## Garden Fun Challenge Pack

This pack was put together by the unit teams of $1^{\text {st }}$ and $4^{\text {th }}$ Barnehurst Rainbows and $4^{\text {th }}$ Northumberland Heath Rainbows as part of their event fundraising during lockdown in 2020.

In this pack you will find a selection of activities in the following topics

- Garden Foods
- Garden Friends
- Garden Science
- Indoor Gardens
- Garden Games
- Garden Songs

Badges can be ordered using the order form at the back of the pack.

We would love to see what you and your units get up to when completing the badge and you can share this on social media with us on any of the details below:
D4thNorthHeath
DBarnehurstRain1

DGGErithcrayDiv
\#GardenFun

Hopefully, we have included a real variety of activities and also lots of resources to help too.

There is no requirement to complete a set amount of activities, The Garden Science section could be used towards Innovate Stage 1 (Exciting Experiments). There is also a link to Guide UMA Plastic Planting as well. Do look through as we're sure you'll find some other overlaps.

If you have any questions, or have any suggestions of additional activities, please do get in touch through email: barnehurstrainbows4ळgmail.com

## Garden Foods

## Savoury Flowers

## Equipment

- Celery
- Cheese slices
- Plate


## what to do



1. Cut a stem of celery into thin strips and place of a plate
2. Cut the cheese slices into different shapes to represent varieties of flowers

## Apple and Raisin Flower

Equipment

- Apple
- Raisin
- Plate
what to do

1. Cut apple into chunks and one long strip as shown.

2. Place raisins on plate and arrange apple chunks around them to form a flower head, stem and leaves.

## Kiwi Christmas Tree

## Equipment

- Kiwi Fruit
- Apple or tomato
- Kebab stick
what to do

1. Peel the kiwi fruit and cut into slices.
2. cut each slice in half and arrange either side of a kebab stick as shown.
3. From the apple or tomato cut a star - you could use a small cutter to do this. Place the star at the top of the tree.


## Fruit Butterflies

## Equipment

- Kiwi fruit
- Strawberries
- Banana
- Blueberries
- Cheerio type cereal hoops
- Cheese slices
- Mustard and cress
- Icing tubes


## what to do

1. Peel the kiwi and cut into thin slices.
2. Cut strawberries into thin slices.
3. cutbanana into thin slices.
4. cut circles from the cheese, also cut elongated ovals.
5. Assemble the fruit butterflies as shown. Use icing for the mouth, eyes and for the stripes on the body. Coloured cereal hoops can be used for the antennae.
6. Strawberries can be cut into small flowers and placed into mustard and cress which can be used to represent the grass the butterflies are flying above.

## Equipment

- Strawberries
- Apple
- Grapes
- Flaked almonds
- Blueberries
- Icing tubes
- Banana
what to do

1. cut grapes in half.
2. Cut strawberries into thin slices.
3. cut apple into thin strips.

4. Cut banana into slices.
5. Arrange strawberry slices into a flower shape. Add a blueberry as the flowers centre.
6. Use the thin strip of apple for the flower stem and place a grape half either side to represent leaves.
7. Decorate the banana slice to look like a bee with icing. Add wings using the flaked almonds.

## Orange Pumpkin Fruit Cups

Equipment

- Oranges
- Blueberries
- Raspberries
- Grapes

What to do

1. Slice the top off the orange.
2. Using a spoon, scoop out the pulp and insides of the orange and keep to one side.

3. Using a knife, careful cut out a face on the orange to resemble a Jack O Lantern.
4. Toss the fruit in the orange pulp and use to fill the orange shell.

## Apple Baskets

Equipment

- Apple
- Soda water
- Liquorice sticks or similar
- Diced fruit-strawberries,
pineapple, kiwi, and
blueberries


## What to do

1. Cut the top third off an apple.
2. Use an apple corer or a metal spoon to scoop out the insides of the apple out. Leave around a quarter inch intact around the outside.

3. Carefully cut two notches into the sides of the apple, about the width of a piece of lignorice, directly across from each other, without cutting the peel.
4. Place the apple in a bowl and fill with soda water and allow to soak for about 3 minutes.
5. Pour out the soda water and insert the pieces of liquorice into the cut-out notches.
6. Fill the apple baskets with the diced fruit.
7. Eat and enjoy!!!

## Cucumber Trees 1

Equipment

- cucumber
- Wooden sticks
- Cherry Tomatoes
what to do

1. cut the cucumber into chunks as shown
2. Thread onto a wooden stick and top with a cherry tomato


## Cucumber Trees 2

## Equipment

- cucumber
- cocktail sticks
- Cheese

What to do

1. Cut a chunky slice of cucumber and cut this in half. This will be the trunk base of the tree

2. Using a vegetable peeler cut a long slice of cucumber as shown
3. Thread the cucumber on the stick and top with a cheese star

## cucumber Trees 3

Equipment

- cucumber
- cocktail sticks
- carrot

What to do

1. Peel the carrot and cut into $1 / 2 \mathrm{~cm}$ rounds
2. Using a mini star-shaped cutter, cut a star from a slice of carrot
3. Using a vegetable peeler, cut long strips from the cucumber, the whole length long
4. Starting at the smallest end, carefully fold a strip of cucumber back and forth, starting with small folds and getting gradually bigger with each one, until you have created a tree shape
5. Push the folds together, and push a cocktail stick through to skewer them from top
 to bottom
6. Push the cocktail stick into a slice of carrot pieces, big fold side down and push a carrot star onto the other end of the cocktail stick

## Butterfly Frozen Yogurt Bite

## Equipment

- Yogurt - Greek style or
vanilla flavour
- Mango
- Blueberries
- Raspberries
- Almonds
- Cake
cases

- Kiwi fruit

What to do

1. Place the cake cases into a muffin tin.
2. Fill each case with yogurt.
3. Carefully arrange the fruit on top to make butterflies wings, add a whole almond for the body.
4. Put the tray in a freezer and allow to freeze.
5. Remove the cake case and serve.

## Roasting Sunflower seeds

You can harvest sunflower seeds when the middle of the flower starts to turn brown. Cut the flower head, keeping about six inches of stem, and hang it up somewhere safe to dry. Put a piece of fabric or a bag on the head to catch any drying seeds that might fall out.

## Equipment

- Sunflower seeds
- Salt
- Herbs
- Oil
- Pepper


## what to do

1. Preheat an oven to about 300 degrees.
2. Lay out the seeds on a baking tray. Make sure they are evenly spaced for better roasting.
3. Add salt, pepper, and other herbs to taste, but it is not necessary.
4. Add a little cooking oil if you want to get them browned quicker.
5. Olive oil works well because it will not brown the seeds as fast and tastes good with the sunflower seeds' naturally nutty flavour.

## Flower Garden Puddings

Equipment

- Clear beakers
- Chocolate and butterscotch Angel Delight
- Mini marshmallows
- Chocolate chips
- Desiccated coconut
- Green food colouring
- white daisy silk/artificial flowers
- Green plastic spoon


## what to do

1. Place chocolate angel delight in the bottom of the beaker - this is the soil.

2. Add mini marshmallows - these are rocks.
3. Add butterscotch angel delight - this is sandy soil.
4. Add chocolate chips - these are different stones.
5. Add more chocolate angel delight.
6. Colour the coconut green and add to the beaker to look like grass.
7. Make a flower by gluing white daisy heads to the ends of green plastic spoons
8. Place in the pudding.

## Edible Dirt Cups

Equipment

- Chocolate Angel Delight
- Oreo or bourbon biscuits
- Gummy worms
- Plastic beaker
what to do

1. Break the biscuits into small pieces.
2. Alternate layers of broken biscuits and chocolate angel delight in the beaker.
3. Place gummy worms on top.

## Garden Friends

## Birds

## Apple Bird Feeders

## Equipment

- Birdseed
- water
- 2 Packets Gelatine
- 4 Apples
- 8 small screws
- Twine



## What to do

1. Bring water to boil, add gelatine, and stir until completely dissolved.
2. Mix the birdseed into this mixture.
3. cut the apples in half lengthwise and hollow out the insides with a spoon or knife.
4. Fill each apple with birdseed mixture, place on a tray, and put in the fridge for 1-2 hours or until firm.
5. Push a screw into the top of each apple and tie a piece of twine to it
6. Hang outside for all the birds to enjoy!

## Pinecone Feeder

Equipment

- Pinecones
- Ribbon
- Birdseed
- Tray
- Peanutbutter


## What to do

1. Cover pinecone with peanut butter - leave top clear

2. Place birdseed in tray - so as to contain and not make a mess
3. Roll the pinecone around in the birdseed until it is completely covered
4. Tie on a ribbon, hang it from your favourite tree, and wait for your feathered friends to come and feast!

Cheerio-Blueberry Bird Feeder

## Equipment

- Cheerios
- Blueberries

What to do


1. Bend one end of pipe cleaner to prevent fruit etc falling off
2. Thread berries and cereal onto pipe cleaner
3. When full, twist ends together and bend into hearts or circles
4. Tie on a length of string and hang on a tree

## Equipment

- Fruit - grapes, blueberries,
- Pipe cleaners and dried cranberries
- String
- cheerios


What to do

1. Thread fruit and cheerios onto pipe cleaner
2. Twist ends together to secure once full
3. Tie on a bow if wanted and use string to hang from a tree

## Apple Rings

Equipment

- Apples
- Apple corer
- String


## what to do

1. Use apple corer to remove core from apples
2. Cut into thick slices

3. Thread string through the apples and hang from a tree

## Peanut Rings

## Equipment

- Peanuts in shells

What to do

- Florist wire

1. With a knitting needle drill a hole through the peanut in the middle so that you can then thread it onto the floral wire
2. Repeat until you have enough peanuts to make a circle. connect the ends of the wire and make sure that no pointed ends protrude so birds do not injure themselves. Tie on a ribbon and hang in garden

## Orange Cup Birdfeeder

Equipment

- Empty orange halves
- Sunflower seeds
- Dried cranberries
- Peanuts
- Cornkernels
- Butter
- Peanut butter


What to do


1. Melt butter and peanut butter over a low heat and place at least a tablespoon into each orange half
2. Mix nuts and berries together and place some in each orange on top of butter mix and allow to set
3. Spear the bottom of each orange onto twigs or branches in the garden to secure

- Orange
- String
- Birdseed
- Kebab skewers what to do

1. Start by cutting the orange in half and scooping out all the fruit until just the orange peel bowls are left
2. Take a skewer and push it through one side of the orange and out the other side crossing through the middle. Do the same with another skewer from another side of the orange
3. Next, cut 4 pieces of string each about 18 inches long. Tie each end of the string to each end of a skewer. Each orange bowl now has 2 string hangers to hang the bird feeders from. This keeps them hanging steady for the birds.
4. Fill the orange bowls with birdseed


## Craft Stick Bird Feeder

## Equipment

- craft sticks
- String
- Glue
- Birdseed


## what to do

1. Line up 12 craft sticks. Glue 2 sticks across them. Turn it over
2. Glue on a second row of craft sticks going in the opposite direction to strengthen the base

3. Alternate craft sticks around the frame once
4. Glue a wide craft stick in place to act as a perch
5. continue alternating craft sticks around the outside until you have 6 rows, gluing each craft stick down as you go
6. Allow to dry and paint if wanted
7. Secure string to the underside of the bird feeder and thread underneath the top row of craft sticks and glue in place
8. Place birdseed in the feeder and hang from a tree
9. With this craft it is important that a really strong glue is used to ensure that feeder does not collapse with weight of birds

