

Tree Guardian

Take inspiration from the nature guardians of folklore to create your own tree guardian from natural materials. As it rains your tree guardian will slowly disappear.

Resources Needed:

- A tree
- Mud
- Twigs, Leaves, Flowers, Stones

The Build:

- Find a tree in a local green space.
- Create a mud pat and place it somewhere on the tree where it will stick, this might be in a nook or a gap in the bark to help it stick.
- Shape the mud to create a face, be as imaginative as you like! Make use of your collected twigs, leaves and flowers to decorate the face you've created.
- Keep visiting your tree to see if it is still there.



PECT
CREATING SUSTAINABLE PLACES



**CLIMATE
EDUCATION**

Catch a Web

Learn more about the intricacy of spider web by catching one on a sheet of paper.

Resources Needed:

- Talcum Powder
- Hair Spray
- Black Card or Paper

The Build:

- First you will need to find an empty web, you are looking for a web with broken sections and without a spider in.
- Take a small amount of talcum powder in your hand and blow it carefully onto the web.
- Use the hair spray on your card (or paper) to make one side sticky.
- Slowly move the card under the web until it touches.
- Carefully remove to see what you have caught.



PECT
CREATING SUSTAINABLE PLACES



**CLIMATE
EDUCATION**

Weave a Web

Learn more about the intricacy of spider web by having a go at making your own web by carefully weaving a pattern, just like a spider!

Resources Needed:

- Paper Plate
- Hole Punch
- Scissors
- Wool or Twine

The Build:

- Carefully cut out the centre of the paper plate.
- Using the hole punch, put holes around the inside edge.
- Thread the wool through one on the holes - it doesn't matter which - and secure (either tie or tape to the back of the plate).
- Using the other holes weave the wool to create a spider's web.



PECT
CREATING SUSTAINABLE PLACES



**CLIMATE
EDUCATION**

Mud Animal Sculptures

Using images of local wildlife as inspiration this messy activity will make use of observational and fine motor skills. When left outside the sculptures will 'melt' away in the rain, swapping the mud of air drying clay will ensure these sculptures last forever.



Resources Needed:

- Bucket of mud (ideally not too soft)
- Twigs, Leaves, Flowers, Grass

The Build:

- Take a handful of mud and shape it to create a round shape (ball/egg shape).
- Using your fingers pinch and move the clay so that it matches the features of your chosen animal - you can add for clay if needed to make larger features
- With your thumb push the clay to create indents for the eyes.
- Decorate with twigs, leaves, and other natural materials to add details to your animal.

Mud Target Practice

Enjoy getting hands on, and muddy, by creating a target to hit with mud balls!

Challenge your friends and family to take part.

Resources Needed:

- Bucket of mud (ideally not too soft)
- Spoons
- Large piece of cardboard
- A pen

The Build:

- Draw a target on the large piece of cardboard (colour this in or add scoring if you want).
- Grab a bucket of mud - it should be sticky and hold together, water might need to be added but not too much!
- Stand the target against a wall or tie it to a tree.
- Grab a spoon, load it with mud, and fling it at the target.



Snail Racing

Snails are a member of the gastropod family, with species finding home on land and in water.

They can be found in most green spaces - have a go at collecting snails for a slow speed race.

Resources Needed:

- Snails
- Leaves
- Large piece of cardboard
- A pen

The Build:

- Draw a target on the large piece of cardboard (colour this in if you want)
- Place a pile of leaves in the centre.
- Start the snails from the outer edge of the target.
- The snail who gets to the leaves in the centre first is the winner.
- Return the snails to a safe location.



Corn Dollies

A small doll made from natural materials. These were traditionally made during harvest celebrations.

Resources Needed:

- 6 Corn Husks (the green part from sweetcorn) soaked in warm water for a few minutes to soften
- Thin string or thread
- Scissors

The Build:

- Tie 4 corn husks together, securing everything close to one of the ends (1).
- Carefully fold the husks down, similar to the way you would peel a banana (2).
- Tie close to the top to create the dolls head (3).
- Roll one of the remaining husks into a tube and tie at each end (4).
- Part the corn husks just under the head of the doll and thread the tube through to create arms (5).
- Split the final corn husk in half length ways and place it half over each shoulder (crossing them at the front) to create a jacket, trim if it is too long. Tie to secure and create a waist (6).
- You should now have a corn dolly with a skirt, if you want the doll to be wearing trousers then cut the skirt in half, separate and tie at the bottom (6).



Straw Dollies

A small doll made from natural materials. These were traditionally made during harvest celebrations.

Resources Needed:

- Straw
- Thin string and thread
- Warm Water

The Build:

- Tie 4 straws together, securing everything close to one of the ends.
- Carefully fold the stems down, similar to the way you would peel a banana.
- Tie close to the top to create the dolls head.
- Twist (or plait) a couple of stem together tie at each end.
- Part the lengths of straw just under the head of the doll and thread the tube through to create arms.
- Take the final straw, split it in half length ways and place it half over each shoulder (crossing them at the front) to create a jacket, trim if it is too long. Tie to secure and create a waist.
- You should now have a straw dolly with a skirt, if you want the doll to be wearing trousers then separate and tie at the bottom.



Rain Orchestra

Explore sounds made by rain as it hits different objects and learn about how the size, material, and shape of each item changes the sound.

Resources Needed:

- A safe outdoor space
- A rainy day
- Pots, pans, metal bowls, tin cans, metal trays, and other similar items.



The Build:

- Find a location to set-up your percussion section, it will need to open to the rain!
- Place the items upside down, so that the rain won't collect inside them, and cluster everything close together - you might want to experiment with raising items off the ground.
- Wait for the rain to start and listen carefully to the sounds they make.

Rain Waterfall

Explore the way that water flows by making a simple waterfall from recycled materials.

Resources Needed:

- Rainy day
- Fence/Wooden post
- Plastic Bottles
- Scissors
- Nails & Hammer or
Screws & Screwdriver



The Build:

- Find a fence, wooden post, or wall to attach your waterfall to (make sure you have permission before you start).
- Cut out sections from each of your bottles so the water can move from one to the other.
- Position the bottles at angles along your chosen surface, you want them to be aligned vertically so the water can freely run from top to the bottom.
- Secure in place using nails or screws (adult help or supervision will be needed)
- Test the waterfall by pouring water into the bottle at the very top.

Dandelion Luminary

Use dandelion seed heads and a simple light source to throw patterned shadows on a nearby wall.

Resources Needed:

- Glass Jar (cleaned and with labels removed)
- Fluffy dandelion seed heads
- Torch/Battery Tea Light/Fair Lights



The Build:

- Ensure the jar is big enough to fit your chosen lights, before washing and removing all labels.
- Collect as many dandelion seed heads as you can, placing them half of them into the jar as you go along.
- Turn your chosen light on and drop it into the jar.
- Fill the jar with the remaining seed heads.
- Turn off all the lights and enjoy the shadows cast by the jar.

Leaf Lantern

Use leaves and a simple light source to throw patterned shadows on a nearby wall.

Resources Needed:

- Glass Jar (cleaned and with labels removed)
- Leaves (dry)
- Glue (pritt stick is fine)
- Torch/Battery Tea Light/Fair Lights



The Build:

- Ensure the jar is big enough to fit your chosen lights, before washing and removing all labels.
- Collect the leaves you would like to use on your lantern - look for interesting shapes and different colours.
- Make sure the leaves are clean and dry, placing them between two tea-towels to aid the drying process.
- Apply glue to the leaves and stick these to the outside of the glass jar, have fun with making different patterns. (To help the leaves stick, glue the smooth side of the leaf and hold it against the glass to smooth the leaf out)
- Leave the jar to dry entirely.
- Turn on the tealight before putting it into the jar, turn off all the lights and enjoy the colours produced.

Orange Peel Lantern

By carefully removing the fruit from a citrus peel (large oranges or grapefruits work well) you can create a simple, decorative, lantern.

Resources Needed:

- Orange
- Spoon
- Scissors, Cookie cutter
- Knife (adult help will be needed)
- Candle/Battery Tea Light

The Build:

- Cut the orange in half, eat the inside with a spoon to keep the peel in tact.
- Using the cookie cutter or scissors create a hole in the top for the light to shine through.
- Add smaller holes to allow more light through if you wish.
- Place the light source into the bottom of the orange, light/switch on before putting on the lid.



Tin Can Lantern

Repurpose tin cans into wonderful decorative lanterns.

