If something is <b>rough</b> , it feels and looks uneven or bumpy.





















## Materials:



Key Vocabulary	
<b>smooth</b>	<b>Smooth objects</b> have no lumps or bumps.
<b>bendy</b>	<b>Bendy</b> things can be folded easily.
<b>not bendy</b>	If something is <b>not bendy</b> , it can't be folded easily.
<b>waterproof</b>	If something is <b>waterproof</b> , it keeps water out. It keeps things dry.
<b>not waterproof</b>	<b>Not waterproof materials</b> let water in.
<b>absorbent</b>	If something is <b>absorbent</b> , it soaks water up.
<b>not absorbent</b>	If something is <b>not absorbent</b> , it does not soak up water.
<b>transparent</b>	<b>Transparent objects</b> can be seen through.
<b>opaque</b>	<b>Opaque objects</b> can't be seen through.


# Animals and their homes

Key Vocabulary	
<b>amphibians</b>	Amphibians live in the water as babies and on land as they grow older. They have smooth, slimy skin.
<b>birds</b>	All birds have a beak, two legs, feathers and wings.
<b>fish</b>	Fish live and breathe under water. They have scaly skin, fins to help them swim and they breathe through gills.
<b>mammals</b>	Mammals are animals that breathe air, grow hair or fur and feed on their mother's milk as a baby.
<b>reptiles</b>	All reptiles breathe air. They have scales on their skin.
<b>carnivore</b>	Animals that mostly eat other animals (meat) are carnivores.
<b>herbivore</b>	Animals that only eat plants are herbivores.
<b>omnivore</b>	Animals that eat both plants and other animals are omnivores.




Mammals			
			
human	mouse	dog	cow
Birds			
			
penguin	chicken	flamingo	robin
Fish			
			
goldfish	tuna	shark	eel
Reptiles			
			
snake	tortoise	lizard	alligator
Amphibians			
			
frog	toad	newt	salamander

Key Vocabulary	
<b>habitat</b>	A <b>habitat</b> is the natural place something lives. A <b>habitat</b> provides <b>living</b> things with everything they need to <b>survive</b> such as food, shelter and water.
<b>microhabitat</b>	A <b>microhabitat</b> is a very small <b>habitat</b> in places like under a rock, under leaves or on a branch. Minibeasts live in <b>microhabitats</b> . The <b>microhabitats</b> have everything they need to <b>survive</b> .
<b>depend</b>	Many <b>living</b> things in a <b>habitat</b> <b>depend</b> on each other. This means they need each other for different things.
<b>survive</b>	This means to stay alive.

Examples of habitats:

		
woodland	urban	coastal
		
rainforest	arctic	desert
		
ocean	river	mountain

Examples of microhabitats:

				
short grass	flowers	inside rotting wood	under leaves	in and on soil

## Key discussion points

Which animal group do humans belong to?

What do animals need to survive?

Why is glass a good material for windows?

Can you describe the materials your home is made of?

Why would a tree be a good home for a squirrel?