## Plastic Buttle Bird Feeder

Equipment

- Empty plastic bottle
- Wooden skewers, dowel, or chopsticks
- String
- Scissors
- Birdseed


## What to do



1. Use scissors to make holes in the bottle. Ensure the holes are opposite each other
2. Poke a chopstick through a hole to a corresponding hole on the opposite side of the bottle. Repeat two or three times to form perches for birds to sit on
3. Use the scissors to make a hole above each perch. The birds can use the holes to get access to the bird seed
4. Make two further holes at the top of the bottle on opposite sides. Thread string through the holes and knot to make a loop to hang up the bird feeder. Fill with bird seed

Equipment

- Empty milk bottle - $21+r$
- Scissors
- String
- Bird food

What to do


1. Ensure bottle is clean and make several small holes in the bottom to allow rainwater to drain away
2. Make a large hole in two sides of the bottle by cutting the plastic with scissors, bend the flap down to act as a perch
3. Either make a hole near the top of the bottle and thread with string or tie string around the neck of the bottle
4. Fill the bird feeder with fruit or birdseed and hang from a tree

## Fruit Juice Carton Bird Feeder

## Equipment

- Empty juice carton
- Scissors
- Paint
- String


## what to do

1. Draw the shape of wings either side of the juice carton as shown. Cut out but ensure the top is still attached

2. cut out a shape from the back and front of the carton
3. Carefully paint the carton with acrylic paint and allow to dry
4. When dry paint on beak and eyes and let dry
5. If wanted, make a hole underneath the wings on either side of the carton and push a piece of dowel through to act as a perch. Repeat underneath the hole back and front of the carton
6. Make a hole at the top of the carton and thread with string so the feeder can hang up
7. Bend the wings outwards, add birdseed. The bird feeder is now ready to hang in a tree

## Flowerpot Birdbath

Equipment

- Flowerpot
- Saucer

What to do

1. Choose an empty place in your garden that is near trees or shrubs
2. Turn the flowerpot upside down, set the saucer atop the base and fill it with water
3. Ensure the saucer is kept both clean and filled


- String or wool
- Balloon
- Glue
- Flour
- Vaseline/petroleum jelly
- Twigs
- Grass or straw


## what to do

1. Blow up the balloon
2. Mix the glue (PVA type) with some flour and water. It should be thick and not too runny
3. Hang the balloon up and cover the surface with Vaseline
4. Cut a length of string and place in glue mixture. Move is around so it is well covered with
 glue
5. Wrap the string around the balloon, ensure you leave spaces as shown. Allow to dry overnight
6. POP and remove the balloon
7. Carefully place nest materials such as twigs, grass, straw, pieces of wool, moss etc into the sphere
8. Tie onto a tree branch and watch the birds come and shop for their nesting materials!!!!!!

## Butterflies

## Butterfly Feeder 1

## Equipment

- Empty jam jar with lid
- Natural sea sponge
- Hammer
- Nail
- Sugar
- String
- Paint-optional



## What to do

1. Paint lid and jar if wanted and allow to dry, carefully use nail and hammer to make a hole in the lid
2. The next part is a little tricky but can be done. cut a piece of sponge that is between 1-2 inches square. Wet the sponge and poke it through the hole in the lid of the jam jar to about half its
 length
3. cut two pieces of string, each 6 to 8 inches in length. Tie them around the mouth of the jar so there is a knot on either side, as shown. There will be two pieces of string going around the jar
4. Bring string " $B$ " around to the front of the jar. Loop string " $B$ " through the bottom piece of string that circles the jar. Pull it all the way through, then loop it up and back through the top string that circles the jar. Tie a slip knot in string "B" before pulling it tight against the jar
5. Do the same thing on the other side of the jar, this time using string " $C$ ". When you are finished, strings " $A$ " and " $D$ " should be in their original places, and strings " $B$ " and "C" should be opposite each other on the other two sides of the jar
6. Now, flip the jar over and bring strings " $A$ " and " $D$ " to the bottom of the jar (when the jar is upside down, this becomes the top). Tie tightly at the centre base of the
 jar. Bring the other two strings to the bottom of the jar and tie tightly over and around the knot that is already there
7. At this point, do the following. 1) Tie all four strings together into one final hanging loop, -OR-2) Take each string back to the top of the jar (where the lid and sponge are) and loop them through the strings that were tied around the mouth of the jar, then bring them all back to the top and tie them all together into a hanging loop
8. Make a butterfly nectar solution by mixing 1 part cane sugar to 9 parts water. Heat mixture until sugar is dissolved. Cool, and pour into the feeder. Pinch the sponge together a few times to make sure the nectar is soaking through. Hang feeder from a hook, or tree branch and wait for the butterflies and bees to discover it!

## Butterfly Feeder 2

## Equipment

- Small jar
- Kitchen sponge
- String
- Scissors
- Sugar
- water

What to do

1. Cut sponge so it fits snugly in the jar
2. Make a butterfly nectar solution by mixing 1 part cane sugar to 9 parts water. Heat mixture until sugar is
 dissolved. Cool, and pour into the feeder
3. Pinch the sponge together a few times to make sure the nectar is soaking through
4. Tie string securely round the top of the jar and hang feeder from a hook or tree branch

## But+erfly Feeder 3

## Equipment

- Plastic flowerpot saucer
- String or wool
- Beads
- Fruit-banana,
strawberry
what to do

1. Make holes around the rim of the saucer, along with some in the base to drain rainwater
2. cut lengths of string and thread through the holes in the rim. Secure in place with
 a knot
3. Thread beads onto each string. Gather strings together and tie a knot that will prevent beads from falling off strings and can be used to hang up feeder
4. Cut fruit into small pieces and place on saucer
5. Hang feeder from a tree

## Bees

Bees use water to manage the consistency of honey and thin out honey that has crystallized. They also use water to:

- to help with digestion
- to keep the hive cool - they fan it with their wings
- to feed the babies - to create royal jelly for the larvae


## Bee Bath

Equipment

- Shallow dish
- Stones
- Plant pot
- Water


## what to do



1. Choose a spot in the garden where it is protected and shady
2. Place a plant pot upside down to use as a base and place a shallow dish on top of the pot
3. Add a few stones into the dish and add just enough water so that the tops of the stones are not submerged
4. Change water daily and clean the bee bath weekly. Watch the bees enjoying the bath

Equipment

- Empty plastic bottle
- String
- Brown paper
- Scissors


## What to do

1. Ensure bottle is clean and dry
2. cut top off the bottle
3. Cut the paper into rectangles which are long enough to fit in the bottle

4. Roll each rectangle into a "straw" shape
5. Secure with glue if necessary - vary the diameter of the tubes
6. Insert each "straw" into the bottle until completely filled
7. Add string and hang in the garden ready for bees to visit

## Worms

Worms are essential for good soil in a garden. Try this science project to see what they do

## Wormery

## Equipment

- Large jar or plastic bottle
- Gravel
- Soil
- Sand
- Leaves and grass
- Water
- worms

2. After you have made your layers, drizzle some water all over the top layer of dirt

3. Now, add 2 or 3 worms
4. Once your worms are in, gently place the leaves and grass on top and then, put on your lid. Make sure that there are air holes in your lid!
5. Place your wormery in a cool, dark place. You can check on it and make observations every few days
6. You can also add small, compost-able items to your wormery. Things like an apple peel, orange peel, a bit of lettuce stem and watch the worms work!

Why not make something bigger in your own garden

## Frogs and Toads

Both frogs and toads are beneficial to the garden because they feed on many pests such as, bugs, beetles, caterpillars, grasshoppers, grubs, slugs, and a variety of other pests. A single frog can eat over 100 insects in one night. Attracting and keeping frogs and toads in your garden will help moderate pest populations without the need for chemical or natural pesticides

## How to Attract Frogs and Toads to Your Garden

Most toads and frogs are nocturnal and avoid sun to prevent dehydration. They prefer damp, shady areas and need shelter to hide from predators and escape the heat from the daytime sun

## Equipment

- Stones
- Flowerpot (ceramic)
- Shallow containers


What to do

1. Create a shelter by arranging stones into a small cave or turn a flowerpot upside down and prop it up with rocks leaving enough room for the frog or toad to slip inside. Locate your shelter in a quiet area that has a lot of shade
2. Place several shallow containers of water in the shade near the shelter. Rinse the containers out at least once week and fill with fresh water.
3. Toads and frogs do not drink through their mouth. Instead, they absorb moisture into their bodies by sitting in water
4. Take it further by making a small wildlife pond

## Ladybirds

Ladybirds are known as the gardener's friend as they eat pests such as aphids/greenflies

## Ladybird Hotel

They are always looking for a safe space to lay their eggs, and the adults also hibernate over winter. They often use dead stems or old wood

## Equipment

- Pinecones
- String
- Chicken wire
- Scissors



## What to do

1. Cut a length of chicken wire, 50 cm to 80 cm long
2. Make a pile of pinecones in the middle of the chicken wire. It helps to press them together so their scales lock and hold together. Alternatively, you can tie them together with some string
3. Lift up the edges of the chicken wire around the pinecones to make a bag
4. Fold in or cut out the excess chicken wire
5. Tie the top of the bag together with string
6. Hang the hotel in a sheltered spot in the garden or place it on the ground in the flower bed. Make sure it is protected from heavy rain

## Log House

This activity will need adult help/supervision
Equipment

- Small logs
- Rope
what to do

1. Ensure logs are cut in small pieces
2. Ask an adult to drill a hole right though each log from bark to bark
3. Also ask the adult to drill holes into the cut face of the log as shown
4. Thread rope through each log and tie a knot so the log cannot slip down the rope

5. Hang your log house in a tree

## Ladybird House

## Equipment

- 2 litre plastic drinks bottles, plant pots, milk cartons or old cardboard coffee cups
- A piece of plastic pipe e.g. down pipe
- Bamboo canes or rolled newspaper straws
- corrugated cardboard
- Scissors
- Waterprooftape

what to do

1. Cut off the end of a plastic drinks bottle or cut a plastic pipe to 20 cm in length. Or reduce, reuse, and recycle plastic plant pots, milk cartons or old carboard coffee cups.
2. Make newspaper tubes by cutting newspaper lengthways and rolling up. Ensure there is a hole in the centre of around 4 mm . Rolled corrugated cardboard can also be used.
3. Cut the material to the length of the pot or bottle. The bamboo needs to be cut so that the solid node is at the closed end or the whole length is hollow.
4. Fit the materials tightly into the bottle or pot, so they will not fall out. Ensure the hollow ends are facing outwards and will be protected from rain.
5. Place your bug home almost horizontally in a warm spot with the open end slightly lower to prevent water logging. Bug homes are best placed no higher than 1 m above the ground. The best places to put them are in a tree, bush, at the base of a tree and most importantly in a quiet place.

## Lacewings

Lacewings are delicate, bright green insects with almost transparent wings and long antennae. There are 14 different species in Britain. Lacewings and their larvae consume a huge number of aphids, so they are a great help in the garden. Encourage them to visit by creating a place for them to nest. They will reward you by controlling pests - without the need for chemical sprays!