Resources Needed:

- Tin Can (cleaned and with labels removed)
- Hammer & Nail (adult help might be required)
- Paper, Pencil & Tape
- Sand & Water
- Candle/Battery Tea Light



The Build:

- Ensure the can is clean, with all the labels and any glue removed.
- To ensure the can keeps its shape when creating the design fill 3 quarters with sand then top up with water.
- Place in the freezer and remove when frozen.
- Draw your design on paper and tape in place on the outside of the frozen can.
- Use the hammer and nail to punch holes into the can using your design as a template.
- Once complete remove the template from the can, empty out the contents, and give it a final wash.
- Add a candle or battery tea light and enjoy your design.

Life Cycle of a Frog

Frogs are fascinating creatures with interesting lifecycles, which can easily be demonstrated in a simple diagram.

Resources Needed:

- 2 stones (1 small & 1 medium)
- Paper
- Glue
- Pens
- Paper Plate or a Circle of Cardboard
- Small piece of Bubble Wrap

The Build:

- Decorate the stones so that the medium one looks like a frog and the smaller one a tadpole - either cut the legs/tail from paper or draw them directly onto the plate and still your stone in the right place.
- Mark some black dots on the flat side of the bubble wrap, so that when you turn it over it looks like frogspawn.
- Ensure the frog, frogspawn, and tadpole are arranged in a circle around the plate - demonstrating the frog lifecycle.



Magic Tadpoles

Create some magic and make your hand drawn tadpoles come to life before your eyes.

Resources Needed:

- Ceramic Bowl or Plate
- Water
- Whiteboard Pen

The Build:

- Use the whiteboard marker to draw tadpoles onto the middle of your plate/bowl.
- Cover with water and watch them lift from the bowl and swim around (like magic).



PECT
CREATING SUSTAINABLE PLACES



**CLIMATE
EDUCATION**

Origami Frogs

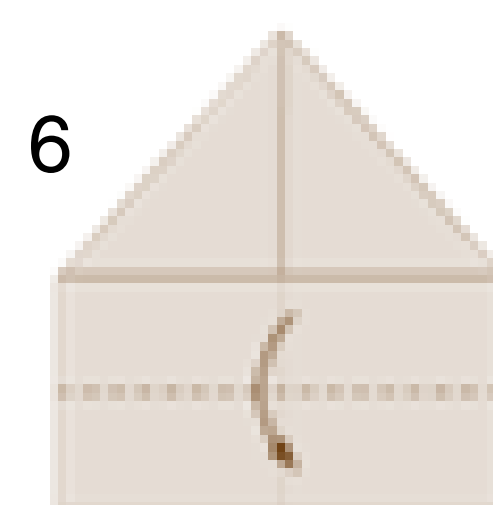
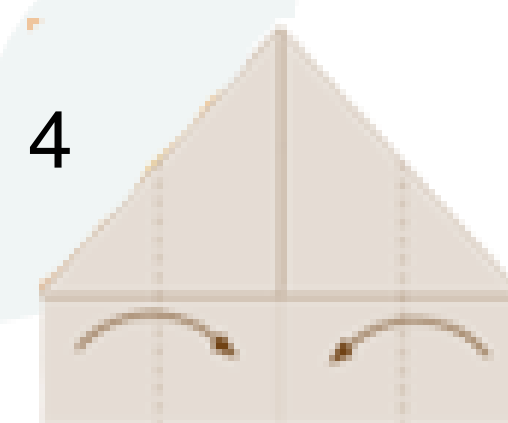
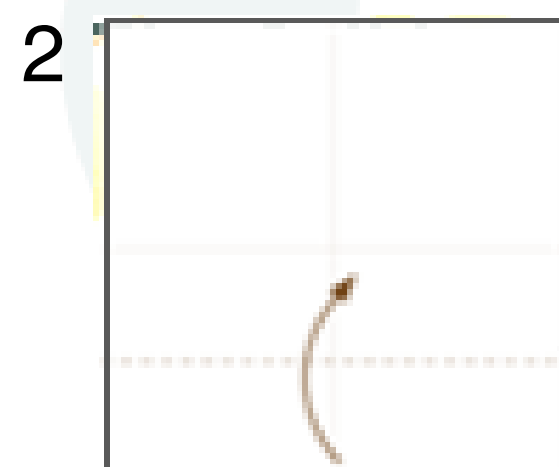
Take inspiration from nature and create a jumping frog from a sheet of paper!

Resources Needed:

- 1 sheet of square paper (12cm is a good size)

The Build:

1. Fold the square in half and half again - opening back out again.
 2. Fold the bottom edge up to the middle fold line.
 3. Fold the top corners in to meet at the middle line.
 4. Fold the outer edges into the middle.
 5. Fold the bottom up along the fold line.
 6. Fold the middle edge down to the bottom.
- Turn your frog over and adding some eyes! Press the folded edge with the tip of your finger to make the frog flip.



Pumpkin Decorating

The large surface of pumpkins, a vegetable which is in season throughout the autumn provides an ideal canvas for creativity.

Resources Needed:

- A Pumpkin
- Paint
- Paper/Card/Felt
- Knife & Spoon
- Glue
- Natural Materials

The Build:

Traditional Carving

- Cut off the top, remove all the inners and carve out a design into the front.

Paint

- Paint a design onto the skin of the pumpkin and avoid needing to do any cutting.

Cut & Stick

- Cut and stick shapes to the outside of the pumpkin to create a face or creature.

Natural Materials

- Make use of natural materials (pinecones, twigs, leaves) to create patterns on the outside of the pumpkin.



PECT
CREATING SUSTAINABLE PLACES



CLIMATE
EDUCATION

Setting up a Compost Bin

Creating compost is easy and turns waste materials into fertile soil for any school gardening project.

Resources Needed:

- Old waste bin/large plastic tub
- Specific compost bin

The Build:

Make a compost bin

- Make holes in the bottom of your chosen container - which will allow oxygen to flow through the compost.

Setting up the compost bin

- Place your bin on bare soil, to encourage mini beasts, in a sunny location, as warmth will aid the compost process.
- Layer your bin with green and brown materials, ensuring that large items are ripped into small pieces, adding in soil and manure.
- Water the compost - it is important to keep it moist but not soaking wet.
- Cover and let sit for a couple of weeks. Then start to mix and turn the compost over once a week.
- Regularly add more materials, if it becomes dry and add more green and if it is slimy/smelly add more brown material.



Rain Puddle Gauge

Use a naturally created puddle to learn about evaporation.

Repeat this activity in different seasons to see if temperature makes a difference to the rate of evaporation.

Resources Needed:

- A puddle
- Chalk

The Build:

- Find a puddle, after it has stopped raining.
- Draw around the outside of the puddle with chalk.
- Keep checking at regular intervals to see how much your puddle is shrinking.
- Each time you check draw a new line to show how much it has reduced, until it has all gone.



PECT
CREATING SUSTAINABLE PLACES



**CLIMATE
EDUCATION**

Rainwater Gauge

Measure the amount of rainfall by making a simple rainwater gauge from recycled materials.

Resources Needed:

- 2 L Plastic Bottle
- Stones/Gravel
- Black & Red Permanent Marker
- Strong Tape & Ruler & Scissors

The Build:

- Wash your bottle, removing the lid and any labels.
- Cut off the top of the bottle at approximately where the curve of the bottle stops (save the top part for later).
- Place the stones/gravel in the bottom of the bottle to weight it down and prevent collected rain spilling.
- Cover your stones with water, then mark the water level with a red line.
- Turn the top half of the bottle upside down and place this inside the bottom half. Secure this in place around the top with tape.
- Add measurements on the outside of the bottle, starting at the red line then moving up in 1cm increments.
- Leave your rain gauge outside and measure the amount of rainfall on the next rainy day.



Leaf Parachute

Experiment with gravity and the strength of leaves by making a leaf parachute.

Use different passengers, leaves, or launch locations and see how far you can get your parachute passenger to travel.

Resources Needed:

- Large strong leaves
- Parachute passengers (stone/pebble/tree seed/twig/small toy)
- String

The Build:

- Tie pieces of string to each end of the leaf.
- Wrap the unattached ends of the string to your parachute passenger, so that it hangs in the middle.
- Find somewhere to launch your parachute - this could be a window, climbing frame, or slide.
- Make a note of how far your parachute flies and compare this with different passengers.



PECT
CREATING SUSTAINABLE PLACES



**CLIMATE
EDUCATION**

Paper Kite

Go fly a kite!