## Lacewing Bottle Hotel

## Equipment

- Plastic bottle
- String
- corrugated cardboard
- Scissors


## what to do

1. Cut the bottom off a large plastic drinks bottle using the scissors
2. Roll up a sheet of corrugated cardboard and slip it inside
3. Tie some string on the bottle
4. Hang the bottle from its neck in a shrub or tree

## Log Pile

A log pile will support a wide range of wildlife, including moss, fungi and insects and other invertebrates. It will also attract a range of small mammals, reptiles, amphibians, and birds that will visit to prey on the insect residents

Equipment


- Logs (from trees being pruned or felled in local gardens or from a tree surgeon
- wood chippings


## What to do

1. Create a log stack by stacking logs of different sizes on top of each other. Stop them rolling away by driving a stake into the ground on both sides
2. Keep the wood damp by burying the lower logs a few centimetres into the soil. You can also water the pile with the hosepipe if it looks dry
3. Create an upright log pile. Stand logs vertically in a pyramid shape, with the tallest ones in the middle. Bury the lower half of the logs, which will keep them damp and help them decompose. If the logs do not rot down relatively quickly, they are too dry
4. Create a mini log pile with one or two logs, part buried or laid on top of the soil

5. If you cannot find a log, make holes in a plastic container, and fill it with a mixture of soil and wood chippings
6. However, you use wood ensure that gaps are present so wildlife can enter or leave to either seek shelter or make a nome.

## Garden Science

## Colour Changing Flowers

Equipment

- White carnations
- Beaker
- Liquid
food colouring

- Water

What to do

1. Trim the stems of the flowers
2. Add water to each beaker along with 10-15 drops of food colouring and mix well
3. Place a flower into each beaker
4. Allow to stand and watch the magic begin!!!!
5. After several hours, the flowers should be changing colour
plants drink water from the ground up through their roots. The water travels up the stem and into the petals of the flower. Although, these flowers do not have roots anymore they are still able to pull water up from the beaker into the stem and up through the flower to the petals. It is through capillary action that plants can defy gravity and pull water up and in to their leaves and flowers.

## Chlorophyll paintings

chlorophyll, the green pigment found in a plant's leaves, is a key ingredient in the process of photosynthesis. It also makes great paint!

## Equipment

- Leaves
- Metal spoon
- White paper


What to do

1. Fold a sheet of white paper in half and place several leaves between the folded paper
2. Press firmly on the leaves between the pages and rub with a metal spoon

Take it further by looking at different types of leaves, which ones provide the most chlorophyll. Does the thickness of the leaf effect how easy it is to extract the chlorophyll? Try spinach or lettuce leaves compared to tree leaves

## Plant Transpiration Experiment

Equipment

- Celery sticks with leaves attached
- water
- Food colouring
- Glassjar


## What to do

1. Add water to a glass and add a few drops of food colouring
2. Mix well and add a stick of celery
3. Leave on a windowsill and watch the colours appear in the leaves

4. Once the leaves have coloured, take the stick out of the water, and cut across the stem with a knife. The vessels should be clearly seen

This experiment shows a process in plants called transpiration. Transpiration is the transportation of water through the plant. The nutrients a plant needs are dissolved in the water. Because the food colouring has small particles they can be transported in the water as well and you can see the progress. The leaves of the plants have small holes on them that are connected to the vessels in the plants. The holes allow water to evaporate out and that forms a suction pressure in the vessels drawing water up through the roots. The holes on the leaf are called Stomata, the vessels that bring the water up through the stem the xylem and the roots draw the water from the soil.

- Small equal sized
- water
containers
- Different types of leaves



## What to do

1. Place each leaf in a container and cover with water and allow to sit for an hour
2. When the leaf is submerged, you can see the oxygen it produces in the form of bubbles clinging to the leaves
3. Some leaves will produce more bubbles than others

Photosynthesis is the process of turning sunlight into energy. Chlorophyll within the chloroplasts of plant absorbs light energy. Chloroplasts store the sun's energy until it can be used. This energy is then used to split hydrogen atoms from oxygen atoms. Plants absorb carbon dioxide and pairs it with hydrogen molecules to make sure. The plant consumes the sugar and releases the oxygen back into the air through the
leaves. You can see this visualised in water because the oxygen gets trapped under the water and makes bubbles.

## Leaf Chromatography

Photosynthesis is the ability to convert light energy from the sun into chemical food energy. This starts with the bright green chlorophyll inside leaves. Plants absorb sunlight, carbon dioxide, water, and minerals to produce the energy needed to grow and this gives us the oxygen in our air.

During spring and summer, you mostly see the blue-green chlorophyll and yellow-green chlorophyll but in autumn as leaves begin to change colour
 (the chlorophyll breaks down as the leaves die), you will be able to see more yellow and orange pigments come through.

Chromatography is the process of separating a mixture by passing it through another medium like the coffee filters. This can be done by making a mixture of leaves and vinegar and using coffee filters to separate the pigment from the mixture. The most soluble substances from the pigments will travel the farthest up a paper filter strip.

## Equipment

- Distilled white vinegar or
- Jamjars
- Scissors
surgical spirit
- Craft sticks
- coffee filters
- Leaves


## what to do

1. Collect different types of leaves and colours
2. Cut or tear the leaves into small pieces and place each colour in a separate jar. If possible, use a rolling pin or stone to grind up the leaves before placing in the jar to help release the pigments
3. Cover the leaves with distilled white vinegar and place the jars in an oven at 200 degrees for an hour. Remove and let cool-adult supervision will be needed
4. Cut the coffee filter into strips and secure one end to a craft stick. Ensure the paper will just touch the liquid in the jar. Place a stick into each jar
5. Allow the liquid to travel the length of the paper and then let it dry
6. Once dry, line the sticks up next to each other and inspect
7. Are the colours the same on each strip? Is there more of one colour than another?

## Equipment

- Pinecones
- Hotwater
- Glass bowls
- cold water

What to do

1. Place a pinecone in water. What happens? It should float
2. Now place hot water in one bowl and cold water in another. Add pinecones
 to each. Watch what happens. Once wet they immediately close up
3. Which closed the quickest? The ones in the cold water should close quicker than the ones in the hot water
4. Remove the cones from the water and watch what happens now
5. The scales of seed-bearing pinecones move in response to changes in humidity. When warm and dry the pinecone opens to release the cone's seeds. When it is damp or cold, the scales close up

## Borax Crystal Flowers

## Equipment

- Borax
- Silk or artificial flowers
- water
- Pencil
- String
- Tape
- containers
- Spoon



## What to do

1. Remove the leaves from the artificial flowers
2. Using string tie, the flower stems to pencils, rest the pencil on top of the container so the flower heads dangle in the container but do not touch the bottom. Use tape to keep the pencil in place
3. Boil the water and place in a container. Carefully add a spoonful of borax and stir so it dissolves. Keep adding Borax until it no longer dissolves
4. Pour this solution into the container where the flowers are suspended and leave to stand for several hours
5. When you have enough crystals on your flower remove from the solution and allow to dry

## Testing for Starch in Fruit and vegetables

## Equipment

- Iodine antiseptic solution
- Fruit and vegetables
- Dropper/pipette

What to do

1. Peel and cut the fruit and vegetables into pieces

2. With the dropper or pipette, drip a small drop of iodine on each sample
3. After you drip the iodine be patient and wait to see if it turns any of the samples a blue or black colour
4. The longer you wait, the more visible the results. If the iodine turns the food blue or black, you have detected starch in the food item
5. Try using cooked fruit and vegetables, rice or pasta and comparing the results

Although we often use the term vegetable to describe a wide variety of food items that come from plants, vegetables are technically only the stems, leaves or roots of a plant. Anything with seeds is actually a fruit! The various plant parts provide different functions for the growing plant. Roots often contain a lot of starch, or stored energy for the plant to grow. Eating starchy food can give our bodies energy too

## How To Keep Apples From Turning Brown

Apples turning brown is like metal rusting - It is a chemical reaction with oxygen and an enzyme in the apples. Try this experiment and see how it can be prevented

## Equipment

- Apples
- Lemon juice
- Containers
- Apple juice
- Water
- milk

- Salt water
what to do

1. Slice the apples and place a slice in each container
2. Add a different liquid to each, enough to cover the apple. Leave one slice uncovered this will be your control
3. Leave the slices in the liquid for at least an hour
4. Which liquid works best to prevent the apples browning
5. Take it further by predicting which substance will work best and compare this with the actual results
6. Try using different varieties of apple e.g. cooking apples, Granny Smith

Lemon juice helps keep the apple from browning, because it is full of ascorbic acid (Vitamin C) and it has a low pH level. Ascorbic acid works because oxygen will react with it before it reacts with the enzymes in the apple. Once the ascorbic acid gets used up, the oxygen will start reacting with the enzymes in the apple and browning will occur.

## Fruit Enzymes Gelatine Experiment

Some fruits contain enzymes which when mixed with gelatine prevent it from setting. Why not try this experiment and find out which ones these are?

## Equipment

- Fruit-strawberries,
satsuma, banana, pineapple, kiwi fruit
- Gelatine
- Water
- containers


## what to do

1. Cut the fruit and add a separate fruit to each container
2. Make up the gelatine and pour into each container
3. Do not add any fruit to one container - this will be the control of gelatine only
4. Place containers in the fridge for several hours to set
5. Make predictions as to what will happen
6. You should find that the control and containers with strawberries, satsuma and banana are still solid. But those with the pineapple and kiwi are liquid

Some fruits such as pineapple and kiwi contain a protein-digesting enzyme called bromelain. Bromelain is used as a meat tenderizer Gelatine is made from animal proteins. When you add water to the gelatine, long chains of protein form. Water gets trapped in the middle of these long chains and turns the liquid into a semi-
 solid. As the enzyme bromelain can digest proteins, it eats away at the gelatine. The protein chains collapse, making everything watery again.

## Sink or Float Oranges

Equipment

- Oranges or satsumas
- Glass beakers
- Water
what to do

1. Fill the beakers with water so they are $3 / 4$ full. Peel one of the oranges
2. Now make some predictions - will the orange with the peel sink? Or float? will the peeled orange sink? Or float?

3. Now add the oranges to the beakers. How do the actual results compare to your predictions?

The unpeeled orange floats because the rind is very porous and filled with tiny pockets of air. Although you are removing mass when you peel the orange, the peeled orange is denser and sinks in the water.

## Soil Erosion Experiment

Try this experiment to show the importance of soil being covered by vegetation

## Equipment

- 6 empty plastic bottles
- $1 \times$ piece of plywood ( 30 cm $\times 30 \mathrm{~cm} \times 2 \mathrm{~cm}$ thick)
- Wood glue
- Scissors and Stanley knife
- String
- Soil from the garden and compost
- 4 Seedlings
- Mulch (bark chips, dead leaves, and sticks)
- water


## what to do

1. Cut a rectangular hole roughly $7 \mathrm{~cm} \times 25 \mathrm{~cm}$ along the sides of three bottles
2. Use the glue to fix these bottles to the wood ensuring the bottle necks protrude
 over its edge
3. Add plain garden soil to the first bottle and a soil and compost mixture to the other two
4. Leave one bottle as it is. cover the top of the second bottles soil with mulch. Plant the seedlings in the third bottle
5. Remove the bottoms from the other three bottles. Make two holes opposite each other at the top of each bottom. Thread string through the holes and knot so to make a handle. Hang each 'bucket' from the neck of a bottle on the wood
6. Slowly pour equal amounts of water into each of the bottles on the wood. Pour the water in at the end furthest from the neck of the bottle
7. Can you predict what will happen?
8. You should find the water in the first bucket is dirty, the water in the second and third buckets will be much cleaner. This shows that both mulch as well as the root structure of plants assist in preventing soil erosion
9. Add water to the bottles for several days or even longer and watch what happens. The soil erodes away in the first container while the plants hold the soil in the last one

## Indoor Gardens

## Sprouting House

## Equipment

- 4 kitchen sponges
- cocktail sticks
- Plate
- Scissors
- Seeds-alfalfa, mustard and cress, mung beans


## What to do

1. Place one sponge on the plate - this will form base of the house
2. cut a second sponge in half to form two walls and hold in place with cocktail sticks
3. Cut a third sponge in half and rest on top of the walls to form the
 roof. Again, hold in place with cocktail sticks
4. Cut the fourth sponge to make a door back and front of the house and hold in place with cocktail sticks
5. Carefully add water to the sponges so they are just damp
6. Sprinkle seeds on the roof and around the base of the house
7. Place your house in a cool but light space, keep the sponges moist but not saturated with water and watch your house grow
8. Use the shoots in salads or as a sandwich filling

## Egg Heads

Equipment

- Egg shell
- Marker pens
- cotton wool
- Cress seed
- wobble eyes
what to do

1. Ensure inside of eggshell is clean
2. Place cotton wool inside the shell and dampen with water
3. Carefully sprinkle cress seeds on top of the cotton wool
4. Glue on the eyes and draw a face with the marker pens
5. Place your egg head on a windowsill and watch its hair grow
6. Ensure the cotton wool is kept moist with water

7. Why not make and enjoy a cress sandwich once the hair is long enough

## Bean Sprouts

Equipment

- mung beans
- Water
- Jam jar or container

What to do

1. Place a tablespoon of beans in a container or jar cover with water and leave to
soak overnight

2. Drain off the water and put the beans back in the container
3. Cover the container with a towel overnight and rinse them the next morning
4. Keep doing this until you notice the sprouts begin to appear and then until they reach the size that you want

- Runner or broad beans
- Jamjar
- Kitchen towel or blotting paper
- Water

What to do

1. Roll a piece of kitchen roll or blotting paper into a cylinder and place into an empty jam jar
2. Insert a bean between the paper and the inside of the jar so it is about halfway in the jar
3. Add some water to the jar and make sure it soaks all the cylinder of paper
4. Place the jar on a windowsill so it gets good light
5. Ensure the paper is kept moist and damp, and jar is turned
6. The seed should split as a shoot and root emerge
7. Once the second set of leaves are visible, the bean plant can be planted in soil


## Onion Tower

## Equipment

- Empty plastic bottle
- Onions
- Soil
- Scissors


## what to do

1. Cut the top off a plastic bottle
2. Use scissors to make holes all round and down the bottle
3. Add soil to the bottle along with the onions, ensure the top of the onion is positioned in line with the holes.
4. Continue until the bottle is full. Water the soil and place on a windowsill
5. As the onions start to sprout, they can be cut as required and used in cooking
6. If wanted the top of the bottle can be taped pack in place
7. The size of bottle used could reflect the size of the onions


## Self-Watering Planters

## Equipment

- Empty 2 litre plastic
- Soil
bottles
- cotton string
- Seeds - oregano, basil, thyme, parsley


## what to do



1. cut empty plastic bottles in half
2. Make holes in the bottle caps - an adult may have to drill these for you
3. Make wicks using the cotton string. Cut the string so that when a knot is tied two inches from one end it will reach the bottom of the bottle. You will need 4-6 pieces of string depending on the thickness
4. Place the wick through the cap - you may find it easier the thread the string and then tie the knot

5. Return the caps to the tops of the bottles, and place the tops of the bottle's upside down on their corresponding bottoms
6. Next, fill each top about $1 / 3$ of the way with soil. Then spread out the strands of the wick across the soil and continuing filling
7. Then, when they are all filled, plant your seeds, and add water to the base
8. Place in bright light, keep topped up with water and watch the seeds grow
9. If you notice that some appear wetter on top then others, or if they seem like they are drawing up too much water, just clip off a couple of strands going down to the water


## New Plants from Food Scraps

## Spring Onions

## Equipment

- Spring onions
- Knife
- Pot or glass beaker


## What to do

1. Cut tops (leave 1 to 2 inches of stalk) from spring onions as shown but leave roots intact
2. Place cut roots into a beaker of water or plant in soil
3. In 3 to 4 weeks the tops will have regrown and can be cut to go in salads or sprinkled on top of food
4. If water is kept clean and changed regularly the onions will continue to grow even after cutting
5. If planting in soil, ensure this is kept watered


- Celery
- cocktail sticks
- Knife
- water
- Bowl


## what to do

1. Slice about 2 inches off the root end of a bunch of celery
2. Insert 4 cocktail sticks evenly spaced around the celery, about $11 / 2$ inches from the bottom
3. Place the celery in a shallow bowl and fill with enough water to cover an inch of the root
4. Put the bowl on a windowsill where it will get good light but not too much heat

5. Change the water every couple of days, making sure the celery root end is always covered
6. After several days small leaves will emerge from the top of the celery
7. Within a week, tiny roots will emerge from the base and the stalk will grow
8. It can either be cut at this stage and added to casseroles etc or replanted in soil as the outer stalks will rot if kept in water for too long
9. When the new roots are about an inch long, you can plant the celery in potting compost or directly into your garden

## Potatoes

## Equipment

- Potatoes
- Pots
- Soil


## What to do

1. Either use potatoes that have started to sprout or try this method
2. Use potato peelings that have eyes on them
3. Cut those peelings into two-inch pieces, ensuring that there are at least two or three eyes on each piece
4. Allow them to dry out overnight and then plant them about four inches deep in pots of soil
5. Make sure that the eyes are facing up when planting
6. It will take a few weeks before you see the potato plant begin to grow

## Garlic

## Equipment

- Garlic
- Soil
- Pot



## What to do

1. Garlic comes as a bulb made up of several cloves. When used in cooking normally only one clove is used at a time. Often you are left with one or two cloves and these can be used to grow new plants
2. Plant a clove in a pot of soil. Keep watered in direct sunlight
3. Once you notice that new shoots have established, cut the shoots back and your plant will produce a bulb
4. You can take part of this new bulb and plant again

## Ginger

## Equipment

- Ginger
- Pot
- Soil


## What to do

1. Often you can be left with a piece of ginger root as it is never all used in cooking
2. Plant in soil with buds facing upwards
3. When new shoots and roots appear, it can be pulled up and used with the process repeated. Or allowed to grow into a full-sized plant for its foliage

- Carrot
- Soil
- Saucer
- Water
- Pot


## What to do

1. Cut off a carrot top just below where the leaves grow

2. Sit it in a shallow sancer of water or push it gently into the surface of a small pot of damp soil
3. Ferny leaves will soon appear, and eventually small white flowers

Try growing the tops of parsnips, turnips, or swede

## Tomatoes

## Equipment

- Tomato
- Soil
- Pot


## what to do

1. Take some seeds from tomatoes, rinse in water and allow them to dry
2. Plant in potting compost in a seed tray or pot, prick out seedlings once second
 leaf has developed and move to a bigger pot
3. Plant outside if wanted once a few inches high. Ensure plant has enough light and keep well-watered
4. If wanted, you could put a slice of tomato directly into a pot, cover with soil and prick out seedlings once they start to grow

## Peppers

Equipment

- Pepper
- Pot
- Soil


## What to do

1. Cut pepper in half and remove the seeds

2. They can be planted in potting compost as a large clump and will need to be pricked out and transplanted to individual pots latter

3. Or place individual seeds into individual seed trays and moved to larger pots once the
second set of leaves appear
4. Ensure compost is kept damp and pot is in good light to allow seeds to germinate

## Pineapple

Equipment

## - Pineapple

- Glassjar
- Water


## What to do

1. Twist the pineapple top off the fruit, then peel off about 4 rows of the lower leaves to expose
 the stem. Let it dry and cure for $3-5$ days
2. Put the pineapple top in a jar containing water and watch the roots grow, change the water regularly
3. Pot the pineapple in soil once roots have grown. If you are lucky in 2 years your plant may fruit if given lots of sun and heat

## Strawberries

## Equipment

- Strawberries
- Soil
- Pots


## what to do

1. Carefully cut the outer skin (containing the seeds) off the berry, or extract seeds using tweezers.
2. Place the skin or seeds in a container with soil, cover with soil, place in a sunny spot and water regularly until shoots emerge.

3. Transplant the shoots to a strawberry pot or outside garden in springtime

## Melons

## Equipment

- Melon
- Pot
- Soil

What to do

1. Take the seeds from the melon and separate from any membrane
2. Plant seeds in a pot of soil, water and keep on a windowsill
3. Once seeds have germinated, they can be moved to a larger pot and
 allowed to grow on if required before planting in the garden if required
4. Be aware that melon plants require lots of sun and need to be kept well-watered if they are to produce fruit

## Kiwi Fruit

## Equipment

- Kiwi fruit
- Water
- Paper towel
- Pot
- Plastic bag
- Soil

What to do

1. Take the seeds out from the fruit and separate the sticky membrane from the seeds
2. wash the seeds carefully and place on damp kitchen towel and put this in a plastic bag

3. Place the bag somewhere warm, ensure the towel is kept moist and check daily to see if seeds have sprouted
4. Once seeds have sprouted, plant several seeds in a small pot and allow to grow bigger before transplanting to a larger pot

## Herbs

Herbs can be easily grown indoors from seeds or cuttings for an easy to access source to use in cooking

## seeds

## Equipment

- Seeds
- Soil
- Pots

what to do
Place soil into pots

2. Sprinkle on some seeds and cover with soil
3. Either place in a plastic bag or use an empty plastic bottle to act as a greenhouse
4. water and place on a windowsill
5. Within weeks plants should be growing and will need to be transplanted into their own pots

## cuttings

- Plants
- Soil
- Water
- Pots
- container


## What to do

1. Most herbs can be treated in same way
2. Mint - Take a tip cutting from the top $5-6$ inches of mint stalk and place it in a container of water. Once the roots are over an inch tall, just transplant it into a pot of soil
3. Dill - Take a stem cutting about 4-6 inches tall just below a le af node. Remove the lower leaves from $2 / 3$ of the stem keeping the
 topmost ones. Submerge in a container of water keeping the top leaves exposed to air and sunlight. As the root appears simply transplant it into a pot of soil
4. Rosemary - Take a stem cutting and remove the lower leaves. Place in a container of water till the roots appear and then transplant it into a pot of soil

## Tiered Pots Herb Garden

## Equipment

- Herb plants
- Soil
- Pots of different sizes


## what to do

1. Put soil in each of the pots
2. Place herb plants around the outside of all pots, except the smallest where you can plant in the centre of the pot
3. Stack the pots as shown to form a tower. Keep watered
4. Use herbs in your dishes to add flavour

5. This is a good way to grow herbs when space is limited

## Clothes Peg Herb Planters

Equipment

- Clothes pegs
- Paint or stain if required
- Tuna can
- Herbs in pots


## What to do

1. Paint or stain the pegs if required and allow to dry
2. Ensure tuna can is well washed and no longer smells of fish
3. Paint the can if required and allow to dry
4. To assemble just clip the pegs onto the can as shown

5. Ensure the edges of the pegs are touching each other on the inside of the can. That makes them nice and evenly spaced on the outside
6. Stand a pot of herbs inside the planter
7. Remember to water and cut as required to use in cooking
8. Why not make several planters for different herbs


## Potato Head

## Equipment

- Large potato
- Marker pen
- Cotton wool or soil
- Glue
- Wobble eyes
- Spoon and knife
- Cress seed or grass seed

What to do

1. Cut a slice off both ends of the potato so that it can stand up by itself and has a flat top
2. Scoop a hollow into the top of the potato using a spoon
3. Fill the hollow with cotton wool or soil and water well
4. Cover the surface of the soil or cotton wool with cress seed or grass seed
5. Stick on eyes and draw a face
6. Put your potato on a windowsill and keep the seeds well-watered. You should see growth within a week and once the shoots appear, they will grow quickly


## Grass Head 1

Equipment

- Small pot
- compost or soil
- Grass seeds
- Wobble eyes
- pompom
- Wool
- Glue
- Marker


What to do

1. Glue the wobble eyes, pompom and wool onto the side of the pot to create a face. Use a marker to add extra details such as eyebrows, eyelashes or a moustache-be creative!
2. Allow to dry than fill it three quarters of the way with compost
3. Sprinkle grass seeds generously on top and cover the seeds with a thin layer of soil
4. Water the seeds and keep the soil moist until the grass begins to sprout
5. Water the grass regularly to create a thick head of hair for your grass head
6. Now for the best part-cut, style, and accessorize your grass head's hair however you please!