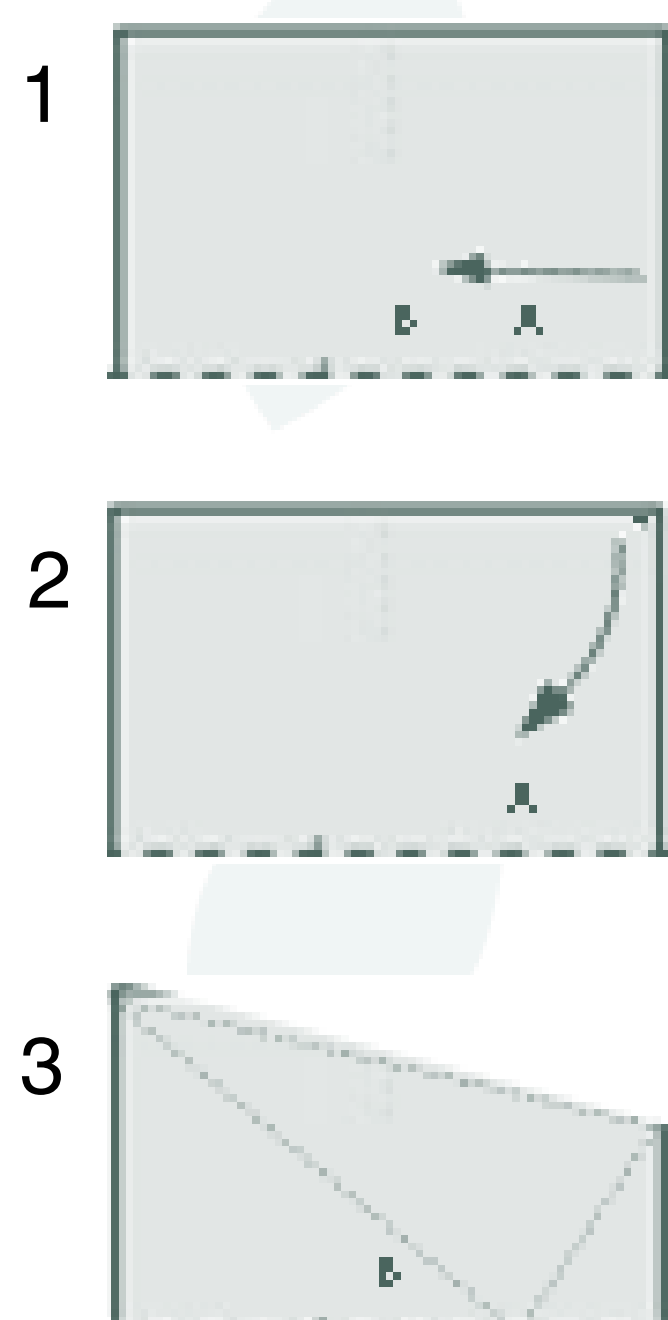
Decorate and make your own kite to enjoy on a breezy day.

Resources Needed:

- 1 A4 sheet of paper
- String (long enough to fly your kite)
- Stick
- Stapler
- Ruler

The Build:

- Fold your sheet of paper in half.
- Along the folded edge measure point A 2 ½ inches from right edge, and point B 1 inch in from point A.
- Curl the top right corner over to meet point A then staple in place - do not fold it, you want to create a curve.
- Turn the paper over and curl the left corner down to point A, stapling the curve into place.
- Make a small hole through the paper at point B - try not to put the hole too close to the edge.
- Tie the string through the hole at point B and wrap the other end around a stick, so that it doesn't get tangled.



Grow a Pine Cone

Have a go at growing a tree from a fallen pine cone.

Using a freshly fallen pine cone will make it more likely to germinate.

Resources Needed:

- Fresh pine cone
- Soil
- Pot

The Build:

- Sit the base of your fresh pine cone in a pot with some soil, make sure to leave the top part poking out.
- Place on a windowsill.
- Add a small amount of water every day (if you add too much it will rot the pine cone).
- After a few weeks you will start to see green sprouts coming from the top!
- Once there is plenty of green sprouts you can plant it out in the garden or a larger pot.



Conker Game

This classic playground game has been played for generations, and this quick guide will get first timers started.

Resources Needed:

- Conkers (1 for each player)
- String or Shoe Lace
- Screwdriver (or similar tool to make the hole)

The Build:

- Use something sharp to pierce a hole all the way through the middle of the conker (adult help required!).
- Thread the string through the hole and tie a large, strong, knot at one end.
- Slide the conker down to the knot, ensuring that it cannot fall off.

The Game:

- One player stands with their arm fully extended out to the side, holding the end of their string.
- The other player gets 3 attempts to try and hit the conker with theirs.
- Players swap places, taking 3 attempts each until one of the conkers breaks.
- The player with the surviving conker is the winner!



Leaf Windmill

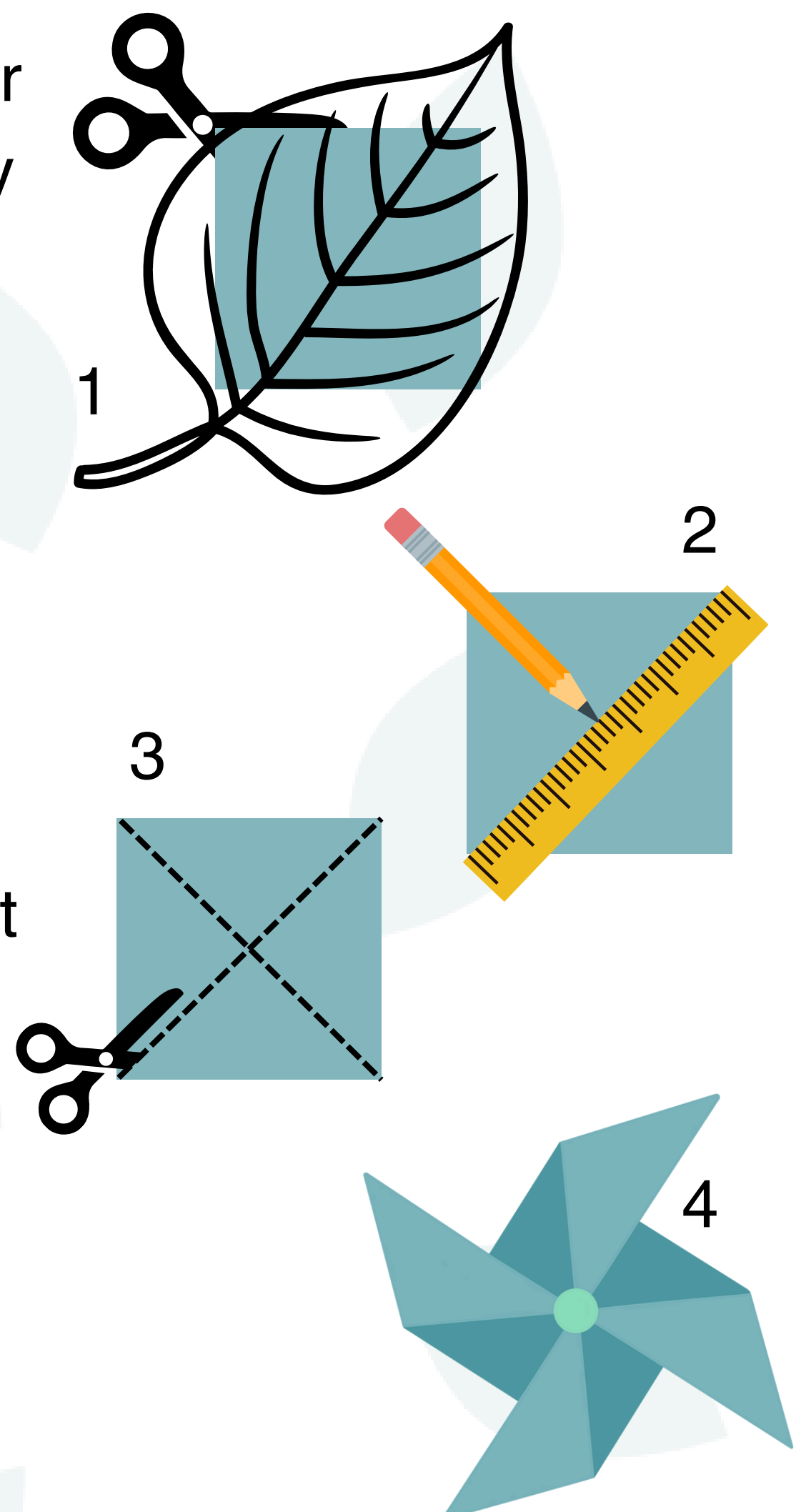
Make use of natural resources to make a simple windmill.