## Equipment

- Tights/knee highs
- Small yoghurt pot
- Paper
- Grass seed
- wobble eyes
- Felt
- Sawdust or soil
- Pipe cleaners
- Glue


## what to do

1. Cut off an $8^{\prime \prime}(20 \mathrm{~cm})$ section of tights that includes the toe
2. Stretch the stocking over a large cup or mug, and spoon in about 2 teaspoons full of grass seeds
3. Pack in some sawdust or potting soil. Aim for the head to be roughly tennis ball sized
4. Tie a knot to close the end. No need to cut off the dangly bit
5. Make a bulbous nose or ears by grabbing a bit of stocking and twisting. Fasten base of the nose with some thread or a small rubber band
6. Use fabric scraps or permanent marker to decorate the face, and coloured paper to make the yoghurt container into a dress or a suit or whatever you like - get creative!
7. When you're ready to grow your head, give it a good dunking in a bowl of water to moisten the sawdust/soil. Half-fill the yoghurt container with water, and put the head on top, with the excess stocking dangling down into the water
8. Put your creation on a windowsill or somewhere with plenty of sullight. Check every day to make sure the head is moist - you might need to dribble a few drops of water onto the head now and then
9. "Hair" takes about 1 week to sprout. A full head of hair takes 3-4 weeks to grow, and "greying and balding" will occur after about 6 weeks. Experiment with different hairstyles you can make mohawks, ponytails, crew-cuts... have fun with it!

## Grass Caterpillar

## Equipment

- Old tights
- Grass seed - rye grass
- Sawdust or soil/compost
- Rubber bands
- wobble eyes
- Pipe cleaners
- Mini pompoms
- cocktail stick
- Glue
- Bucket
- Tray
- Black Sack


## What to do

1. Mix grass seed with sawdust or compost in a bucket
2. Cut the legs off the tights. Fill one leg with the seed/compost mixture and
 tie a knot at the end
3. Use the rubber bands to divide the tight leg into sections - to make the caterpillar's body
4. Soak the caterpillar in a bucket or tub of water for 10 minutes. Remove and place on a large tray. cover the caterpillar and the tray in the black sack overnight
5. Remove from the black sack and place in a sunny outdoor position. Water it daily and within 7-10 days your cute little caterpillar will start to sprout hair
6. Once grass starts sprouting you can add your eyes, legs, and antennae.
7. To make the eyes, glue wobble eyes to cocktail sticks and poke into the unknotted end of the caterpillar
8. Twist two pipe cleaners together to make a stalk for an antenna. Glue a pompom to one end and poke the other end into the caterpillar near the eyes. Make 2 antennas
9. cut 4 pipe-cleaners in half and bend them to make legs. Insert along the caterpillar's body
10. Trim your grass with scissors to give your caterpillar a cool hair cut!
11. Water regularly so it does not dry out and wilt

## Garden Games

## Blindfold Fly

 a Bluebottle. When the blindfolded girl catches one of the flies, they must guess the name of the captured fly.

## Keep the Flies Off the Table

You will need: balloons with fly faces drawn on them, blankets
Scatter blankets on the floor (these ae the tables)
Girls are scattered around the hall but must not step on the tables
The flies are let loose and the girls must keep them off the tables, not allowing them to settle amongst the tables for fear of catching the germs!

## Dead Ant

Girls run around until leader calls, "Dead Ant".
Everyone then lies on their back and holds up their arms and legs in the air
Leader calls, "Busy Ants" and all get up and race around

## Insect Relay Race

You will need: pictures of insects

Divide the girls into two teams. At the start of the game, discuss how various insects move differently depending on their body shape, wings and feet.
show the girls the pictures and talk about how each insect moves and demonstrate.

Grasshoppers (make short hops)
Flea (makes long jumps)
cockroach (scurries quickly)
Bee (flies vigorously)
Caterpillar (crawls slowly)
Butterflies (flies with graceful wings)
Ant (runs on all fours quickly)

Girls will run to the pile of pictures, pick up the top card and return to their team by moving like the insect on the card Whichever team has all their member sitting down first wins.

## Ladybirds and Greenflies

Need: Scraps of card and a container for each child
Divide the girls into two teams, the Ladybirds and the Greenflies. The Greenflies are each given a container full of scraps of card. The Greenflies run around the room and scatter the card all over the floor. Then they sit in one corner. Each member of the Ladybird team is given a container. On go the Ladybird team must pick up all the cards as fast as they can while the Greenflies count 123 etc. They stop counting when all the cards are picked up and that is the score for the Ladybird team. Then the teams change places and see how quickly the other team can pick up the card. The team with the lowest score is the winner.

## Snail race

The aim is to be the last over the finishing line. Designate the finish a short distance away or the game could go on all evening!
Everyone must keep moving, however slightly. Anyone who actually stops must take one giant step forward before

## Centipede Race

Divide girls into equal size teams of 3 or more
Each team lines up in front of each other in a line.
Place a chair at the other end of hall in front of each team.
Teams become centipedes by putting their hands on the waist of the person in front
On the start signal, the centipedes must make their way down the hall, round the chair and back again.
First back to start is the winner.

Girls could kneel on hands and knees and hold ankles of girl in frout
They then must shuffle to the end of the room without letting go.

## Squirmy Worm Race

Divide girls into equal size teams of 3 or more
Each team lines up in front of each other in a line.
place a chair at the other end of hall in front of each team.
Teams become squirmy worms by putting their left hand through their legs and grabbing the right hand of the girl behind them.
On the start signal, the worms must make their way down the hall, round the chair and back again.
First back to start is the winner.

## Snail, Snail

Girls stand in a large circle, holding hands. The leader drops her left hand so that the person to the left will be the "tail" of the group.
Start singing the song below and walking around in a circle (everyone holding hands and following the leader).

Snail, snail, come out and be fed.
First your feelers, then your head.
Then your mama and your papa
will feed you fried mutton (or muffins)

Progressively make the circle smaller and smaller so you are spiralling inwards.
When you cannot go any further, the leader takes the two girls behind her and makes them into a "bridge" (with their arms over their heads and hands touching).
The leader joins her hand to the next girl in line then leads everyone through the bridge and back out through the spiral until you have a large circle again.
As the last girl passes through the bridge, the girls who formed the bridge join the end of the line.

## Spiders web

All girls sit in a circle. One girl walks round the outside and taps each girl on the shoulder saying "web". When she says, "Fly" the one she taps chases her round the circle and back to her place. If caught she becomes the spider.

## Miss muffet and The Spider

One girl is chosen to be Miss muffet. She sits in the centre on a low chair while the other girls stand in a circle around her. Miss muffet covers her eyes and another girl is chosen to be the spider. The spider creeps up towards Miss muffet. When miss muffet hears the spider, she chases her away. If she can catch her before she reaches her place in the circle, she must become the new miss muffet and she joins the circle but if she cannot catch her, she must return to her bench and try to catch the next spider.

## Four Little Bugs

One little bug went out to play,
On a spider's web one day.
He had ever so much fun,
He called for another bug to come.
Two little bugs went out to play,
On a spider's web one day.
They had ever so much fun,
They called for another bug to come.
Three little bugs went out to play,
On a spider's web one day.
They had ever so much fun,
They called for another bug to come.
Four little bugs went out to play,
On a spider's web one day.
They got stuck, all in a bunch.
And along came spider, in time for lunch!

Let a small group of girl's act out this rhyme.
Have one girl start and call in a friend at the appropriate time.
When all four girls are crawling around the web, choose
A fifth girl to be the spider, who crawls in and eats them up.

## Spider, Spider

Everyone is numbered and sits on chairs facing outwards. When the Leader gives a command, everyone moves round the outside of the circle as directed.
crab spider - scuttle sidewards
Zebra spider - jump
Wolf spider - run
They return to their place when "Spiders web" is called.

## Spider Web 1

During this activity, each person will tell her name and share something special about herself. Give the girls a moment to think about what they wish to say. The leader, holding a ball of yarn, begins by stating her name and something special about herself; e.g., "My name is Sue and I like to sing." Then while holding onto the end of the yarn, she rolls the ball to another person in the circle. After that person gives their name and something special about themselves, they hold the yarn while rolling the ball to another. Continue until everyone has been introduced and a spider web is created. To unravel the web, the last girl tosses the ball of yarn to the connecting person while saying that person's name and special quality. Continue until the web is unwound.

## Spider's web 2

Indicate spider's web (length of wool) in an area big enough for all girls to squeeze into. For every five girls choose a SPIDER. SPIDERS chase flies and if caught, they go into the web and can be freed when another fly claps the hands of the caught fly three times while counting out aloud (When doing this they cannot be caught).

## The Gardner Says

Like Simon Says but can only do something if 'The Gardner' says

## Busy Bees

Girls choose a partner and hold hands. They follow Leaders directions e.g. jump up and down, skip around the hall, run back to back, piggyback to the end of the hall, change over and piggyback, leap the frog; when BUSY BEES is called they run around and find another partner.

## Two Bees or Not Two Bees

This game is played similar to "Red Light, Green Light."
Ask the girls to stand about 30 feet away from you.
When you say "two bees" the girls should take 2 big steps towards you.
When you say "not two bees" the girls should take 2 big steps back.
continue mixing up "two bees" or "not two bees" until one girl has reached you first and wins!
you should say the words really fast. Anyone who moves in the wrong direction or runs is out! If you like, the winning girl can call out the words in the next round.

## Busy, Busy Bee

Busy, Busy bee
Buzzing round the apple tree
Busy, busy bee
Bust, busy bee
Stay away and don't sting me!
Buzzzzzz, Ouch!

Girls in circle holding hands, everyone lifts up arms to make a big tree.
One girl chosen as the busy bee.
While everyone sings the song, busy bee goes in and out the circle tree or around the out side of the circle.
When the song says "buzzzz, ouch" busy bee stops and stings (tags) the girl they nearest to. They then become the new bee.
Keep playing the game until everyone has been busy bee.

## Don't Wake the Bumblebee

one girl chosen as the bumble bee
Leader crouches down and hides face, pretending to be asleep.
Girls tiptoe around you asking
"Bumblebee, are you sleeping?"
Answer "yes" several times, then catch girls off guard and say, "no."
After saying, "no" leader jump up and chase the girls until you catch one who will be the next bumblebee.

## Caterpillar Crawl 1

Leader calls out instructions and players respond to commands for example: Caterpillars crawl

Butterflies the players fly around the room arms out,
pupate (to become a chrysalis) stop and curl up in a ball on floor and stay perfectly still.

## Egg, caterpillars and butterflies

Girls run around and do action when Leader calls out:

Eggs curl up in ball on ground
Caterpillars crawl round the room
Butterflies pretend to fly around the room
Game can be adapted so the last two girls to do the action are out

## Caterpillar Relay

Divide girls into teams and each team forms a line with the girl holding onto the waist of the girl in front of her. They may stretch out as far as possible so long as they do not separate. When the whistle blows, the girl at the back goes down on her hands and knees and must crawl through the legs of the whole team. When she gets to the front she jumps up, her waist gets grabbed, and the girl who is now at the back goes through. You can either do this down to the finish line or down and back (by reaching the turning point and having all girls spin around so they are facing back the way they came).

## Caterpillar Crawl 2

Girls split into two teams and work in relay - half each end of the hall.
The first person in each team crawls down to the other half of their team where the first person of that half holds onto their feet and the two crawl back.
The first person of each halfjoins on the back of the line and everyone crawls together as one long caterpillar.
Once the whole caterpillar is at the end, they are the winner! - use a giant leaf as the reward and the first caterpillar to reach it and hold it up wins.

## Balance the Moth

Girls in teams each with a bean bag (the moth)
The first girl in each team places the moth on her head and walks/runs to the end of the hall and back moth passed to next girl who repeats.

## Caterpillar In The Garden

Divide girls into two teams.
Girls line up in two columns, one girl behind the other, at the start line.
Have each girl put their hands on the waist of the girl in front of them, forming a "caterpillar."
When you say, "wiggle!" each team must run, staying connected, to the finish line.
If a team becomes disconnected, they must stop and reconnect before continuing.
The first team to the finish line wins

## Owl Family

Girls divided into groups of three to become an owl family. Baby owl holds a plastic cup to represent her stomach, while the parent owls have broken plastic forks for their claws. Coloured macaroni is spread on the floor. On a signal the parents collect food their baby owl, it will be difficult with a broken fork. After a suitable time see who has the most food.

## Quack, Quack

One girl chosen as the catcher - fox and is blindfolded, they must try and catch the other girls - ducks. When caught the duck has to quack loudly. If the fox guesses correctly who she has caught they change places. Otherwise the duck goes free.

## Bird Calls

If possible, play some bird music when this stops the Leader calls out different kinds of birds and girls do appropriate action for each:

| Starlings |  | walk |
| :--- | :--- | :--- |
| Ducks |  | waddle |
| Robins | hop |  |
| Hawks | hover |  |

Girls could also obey the following commands and make the appropriate sound:
pigeons coo
Owls hoot
canaries twill

## Pass the Bird's Egg

Girls in two teams each with a ball (the egg)
Players are lined up behind each other with a space between.
on "Go", they pass the egg with both hands, between the legs; the next player passes it over their head to the next player who passes it between their legs.
When last player has the egg, they run up to the front holding the egg in both hands (all move back a pace) and the egg is then passed down the line as before.

## Rob The Nest

You will need: nine paper balls
Girls in four teams each allocated a corner where a chalk circle is drawn, or area marked out with masking tape to represent the nest. Paper balls placed in centre
One girl from each team runs to the centre to get one ball at a time to place in their nest. When there are no more balls in the centre, they must rob the other nests
The rest of the team can shout instructions, but cannot interfere with proceedings
After a time limit, all stop and count the loot. Then the next set can have a go.

## Flower Game

One flower shape per girl (about the size of a sancer), one bee shape (smaller than the flowers)

Leaders lay the flowers on the floor and hide the bee under one of them (do not let the girls see which one).

Girls stand in a circle round the flowers, they then hold hands and move round in the circle saying:
"Buzzy, buzzy, buzzy bee Buzz if you like but don't sting me"
Then each girl picks up a flower - the one with the bee underneath is stung. Who can avoid being stung?

## Flower Baskets (Hanakjo) from Japan

Girls sit on the floor in a circle and one stands in the middle of the circle. Everybody chooses the name of a flower, which the Leader writes down. When the Leader calls the names of two flowers those girls must change places. The girl in the middle tries to sit in one of the places. The girl left than goes in the middle.

## Flower Bonquet

A bunch of wild or garden flowers in a vase.

Leader first holds up the flowers one by one and the girls must name them. When they are all named the girls cover their eyes and the Leader removes one flower from the vase. The girl who first spots which flower is missing from the bunch, wins the flower and may take it home. Repeat until the vase is empty.

## We Can Make a Daisy Chain

All the girls stand in a circle and one girl is chosen to start. She goes in and out between the girls while they sing to the tune "Here we go round the mulberry bush"
"We can make a daisy chain, a daisy chain, a daisy chain
we can make a daisy chain, a daisy chain for you."

Whoever she is beside, when they stop signing, joins hands with her and together they start going in and out the circle again.
The song is sung again, and another girl joins the chain and so on until everyone is in the chain.

## Flowers in the wind

Girls stand in two groups facing each other - one is the wind and other the flowers. Flowers decide on the name of a flower e.g. Daisy and stand in front of wind
The wind What is the first letter
The flowers $D$
Girls who are the wind say
The wind is going to blow! 1, 2, 3, Daffodil or Dandelion or whatever they think
The flowers say No
If right flower is guessed, flowers must run home. Those caught join the wind. No one can run until correct flower is guessed

## Daisy to Daisy

Each girl should choose a partner and introduce themselves. The leader yells out
"elbow to knee" or whichever appropriate two body parts they choose. This would mean that one girl would put their elbow on their partner's knee. Then the leader may say "thumb to head." While still holding "elbow to knee" one girl must place their thumb to the other's head. The leader continues to call out various instructions.
Whenever the leader wishes, they may say "Daisy to Daisy." This means that everyone finds a new parther and introduces themselves. Whoever is left without a partner is the new speaker and can begin yelling out new directions. If needed there may be one group of three.

## Bunches of?

Leaders call out categories and the girls must make "bunches" with other girls who have the same interest. For example, the Leader might say "make bunches of favourite colours," then the girls would walk around and stand with other girls who like the same colour as them.
Once everyone has found their group (and it is great if one or two are in a single person group), get each group to share who they are (in this example they would tell what their favourite colour is).
other categories might include favourite animal, school they attend, favourite pizza toppings, hair colour, birthday month, age, etc.

## Garden Game

Leader names the rooms as follow:
one end - grass
other end - path
centre - flower beds

Girls do the following actions when Leader calls out:
Keep off grass - run to path
Mow the lawn - run to grass
water the flowerbeds - act out in the centre
Pull out weeds in flowerbeds - act out
Dig up flowerbeds - act out
If girls do the wrong action or go to the wrong place, they are out

## Tossed Salad

The players stand in a large circle. Each player is given the name of one of four salad ingredients. When the Leader calls out the ingredients the players of that name change places. When she calls 'Tossed Salad' everyone changes places. When she calls 'Salad dressing' nobody moves. If anyone moves, she has to hold her hand behind her back for the rest of the game.

## Secret Garden

A giant has a beautiful garden of trees and bushes but never allowed anyone to play in it. However, your friends found a way in, but if seen you can be turned into stone unless hiding behind a bush
Trees (chairs with coats over the back one for each girl) are scattered around room. Girls run and hide behind tree while leader-giant turns back and counts to twenty. She claps hands and turns around. Anyone visible is named and turned to stone and must sit on chair. The time of counting is reduced by two each time. Last girl becomes new giant

## come in to our Garden

Girls dance about chanting
"come into our garden and what shall we see?"
The Leader might reply "A giant sunflower for you and me"
Girls then make the shape of, or pretend to be, what the Leader has mentioned.

Could say - A buzzing bee, A watering can, A tiny snail

If the girls form groups of two or three, the Leader could suggest larger items like a garden shed, climbing frame.

## The Bean Game

Girls spread out around the hall, Leader calls a type of bean and the girls do the action. The last person to do the action is "out"

Jumping bean - jump up and down
Runner bean - run around
String bean - stretch and make yourself thin
Broad bean - stretch and make yourself take up as much room as possible
Baked bean - lie down and sunbathe on back
French bean - Say ooh la la and wiggle hands
Jelly bean - wobble body
Chilli bean - shiver
Frozen bean - freeze on the spot
Kidney bean - hold your kidneys
mr Bean - Walk around with a puzzled expression
Bean sprouts - stand on tiptoes and make yourself as tall and thin as possible
Black-eyed beans - stand on the spot with one hand over one eye
Baked beans on toast - lie flat on the floor, spreading arms and legs out as far as possible
Baby bean - lie on the floor curled up in a ball
Beany baby - walk around the room, crying like a baby
Bean pie - all run together to form a group
coffee beans - cough
Butter beans - slide around on bottom
Human beans - run on the spot
Santa's been - walk about saying Ho, Ho, Ho
Full of beans - dance around
Where have you been - peer into the distance
microwave beans - Children run around, touching the floor, and jump up (with a PING!) into a star shape
mean bean - Stomp around the floor looking mean and moody
Toothbrush bean - walk around the room, pretending to brush your teeth
Laughing bean - Children walk around the room laughing
crying bean - Children walk around the room crying
Sad bean - Children walk around the room pretending to be sad
Happy bean - Children walk around the room pretending to be happy

## Fruit Salad

Girls sit on chairs in a circle facing outwards
Each girl is given the name of a fruit or other themed object (4 names)
When their fruit is called, girls must run around circle clockwise and back to their seat. Last person back is out If you shout "Juice" the girls who are running must change direction
If you shout "Fruit Salad" all girls must run

## Someone is stealing my lovely green apples

To get started: everyone stands in a circle. One girl walks outside saying "Someone's stealing my apples, my lovely green apples." She continues by describing someone in the circle. When that person realised it's her, she says "Is it me?" If the answer is yes, she jumps up leaving a space and chases the first person. Both girls' race around the circle to get to the space and sit down
The person without a seat continues the game "Someone....etc".

## Granny's Garden

Girls hold hands in a circle. One girl stands in the middle - she is the Granny. Everyone dances round the circle singing.
Granny went in the garden
The garden, the garden
Granny went in the garden
And what did Granny see?

Granny calls out the name of something that can be found in a garden. Girls act like the thing that is mentioned. Granny chooses the best actress, who then goes in the middle and becomes the new Granny.

## Fishponds

Girls divided into two teams. A circle - the fishpond around 4 feet in diameter is drawn or marked on the ground in front of each team and card fish added. Girls stand several feet away and must throw bean bag overarm at the pond. If it lands the in pond, they can take out a fish. Continue until all fish collected.

## Tadpole Family

Girls form groups of three, two make an arch these are mummy and daddy frog the third crouches beneath the arch and known as the tadpole.
Girls form a circle which has a beanbag in the centre. The leader calls mummy frog, daddy frog or tadpole and the corresponding girl runs round the outside of the circle and back through the arch. The first to grab the beanbag scores a point for her "family". The tadpole must form the arch if either mummy or daddy frog is called. After a while see which family has the most points before the girls find new partners

## Hot Potato

Everyone stands in a circle and start to pass the potato (ball) to the person next to them in the circle (getting faster and more spaced out). If someone drops the ball - they need to pick it up, pass it to the next person, and then run around the circle and get back in time to catch ball, while the ball is still being passed around. If the ball gets back around before they get back, they need to turn outwards. If they don't succeed again, they are out.

## Hedge,hedge, hog (like duck,duck, goose)

Girls sit in a circle. One girl walks round the circle and touches each girl on the shoulder and says "hedge" until she decides to say "hog". The girl that is the hog jumps up and both run round the circle. The last person back becomes the new caller.