Resources Needed:

- A large leaf
- Scissors
- Pencil & Ruler
- Stick
- Drawing pin

The Build:

- Cut a square from a large leaf (1).
- Draw a line diagonally from one corner to another, repeating the opposite way to create a cross shape (2).
- Cut half way into each of the lines (3).
- Curl every other point into the middle of the cross - be careful not to fold them as you want each to have a curve (4).
- Secure the sails of the windmill to the stick with a drawing pin - checking that the pin is not too tight and the sails can spin around.



Weather Vane

Have a go at measuring wind direction by creating a weather vane from simple materials.

Resources Needed:

- Pencil - with a rubber on the end
- Drawing Pin
- Card
- Pens
- Twig
- Paper plate/paper cup
- Scissors, Blu Tac, Glue

The Build:

- With a pen draw a cross on the paper plate, and label the 4 quarters - North, East, South, West, in that order.
- Turn the paper cup upside down and pierce a hole in the centre, by pushing a pencil (point first) through the base.
- Place enough blu tac onto the centre of the plate to secure the pencil in place.
- Glue the cup to the plate, with the pencil remaining in place through the middle of the cup.
- Cut a triangle and a square from the card.
- Split the twig in half at each end, just enough to push the card in to create an arrow shape.
- Find the centre of the twig and use the drawing pin to secure it to the end of the rubber.



Night-Time Moth Watch

There is lots happening outside when the sun goes down. Why not take a look for yourself

Resources Needed:

- White Sheet
- Rope/Washing Line
- Pegs
- Torch/Light

The Build:

- If using a rope, stretch across 2 points tightly, securing both ends
- Stretch out the sheet across the rope or washing line and peg tightly in place
- Make sure the area is dark and all surrounding lights are switched off
- Shine a light onto the sheet
- Wait patiently for the moths to come and see which ones you can identify



PECT
CREATING SUSTAINABLE PLACES



**CLIMATE
EDUCATION**

Day-Time Moth I Spy

**Burnet
Companion**



**Argent &
Sable**



Magpie



**Scarlet
Tiger**



**Six-Spot
Burnet**



Mint



Forester



Emperor



**Chimney
Sweeper**



**Speckled
Yellow**



**Mother
Shipton**



Fox



**Hummingbird
Hawk**



Cinnabar



Silver-Y



Oak Eggar



PECT
CREATING SUSTAINABLE PLACES










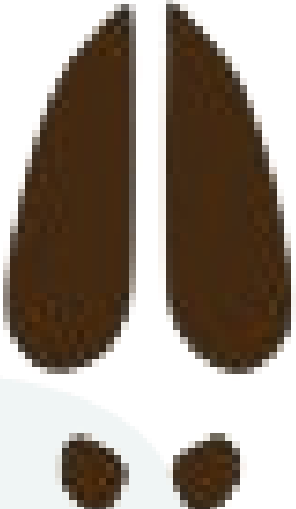
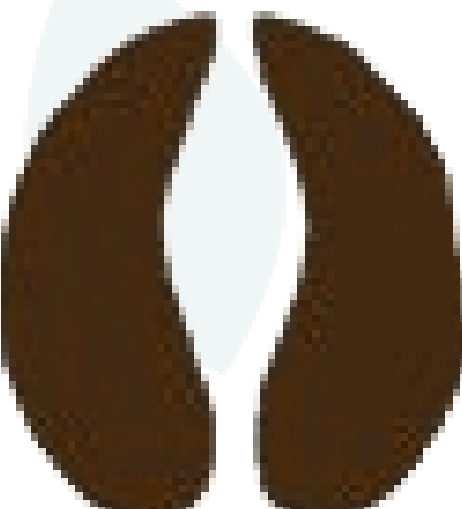
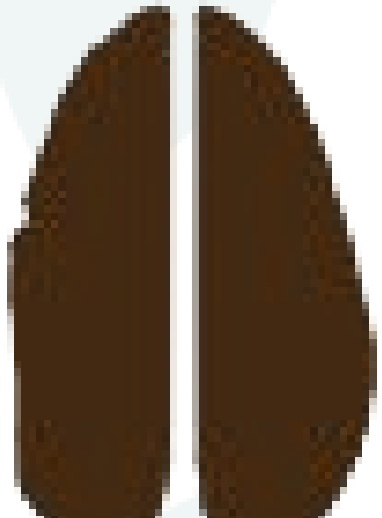






**CLIMATE
EDUCATION**

Night-Time Moth I Spy

<p>Garden Tiger</p>  A moth with brown and white patterned wings and a bright orange band with blue spots.	<p>Peppered</p>  A moth with dark, mottled grey and black wings.	<p>Elephant Hawk</p>  A vibrant moth with pink and yellow wings and a green stripe.	<p>Bood Vein</p>  A moth with light brown wings featuring faint, wavy lines.
<p>Poplar Hawk</p>  A moth with large, greyish-brown wings and a long, thin tail-like extension.	<p>Brimstone</p>  A bright yellow moth with dark spots and a small black mark on the wing.	<p>Angle Shades</p>  A brown moth with wings that have a jagged, torn edge.	<p>Yellow Underwing</p>  A brown moth with a bright orange-yellow band on its underwing.
<p>Red Underwing</p>  A dark moth with a prominent red and black pattern on its underwing.	<p>Common Plume</p>  A moth with long, thin wings and a very long, thin tail.	<p>Common Quaker</p>  A brown moth with a lighter, circular patch on its wing.	<p>Buff Tip</p>  A moth with brown and white wings and a distinct buff-colored tip.
<p>Hebrew Character</p>  A moth with brown wings and a dark, wavy pattern.	<p>Swallow Tailed</p>  A yellow moth with a long, thin tail-like extension.	<p>Scalloped Oak</p>  A yellowish-brown moth with a scalloped edge on its wing.	<p>Heart & Dart</p>  A moth with brown and white wings and a heart-shaped pattern.

Animal Tracking

<p>Dog</p> 	<p>Cat</p> 	<p>Mouse</p> 	<p>Human</p> 
<p>Chicken</p> 	<p>Duck</p> 	<p>Heron</p> 	<p>Crow</p> 
<p>Horse</p> 	<p>Deer</p> 	<p>Cow</p> 	<p>Sheep</p> 
<p>Hedgehog</p> 	<p>Squirrel</p> 	<p>Badger</p> 	<p>Fox</p> 

Tree Seed I Spy

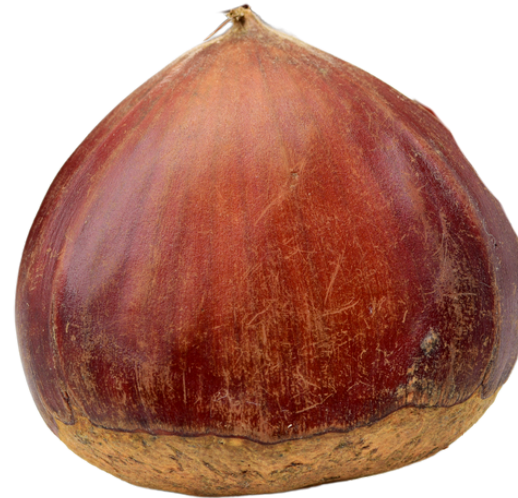
Acorn



Conker



Chestnut



Ash Key



**London
Plane Seed**



Lime Seed



Beech Mast



**Hornbeam
Seed**



Pine Cone



Alder Cone



Conifer Cone



Hazel Catkin



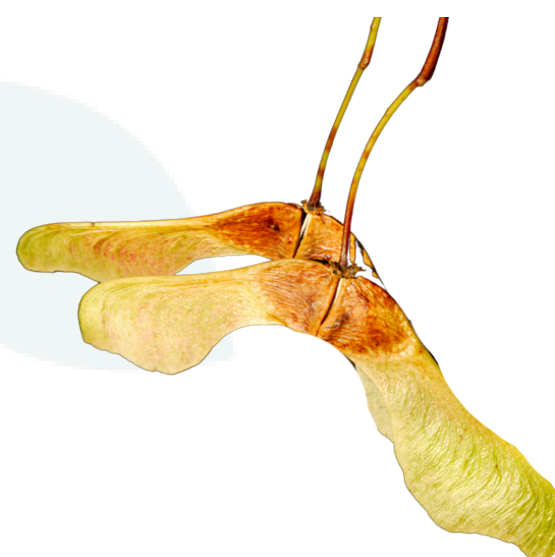
Willow Catkin



**Silver Birch
Catkin**



**Sycamore
Wings**



Maple Wings


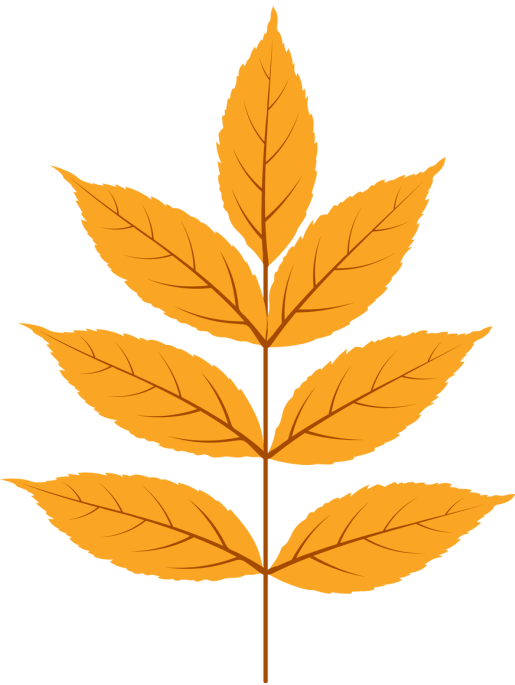
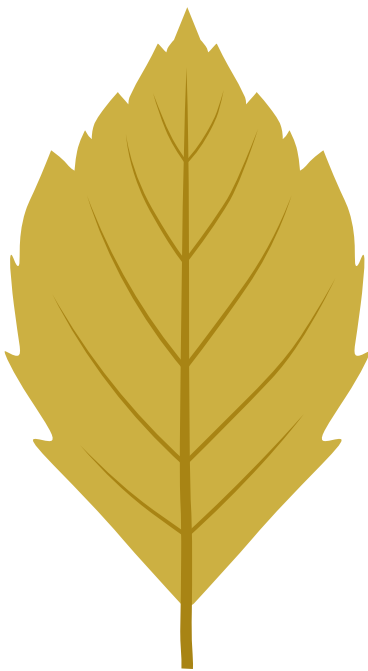
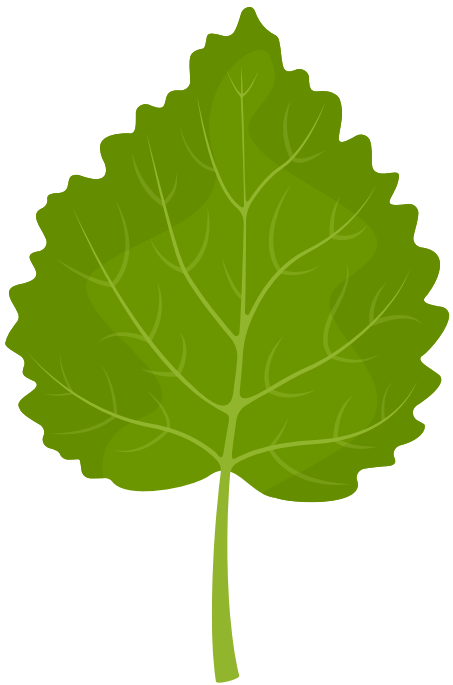




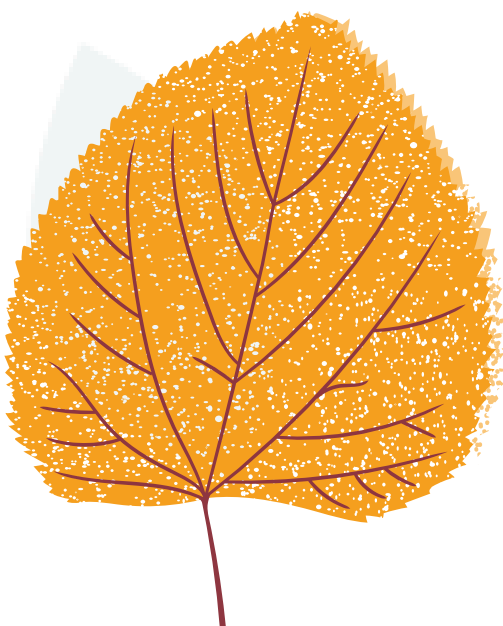



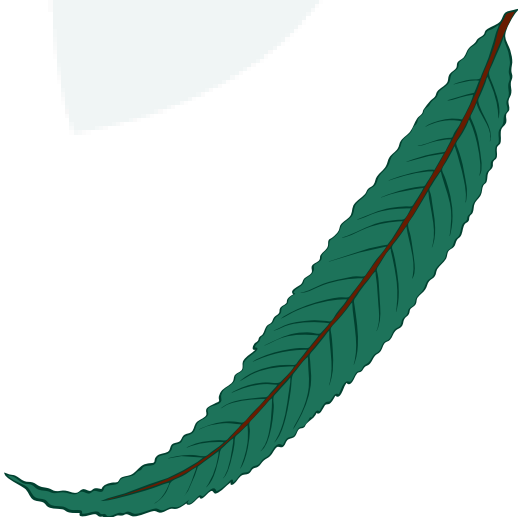


PECT
CREATING SUSTAINABLE PLACES



**CLIMATE
EDUCATION**

Tree Leaf I Spy

<p>Alder</p> 	<p>Ash</p> 	<p>Beech</p> 	<p>Birch</p> 
<p>Elder</p> 	<p>Elm</p> 	<p>Hawthorn</p> 	<p>Hazel</p> 
<p>Holly</p> 	<p>Horse Chestnut</p> 	<p>Lime</p> 	<p>Maple</p> 
<p>Oak</p> 	<p>Rowan</p> 	<p>Sycamore</p> 	<p>Willow</p> 

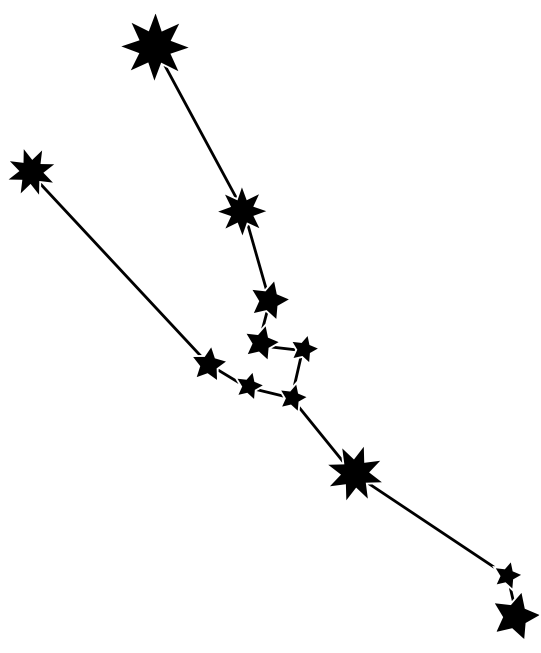
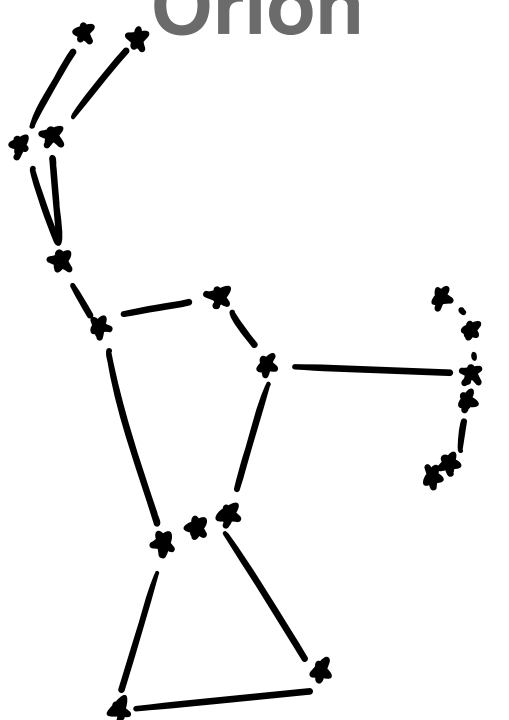