## Hedgehog game

The leader shouts hibernate, and the girls must curl up like hedgehogs with their eyes closed and hands over their eyes. The leader covers one hedgehog with a blanket. When the leader shouts "wakey, wakey" all the girls get up and must guess who is still hibernating. For fun cover some bags with the blanket and see how long it takes the girls to guess who is hibernating.

## Rainbow to Scarecrow!

You will need: bag of clothes (hat, scarf, top, skirt \& gloves) and dice for each team. split the girls into teams. Each team is given a dice and bag of clothes
Each team chooses a 'scarecrow'.
Girls take it in turns to roll the dice.
Need a 6 to start. Then each throw the dice to dress the scarecrow.

5 = skirt
$4=t o p$
3 = scarf
2 = glove (need this twice!)
1 =hat
First team to fully dress their scarecrow wins.

## Scarecrow Sam

Equipment: Two or more jackets/cardigans with buttons or zips.
choose two girls to be "Sam". They must put on the jacketlcardigan and button or zip it up properly. The rest of the girls go to the other end of the room. While singing the following song to the tune of Pop the weasel

## Scarecrow Sam stands out in the sun

Scarecrow Sam stands so still
waiting for us all to shout
catch us if you can Sam.,

The girls walk towards the "Scarecrows". When they get to "Catch us if you can Sam" they run back, while the Scarecrows try to catch them. The first two girls caught become the Scarecrows and must put on the jackets or cardigans. Repeat
until all get a turn
(For big groups have more Scarecrows).

## 'Snakes And Worms' In The Garden

cut two colours of wool, each about 20 feet long. (If you have a large group playing at the same time-you may need 3 colours of wool and cut the pieces longer)
Next cut the long length into many pieces.
Hide the pieces of yarn outside.
When time to play, carefully explain rules and regulations to girls.
Form two teams each with a captain.
They will tie each wool piece that is brought to them, to the next wool piece.
The team with the longest finished wool string wins!

## Harvest Dash

Fill large containers with SUNFLOWER SEED bird feed. Have smaller, clear containers at the opposite end. Best played outside

Girls fill up a cup with seed and race to dump it into the empty container. They sprint back to the start and hand-off the cup to the teammates. Goal of the race is to be the first team to fill up the small container with the seeds.
As an extra challenge, give the girls an over-sized soup ladle instead of a cup. Do not worry if the seeds spill; that's part of the fun! The birds will easily find them later.

## Garden Songs

## Feed the Birds tune Row Row Row your Boat

Feed, feed, feed the birds
In the wintertime.
When the days are dark and cold,
Food is hard to find.

Feed, feed, feed the birds
Till the spring has come.
scatter birdseed on the snow.
Feeding birds is fun!

## Bird Song... To tune of "Here we go round the Mulberry Bush"

This is the way we scratch for worms, scratch for worms, scratch for worms.
This is the way we scratch for worms so early in the morning.

This is the way we peck our food, peck our food, peck our food. This is the way we peck our food so early in the morning.

This is the way we sit on our eggs, sit on our eggs, sit on our eggs.
This is the way we sit on our eggs so early in the morning.

This is the way we flap our wings, flap our wings, flap our wings.
This is the way we flap our wings so early in the morning.

This is the way we fly away, fly away, fly away.
This is the way we fly away so early in the morning

## Five Baby Robins

Five baby robins watch Daddy Robin soar
One baby leaves the nest and now there are four
Four baby robins, high up in a tree
One flies to catch a worm and now there are three
Three baby robins had nothing to do
One tried his new found wings and then there were two
Two baby robins frolicked in the sun
Another robin chased a bug and then there was one
One baby robin left all alone
And this baby robin decided to stay home!

Bugs

## tune Frere Jacques

Big bugs, small bugs, big bugs, small bugs,
see them crawl on the wall?
creepy, creepy, crawling, never, never falling.
Bug, bugs, bugs, bugs, bugs, bugs.

The Bird with the Funny Name
Early in the morning Early in the morning

When I was half asleep When I was half asleep

I heard a little chirping
I heard a little chirping

I heard a little cheep
I heard a little cheep

There was a little birdy
There was a little birdy

With a very funny name With a very funny name

It was an eine-a-klien-a-fingle-fangle-ekina-bokina-jingle-jangle-eagle-spitting-banana-eating bird - your turn!

This is a repeat after me song leader sings a line and repeat back

We're Going on a Bug Hunt
we're going on a bug hunt!
we're going to catch some big ones.
What a sunny day!
Are you ready? OK!
Oh my! A bee!
A black \& yellow bee,
Flying over the flowers.
BUZZ.....

We're going on a bug hunt!
we're going to catch some big ones.
What a sunny day!
Are you ready? OK!
Oh, my! An ant!
A tiny, black ant,
crawling through the grass.
Shh...

We're going on a bug hunt!
we're going to catch some big ones.
What a sunny day!
Are you ready? OK!
tune we're going on a bear hunt
Oh, my! A grasshopper! A big, green grasshopper, Hopping around the tree. Boing, boing...

We're going on a bug hunt! we're going to catch some big ones. What a sunny day! Are you ready? OK! Oh, my! A butterfly! A pretty, orange butterfly, Floating in the sky. whoosh, whoosh...

We're going on bug hunt! we're going to catch some big ones. what a sunny day! Are you ready? OK! Oh my! A spider! A big black spider, creeping on the tree. creep, creep...

## Insect Song tune The wheels on the Bus

The firefly at night goes blink blink blink
Blink blink blink blink blink blink
The firefly at night goes blink blink blink
All around the town

The bees in the flowers go buzz buzz buzz....
The ants in the grass go march march march...
The crickets in the leaves go chirp chirp chirp...
The caterpillar in the field goes creep creep creep....

## Five Little Ladybugs

Five little Ladybugs climbing up a door One Flew away then there were four Four Little ladybugs sitting on a tree One flew away then there were three Three little ladybugs landed on a shoe One flew away and then there were two Two little ladybugs looking for some fun One flew away and then there was one One little ladybug sitting in the sun
she flew away and then there were none

## There Ain't No Flies On US

Actions:
"us" = point to self
"you guys" = point to o ther team
There ain't no flies on us.
There are no flies on us.
There might be flies on some of you guys,
But there ain't no flies on us.

The girls are divided in two teams. One team sings it at a whisper, the other team responds by singing it a bit louder, and it gets louder each time until each team is screaming at the other.

## Ants Go Marching

to: "when John Comes Marching Home"

The ants came marching two by two, Hurrah! Hurrah!
(girls walk in pairs of 2 side by side each other in a circle)
The ants came marching two by two
The little one stopped to tie his shoe.
They all go marching down around the town.
Boom, Boom, Boom.

Other verses:
The auts came marching three by three...
The little one stopped to climb a tree.
The ants came marching four by four....
The little one stopped to shut the door....
The auts came marching five by five...
The little one stopped to take a dive....
The auts came marching six by six....
The little one stopped to pick up sticks....
The auts came marching seven by seven....
The little one stopped to go to heaven...
The ants came marching eight by eight...
The little one stopped to shut the gate...
The auts came marching nine by nine...
The little one stopped to scratch his spine...
The auts came marching ten by ten
The little one stopped to say THE END!

## I'm a Little Spider

I'm a little spider, watch me spin.
If you'll be my dinner,
I'll let you come in.
Then I'll build my web to hold you tight,
And gobble you up in one big bite!

## Tommy's Pet Spider tune Itsy Bitsy Spider

Tommy's pet spider climbed up the bedroom wall
In came the wind and made the spider fall
when Tommy's Mum came in the room to sweep the floor all clean She saw the little spider and boy did Mummy scream!

## The Spider (Sung to: Twinkle Little Star)

There's a spider on the wall
If he's careful he won't fall
He moves slowly down the wall
I can watch him crawl and crawl
I wonder if he minds my stare
or does he know and just not care
The Spider in the web (Sung to: Farmer in the Dell)
The spider in the web,
The spider in the web
Spin, spin, on watch him spin,
The spider in the web.

The spider eats a (bug name)
The spider eats a $\qquad$ .
Spin, spin, oh watch him spin,
The spider in the web.

The wiggle worm tune Incy Wincy Spider
The little wiggle worm (wiggle worm)
went crawling underground. (wiggle worm under hand)
Down Came the rain; (wiggle fingers downward)
Soon mud was all around. (open arms wide)

Rain filled the tunnels (open hand; move fingers together)
And pushed out the little worm. (push worm through other hand)
So, the puddles on the ground (make an O with hand)
were the only place to squirm. (wiggle worm into 0)
Ooey Gooey
ooey Gooey was a worm
A mighty worm was he...
He crawled upon the Railroad track
The train he did not see...
ooey Gooey!!! (Say loudly)

## Wiggle Worms

Here are some worms who are, oh, so sad.
They've lost all the wiggles they once had.
They wonder if you, just for today.
would lend your wiggles so they can play

Wiggle them up and wiggle them down (wiggle arms up and down)
wiggle your worms around and round (wiggle arms around in a circle)
wiggle them high and wiggle them low (wiggle arms high and wiggle arms low)
wiggle them fast and wiggle them slow (wiggle arms fast and wiggle arms slow)

Wiggle them over your shoes and socks (wiggle finger over shoe, and wiggle finger on sock)
Then wiggle them back up to their box (pretend to place their worm in a box on their lap)

Thank you for sharing your wiggles today.
You'll get them back when it's time to play.
Now that your wiggles are all gone from you,
I'll tell you what we are going to do.
Nobody Likes Me... (you can also 'say' it)
Nobody likes me,
Everybody hates me,
I'm gonna eat some worms...

Long, thin, slimy ones,
short, fat, juicy ones,
Itsy, bitsy, fuzzy wuzzy worms.

Down goes the first one,
Down goes the second one,
Oh how they wiggle and squirm.
up comes the first one,
up comes the second one,
oh how they wiggle and squirm.
Wiggle Worm Tune: Did You Ever See a Lassie?
(wiggle fingers, arms or entire bodies as you sing the song)
Did you ever see a wiggle worm.
A wiggle worm, a wiggle worm?
Did you ever see a wiggle worm
Move this way and that?

Move this way and that way,
move this way and that way,
Did you ever see a wiggle worm
Move this way and that?

## Buzzing Bumble Bees

6 buzzing bumblebees
Flying around the hive
One buzzes off and that leaves 5
5 buzzing bumblebees
Flying near my door,
1 buzzes off and that leaves 4
4 buzzing bumblebees
Flying around a tree,
1 buzzes off and that leaves 3

3 buzzing bumblebees
In the sky so blue
1 buzzes off and that leaves 2
2 buzzing bumblebees
Flying by the sun
1 buzzes off and that leaves 1
1 buzzing bumblebee
Looking for some fun
It buzzes off and that leaves none.

## Five Little Bees

make bee finger puppets. place on each finger. Then sing this song:
Five little bees
up in the trees
Busy, buzzing
Bumblebees
First they go to a flower
Then they go to the hive
Then they make some honey
What a busy family of five!!
Here is the Beehive. (make fist with one hand)
But where are the bees?
Hiding away where nobody sees,
Watch them come creeping out of their hive...1,2,3,4,5
(pop out fingers as counting)


## Bee Fingerplay

Here is the bee hive (hold fist together)
But where are all the bees (hold up hands)
Hiding very carefully
1,2,3,4,5 (Hold up fingers one at a time)
BEZZZZZEZEZEZEZ (Walk and try to sting someone)
(You can also use both hands and have 10 bees.)