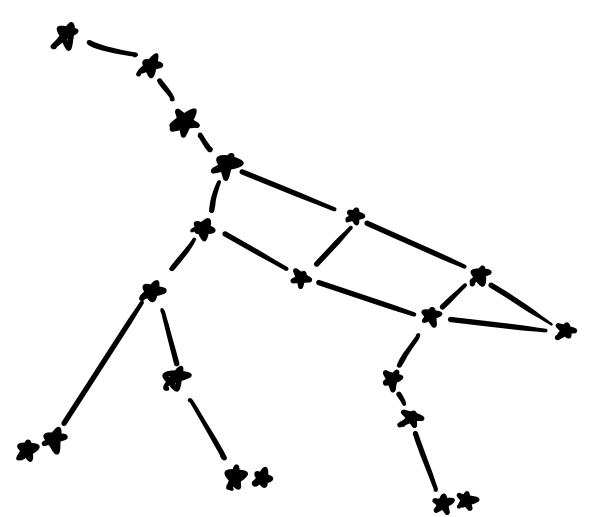
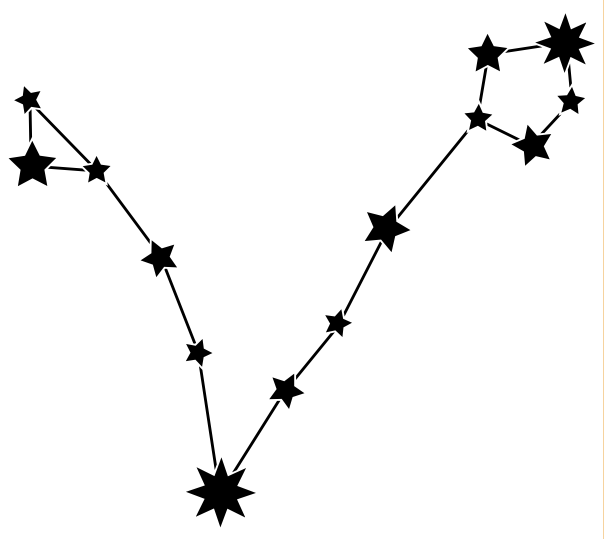
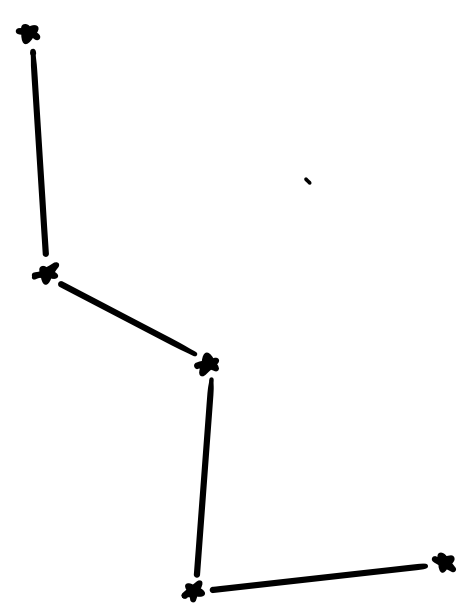
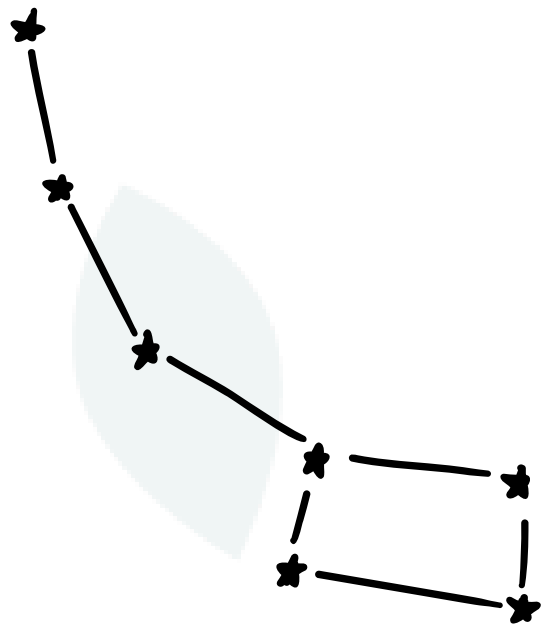
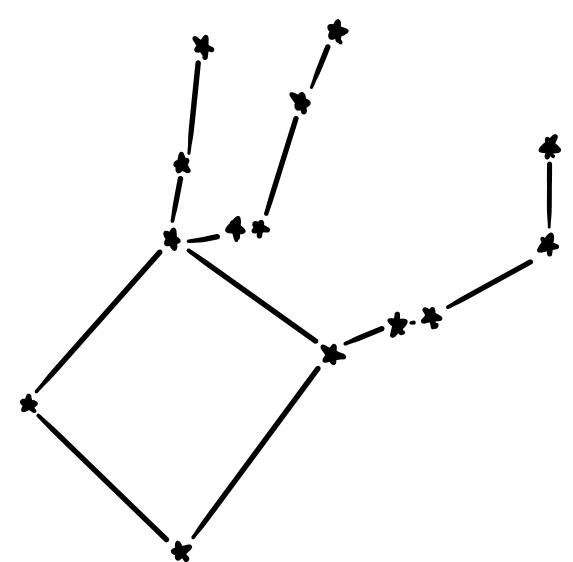
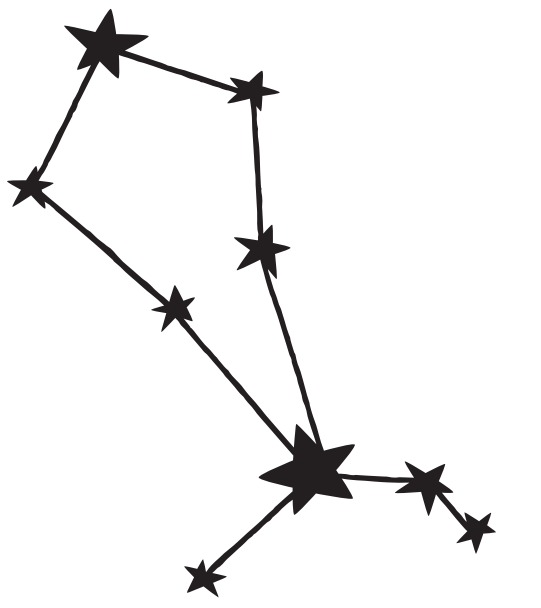
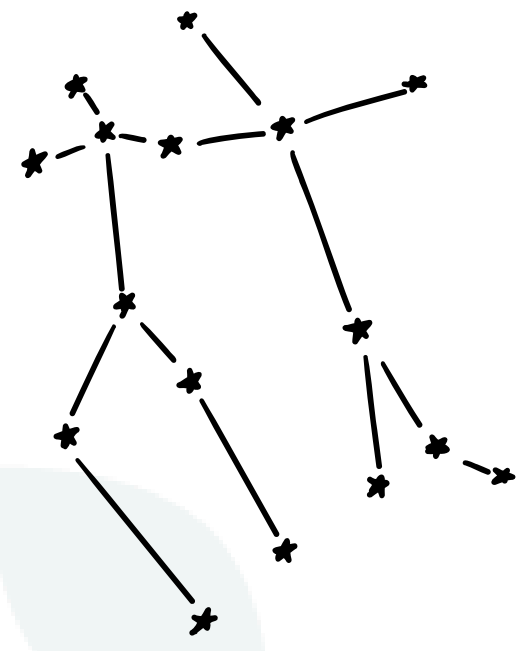

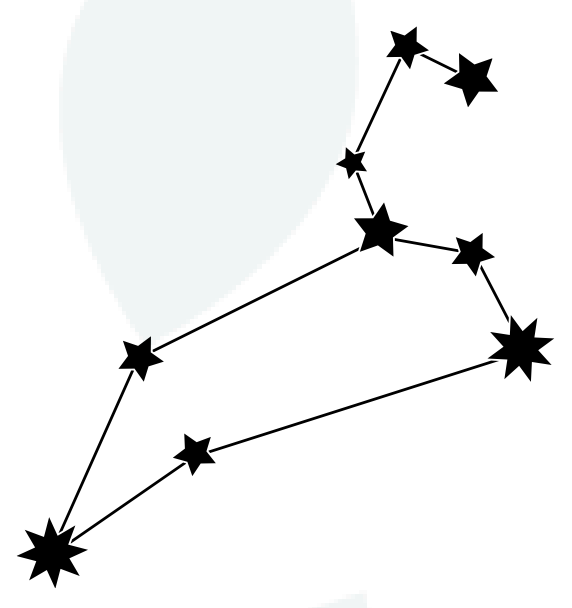
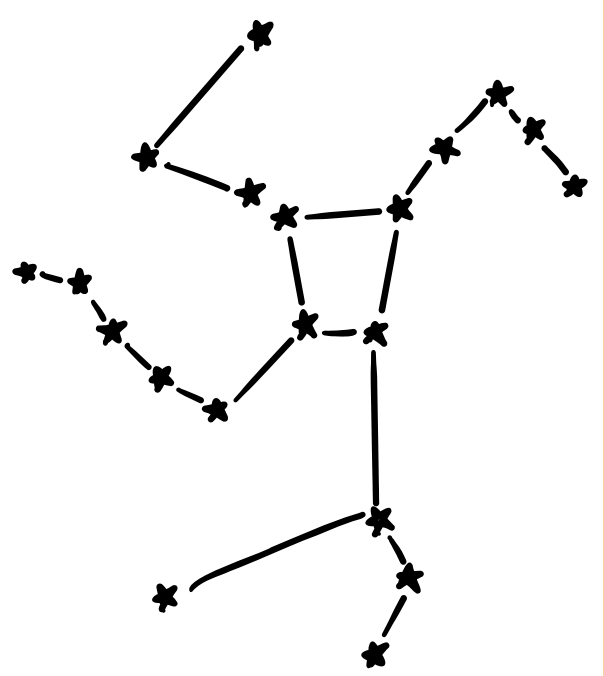
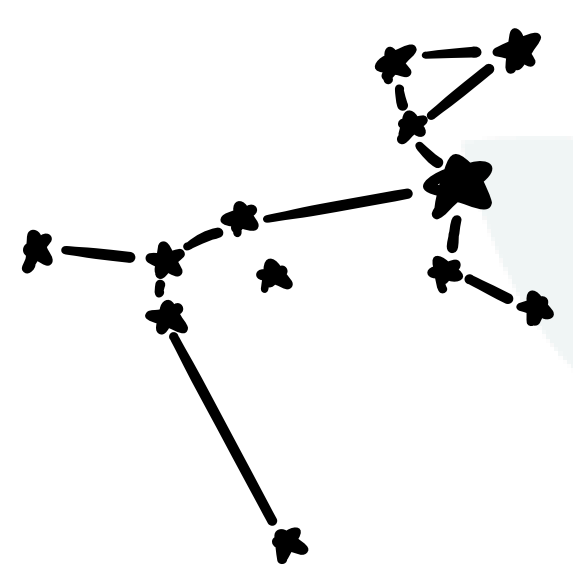
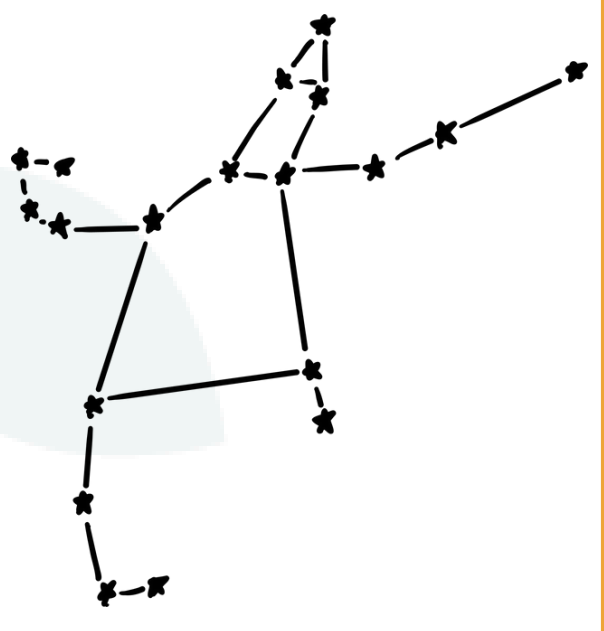
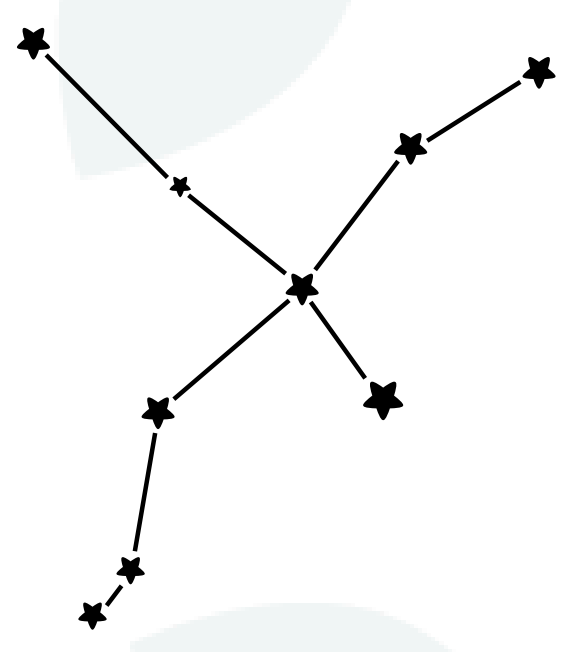


PECT
CREATING SUSTAINABLE PLACES



**CLIMATE
EDUCATION**

Constellation I Spy

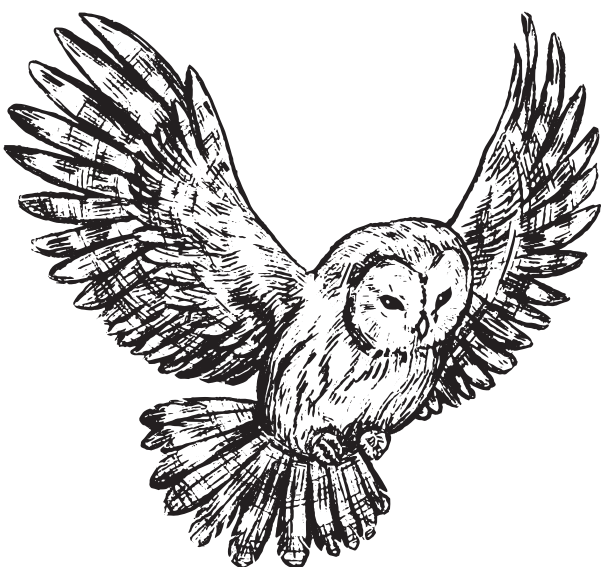
<p>Taurus</p> 	<p>Orion</p> 	<p>Scorpius</p> 	<p>Ursa Major</p> 
<p>Pisces</p> 	<p>Cassiopeia</p> 	<p>Ursa Minor</p> 	<p>Pegasus</p> 
<p>Bootes</p> 	<p>Gemini</p> 	<p>Sagittarius</p> 	<p>Leo</p> 
<p>Hercules</p> 	<p>Canis Major</p> 	<p>Perseus</p> 	<p>Cygnus</p> 