## Bumblebee Song

Actions:
"bring home a baby bumblebee" = cup your hands and wave them around
"squishing up a baby bumblebee" = pretend to squish something between your hands
"licking up a baby bumblebee" = pretend to lick your hands "throwing up a baby bumblebee" = pretend to throw up "mopping up a baby bumblebee" = pretend to be mopping the floor

I'm bringing home a baby bumblebee Won't my mummy be so proud of me I'm bringing home a baby bumblebee.
Ouch! It stung me!
I'm squishing up a baby bumblebee Won't my mummy be so proud of me

I'm squishing up a baby bumblebee.
Eww! It's all over my hands!

I'm licking up a baby bumblebee Won't my mummy be so proud of me I'm licking up a baby bumblebee. unhhhh. I feel sick...

I'm throwing up a baby bumblebee Won't my mummy be so proud of me I'm throwing up a baby bumblebee. Eww! What a mess!

I'm mopping up a baby bumblebee Won't my mummy be so proud of me I'm mopping up a baby bumblebee. There, that's better!

## Cecil the Caterpillar

cecil was a caterpillar, cecil was my friend
One day I went to cecil's house
And he was this big
I said "Cecil, what happened?"
"I ate a whole cabbage leaf"

## Actions:

"my friend" = point to self
"this big" = hold hands apart (increasing distance for each repeat, except the last)
"what happened?" = throw arms out in wonder

Repeat the chant, changing the last line to increasing amounts of cabbages (eg 'a whole cabbage patch', 'all the cabbages in [town], 'all the cabbages in [Kent]', 'all the cabbages in Australia', 'all the cabbages in the world').
Once you get to 'world', the next verse sees cecil back as a tiny caterpillar, and his answer to the question is "I was sick".

## Cassie the Caterpillar tune Alice the Camel

cassie the caterpillar has twelve legs (x3)
So go Cassie go boom, boom, boom

Actions: The girls stand in a line holding on to each other's waist, lift their right leg out then their left leg out, right leg then left leg and then wiggle their hips three time
The song is repeated with ten and eight legs and the last verse is

Cassie the caterpillar has six legs (x3)
Because Cassie is a butterfly...

## Butterfly, Butterfly (to the tune of "Twinkle Twinkle Little Star)

Butterfly, Butterfly,
Fly Away,
You were a caterpillar yesterday
Butterfly, Butterfly
You never stay,
Always flying to a new day.

## The Little Caterpillar to: "Itsy, Bitsy Spider"

The little caterpillar crawled up into a tree,
Spun his cocoon and slept so quietly,
All through the winter he didn't make a sound,
He dreamt of his new life when he'd be flying all around.
While he was sleeping the snow did gently fall,
winter came and went, then her heard the robin's call,
come on Mr. Butterfly, out of your cocoon
Spread your wings and fly for me, while I sing my tune.

## Fuzzy Wuzzy Caterpillar

Fuzzy wuzzy caterpillar in the garden creeps
He spins himself a blanket and soon falls fast asleep.
Fuzzy wuzzy caterpillar wakes up by and by...
To find he has wings of beauty, changed to a butterfly.

Pretty little butterfly, what do you do all day? I fly around the flowerpots, nothing' to do but play. Nothing' to do but play, darling', nothing' to do but play.
So fly butterfly, fly butterfly, don't waste your time away

## Parts of the plants (Sung to: Head, Shoulders, Knees and Toes)

Do you know the parts of plants, parts of plants?
Do you know the parts of plants, parts of plants?
All kinds of plants that grow and grow and grow. The stem moves water up the plant, up the plant.
Do you know the parts of plants, parts of plants?

The roots hold the plant in place, plant in place.
The roots hold the plant in place, plant in place.
The roots store food and water too.
The roots hold the plant in place, plant in place.

The stem moves water up the plant, up the plant. The stem moves water up the plant, up the plant. The stem brings water to the leaves.

The leaves soak up the sun, soak up the sun. The leaves soak up the sun, soak up the sun. The sun helps the plant to grow and grow and grow. The leaves soak up the sun, soak up the sun.

The flower grows into a fruit, into a fruit. The flower grows into a fruit, into a fruit. Inside the fruit are little, tiny seeds.
The flower grows into a fruit, into a fruit.

## I'm a Little Flower Pot (Sung to: I'm a Little Teapot)

I'm a little flower pot mum put out (point to self)
If you take care of me, I will sprout. (nod head, point to self)
When you water me, I will grow (make sprinkling motions right hand)
Into a pretty flower, don't you know! (raise left hand slowly up from
floor, make wide circle with hands or arms)
I'm a little Daisy (Sung to: I'm a Little Teapot)
I'm a little daisy Tall and slim (Stand on tiptoes)
Here are my petals (place hands on side of head \& wiggle fingers)
Here is my stem (Hold arms down at sides of legs)
When the sun comes up (Make sun with arms)
And the rain comes down (Flutter hands to floor like rain-end in crouching position)
I grow, grow, grow- up from the ground! (slowly raise up bring hand over head)

## Five Spring Flowers

Five spring flowers, all in a row.
The first one said, "we need rain to grow!" The second one said, "Oh my, we need water!" The third one said, "Yes, it is getting hotter!" The fourth one said, "I see clouds in the sky." The fifth one said, "I wonder why?"

Then BOOM went the thunder And ZAP went the lightning! That springtime storm was really frightening! But the flowers weren't worried-no, no, no, no! The rain helped them to grow, grow, GROw!

## Daffodils

(Show fingers or make daffodil puppets from cupcake liners and craft sticks!)

One little daffodil had nothing much to do,
Out popped another one, then there were two.
Two little daffodils were smiling at a bee,
Out popped another one, then there were three.
Three little daffodils were growing by the door,
Out popped another one, then there were four.
Four little daffodils were glad to be alive,
out popped another one, then there were five.
Five little daffodils were wearing golden crowns,
They danced in the breeze in green satin gowns.

## I like the flowers

I like the flowers, I like the daffodils,
I like the mountains, I like the rolling hills
I like the campfire, when all the lights are low,
chorus:

Boom di-a-dah, boom di-a-dah,
Boom di-a-dah, boom di-a-dah.

## Gardening Song To "I am a Little Teapot"

I'm a Little Seedling
I love the Sun
Give me some water and let's have some fun
put me in soil
at the start of Spring
When I grow up
we can all sing!

## The Seeds Grow

The Gardner plants the seeds The Gardner plants the seeds Deep down inside the ground
The Gardner plants the seeds

The rain clouds give them water The rain clouds give them water seeds need some water to drink The rain clouds give them water

The sun gives heat and light
The sun gives heat and light

## to: "Farmer in the Dell"

seeds like it warm and bright The sun gives heat and light

The Gardner pulls the weeds The Gardner pulls the weeds seeds need the room to grow The Gardner pulls the weeds

The seeds grow into flowers The seeds grow into flowers Flowers that are beautiful The seeds grow into flowers

# Dandelions 

Once there was a dandy lady, Dandy lady, dandy lady,
once there was a dandy lady, who loved to dance, they say.

She had beautiful hair of gold,........
.......... And loved to dance all day.

As time passed by and she grew old,........
......... Her hair all turned to grey.
Now when the dandy lady dances,.......
..........Her hair all blows away.

## Five Red Apples

Five red apples hanging in a tree (hold up five fingers)
The juiciest apples you ever did see.
The wind came by and gave an angry frown (fingers flutter downward)
And one little apple came tumbling down (one finger falls)
continue with.......
Four red apples hanging in a tree, etc
Three red apples hanging in a tree, etc
Two red apples hanging in a tree, e+c
One red apples hanging in a tree, etc

Finish with.....
No red apples hanging in a tree (hold up hand fingers closed)
No juice apples for me to see.
The wind came by and gave an angry grown
And no little apples came tumbling down. (shrug shoulders, shake head)

## Way up High in the Apple Tree

Way up high in the apple tree, (hold arms up high)
Two red apples looked down on me. (make fists for apples)
I shook that tree as hard as I could, (shake the tree)
And down fell the apples (hands fall to the ground)
mmmm were they good! (take a bite, and rub your tummy)

## Green Plants Need Sing to the tune of three Blind Mice

Three main things, three main things, Green plants need, green plants need. For plants to grow and plants to thrive, In order to keep green plants alive, What does it take for them to survive? Just three main things.

Plants need sun, plants need sun,
That's number one, plants need sun.
For plants to grow and plants to thrive, In order to keep green plants alive, What does it take for them to survive? Just three main things.
plants need air, plants need air,
Be aware, plants need air.
For plants to grow and plants to thrive, In order to keep green plants alive, What does it take for them to survive? Just three main things.

Plants need water, plants need water, Especially when it's hotter, plants need water. For plants to grow and plants to thrive, In order to keep green plants alive, What does it take for them to survive? Just three main things.

Down in the Garden Finger Play
Down in the garden (point to right)
Where the dandelions grow, (touch heels of hands together, curve fingers)
They have soft puffballs (make circle with thumb and forefinger)
That I can blow. (blow through circle)
The seeds all scatter, (float hands, wiggling fingers gently)
And they float through the air (spread hands)
Soon we'll have dandelions everywhere!

Do You Know The Parts of Plants? to Tune: Head, Shoulders, Knees, And Toes
Do you know the parts of plants...
Parts of plants?
Do you know the parts of plants...
Parts of plants?
All kinds of plants that grow and grow and grow.
Do you know the parts of plants...
parts of plants?

The roots hold the plant in place...
plant in place.
The roots hold the plant in place...
plant in place.
The roots store food and water, too.
The roots hold the plant in place,
plant in place.

The stem move water up the plant...
up the plant.
The stem move water up the plant,
up the plant. ...
The stem brings water to the leaves.
The stem move water up the plant,
up the plant.

The leaves soak up the sun...
soak up the sun.
The leaves soak up the sun...
soak up the sun.
The sun helps the plant to grow and grow and grow.
The leaves soak up the sun,
soak up the sun.
The flower grows into a fruit...
Into a fruit.
The flower grows into a fruit...
Into a fruit.
Inside the fruit are little tiny seeds.
The flower grows into a fruit,
Into a fruit

## Badge ordering - Garden

You can order badges in two ways, either by cheque or electronically

| $1-15$ Badges | $=£ 1.00$ |
| :--- | :--- |
| $16-30$ Badges | $=£ 1.50$ |
| $31-50$ Badges | $=£ 2.00$ |
| $51+$ | $=£ 3.00$ |

## Paying by cheque:

please complete the details and post this form with full payment
Leader name $\qquad$
Unit name $\qquad$
Address to post badges to $\qquad$
$\qquad$
$\qquad$
$\qquad$
contact email address for any queries $\qquad$

Number of badges (90p each) $\qquad$
Postage at
Total
make cheques payable to
$4^{\text {th }}$ Northumberland Heath Rainbows

Post to:
$\checkmark$ whitehead
40 Rudland Road
Bexleyheath
Kent
DA7 6DD

## Paying electronically:

We can take payments electronically via BACs or card payment.
If paying by card - order badges here: $h+t p s: / /$ rainbow-
badges.onlineweb.shop/Garden Fun/p7219745 21145649.aspx
If paying by BACS please email the following details to us (barnehurstrainbows4agmail.com) with subject:
Garden Fun Badges and we will provide you with bank details

- Leader name
- Unit name
- Address to post badges to
- Number of badges (90p each)
- Postage at
- Total