Night-Time Safari

Badger



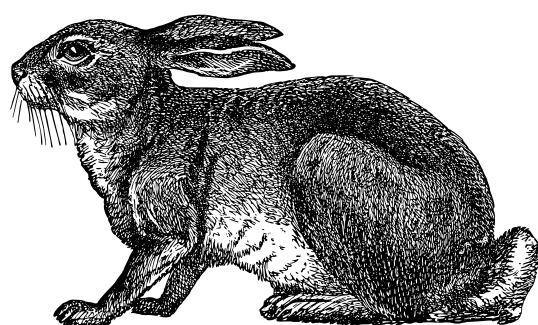
Owl



Bat



Rabbit



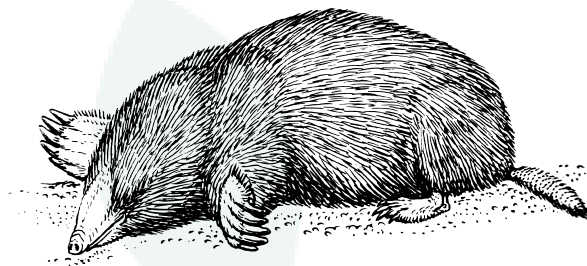
Fox



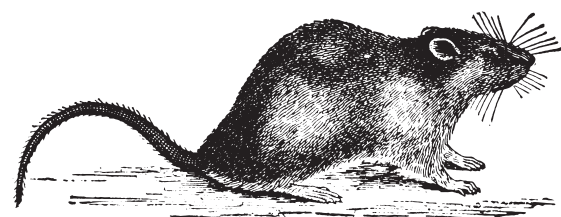
Hedgehog



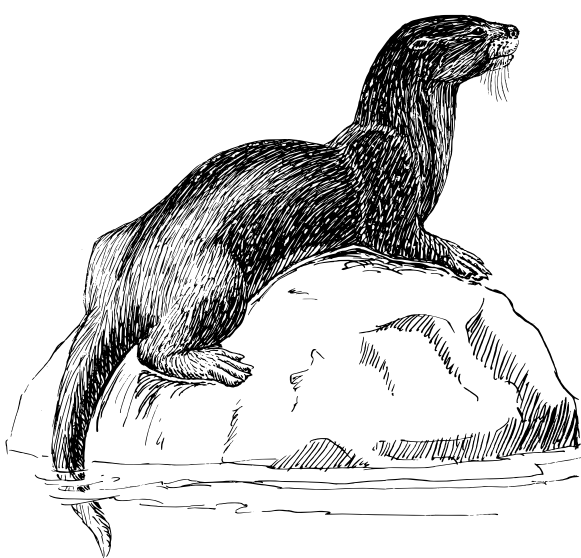
Mole



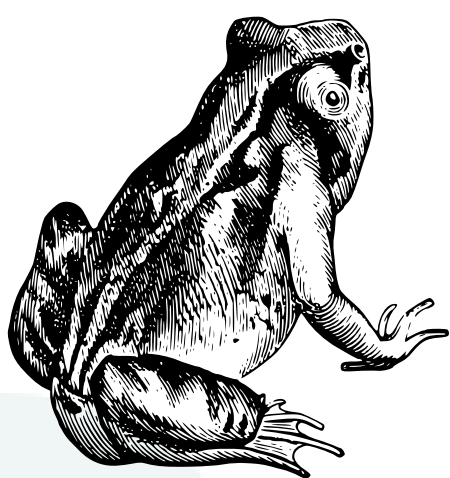
Mouse



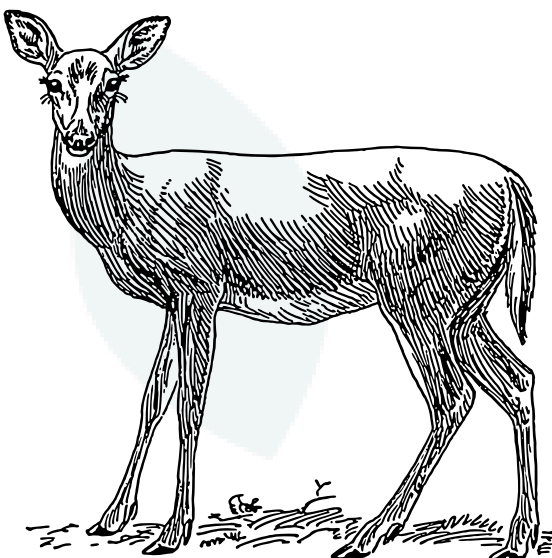
Otter



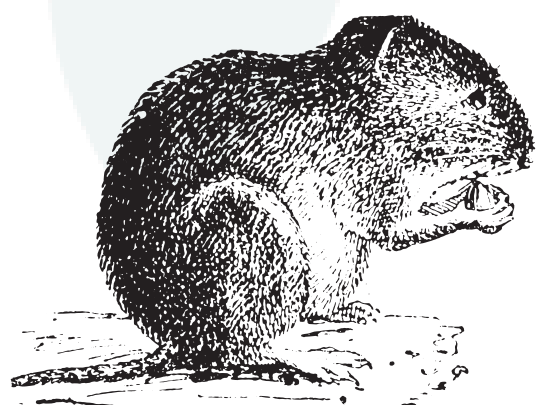
Toad



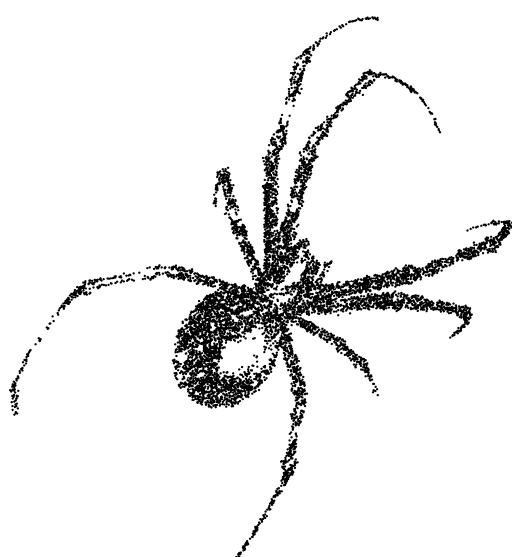
Deer



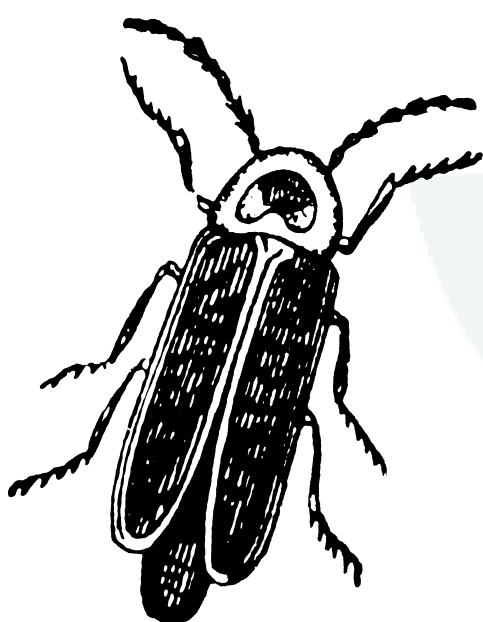
Vole



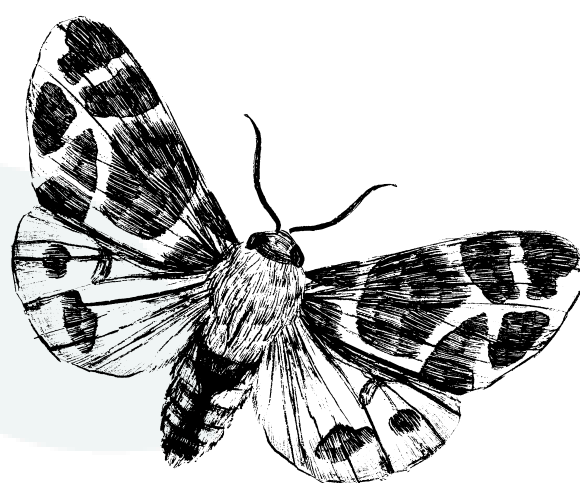
Spider



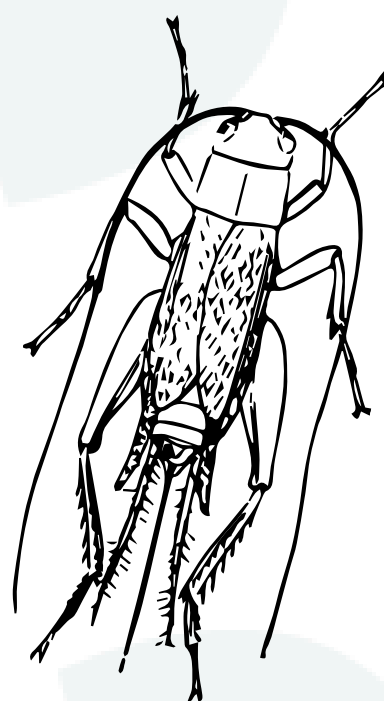
Firefly



Moth



Cricket

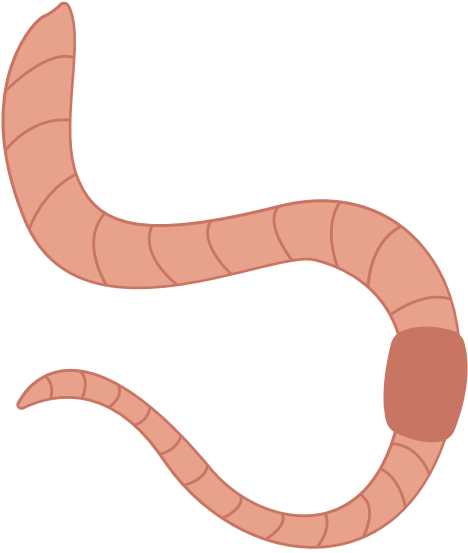


PECT
CREATING SUSTAINABLE PLACES



**CLIMATE
EDUCATION**

Autumn Bingo

Conker 	Worm 	Pumpkin 	Hedgehog 
Sunflower 	Owl 	Spider Web 	Apple 
Mushroom 	Leaf 	Scarecrow 	Seeds 
Blackberries 	Acorn 	Fox 	Spider 



PECT
CREATING SUSTAINABLE PLACES



**CLIMATE
EDUCATION**