Family or class activities
Rainbow ramble

Different seasons bring different colours in woodland. We might think that most colours disappear in winter but how wrong we would be. Let's discover the richness of colour around us as we walk. You will be surprised at just how many shades of rainbow colours can be found.

Seven Woodland Challenges

These activities should be directed by an adult.

Woodland Challenges

1. Rainbow treasure hunt
2. Colour chart capers
3. Leaf hunt
4. Flowers friends
5. Multi-coloured minibeasts
6. Bountiful berries
7. Paints & dyes from nature

1 Rainbow treasure hunt

Children enjoy collecting things.

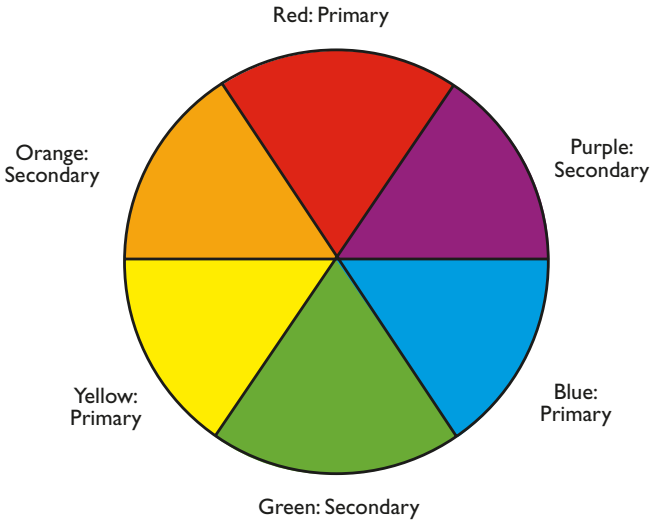
They will need:

- A recycled plastic carrier bag to collect leaves etc.
- Notepad, pencil & clipboard to record things they can't take back.
- A sheet of paper or card to stick on coloured samples that they find (either during the ramble or back at home).
- Glue stick or double-sided sticky tape.

2 Colour chart capers

You will need house paint colour charts from your local DIY store. Use the same chart for each child/group of children to make competition fair. You could use the strip samples found at the 'Mix your own colour' counter if you want to give the children a slightly different challenge.

Have a competition to see how many different colours children can match with those in nature. If possible, assign an adult to each group to check the matching and to avoid having to remove the samples from the wood. Cross colours off as they find them. You will be amazed at how many different shades of one colour they can find.



A simple colour chart

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3 Leaf hunt (autumn challenge)

You will need the leaf collecting bag template from www.naturedetectives.org.uk/resources

In autumn, when it gets colder and the days shorten, the green pigment (chlorophyll) in the leaf stops being made and breaks down. This then reveals carotene, a yellow pigment which is always present but is masked by the green colour of chlorophyll. If the weather is sunny, dry and cold, anthocyanin (red pigment colour) is sometimes produced. This creates our wonderful range of leaf colour.

Challenge everyone to find as many different colours of one type of leaf as they can. Mountain ash (Rowan), Field maple and Beech can produce impressively coloured leaves.

Who can find the leaf that has the most colours on it all at the same time?

4 Flowers' friends (spring/summer challenge)

As you walk through a wood keep an eye out for the many different wild flowers. Some will be in the shade and some in full sunlight. Some will have large colourful flowers and some have small pale flowers. Different insects prefer different flowers. Bees and hoverflies prefer white and pale colours (they often rest on washing hung out on a line in the sun). Butterflies like most colours and will be attracted to bright red which other insects cannot see. Lots of different insects will land on the blossom of trees which is frequently white or pale pink. These will spread the pollen which is needed to make fruits and seeds.

Which insects can you see landing on flowers? Which ones do you see most?
Do some appear to prefer certain colours? You could also try testing this with pieces of different coloured paper.


Autumnal leaves: WTPL/Archie Miles


Meadow brown butterfly: WTPL/W & K Wheatley


Bumblebee: WTPL/Mike Brown

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5 Multi-coloured minibeasts

Brightly coloured markings such as red or yellow are sometimes used as warning signs or to attract a mate. Some brightly-coloured creatures taste nasty, smell nasty or sting. A predator (something that may eat them) will learn to keep away from the bright colour. The ladybird is an example of this. Some birds have learnt that bright red equals a horrid smell and taste.

Butterflies use their bright colours to help find a mate. Look out for butterflies and other insects and make a list of all the different colours you have seen.

6 Bountiful berries

In the autumn there are lots of berries and other fruits in the woods. We must be very careful when picking berries as some are very poisonous, can produce allergic reactions or stain. Always check with someone who knows about berries or use an identification guide.

Berries provide food for birds and animals during the winter. Fruits often have bright colours and lovely smells to attract creatures to eat them. Not only does this help the animal find them but it also helps the plant spread its seeds when the animal takes them away.

Children like squashing berries in their fingers and underfoot. Squashing a few is fine but explain they are animal food and should be left for them. A closer look at squashed berries can be educational and fun. Take a few berries and squash them inside a plastic bag.

Can you see the seeds inside?

How many seeds can you see?

What do the seeds look like?

Is there a hard stone in the middle or lots of little seeds?

blackbird with hawthorn berries

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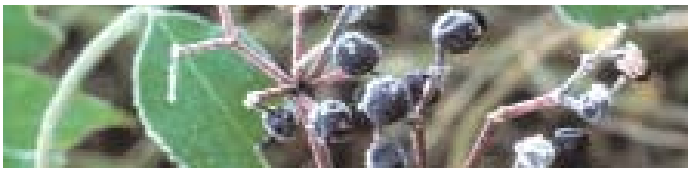
7 Paints & dyes from nature

A range of different coloured dyes and paints can be made from common woodland plants. Children love to both make and use them. Here are a few ideas:

Elderberries – pale purple



Dandelion flowers – yellow

Rose hips – red

Nettles – green

Blackberry fruit – purple/blue

See www.pioneerthinking.com/naturaldyes and click on 'natural dyes' for other ideas.

Always wear protective clothing and plastic gloves when handling since many dyes will stain.

To make:

Chop the material into small pieces and put in a saucepan. Add roughly double the amount of water to plant material. Simmer for 30 minutes (longer if you want a stronger colour). Strain and cool if you are using it as a paint or strain and add a natural fabric such as cotton or wool if you want to dye it.

Experiment with different plants to see if you can find more colours. Some roots and leaves will give surprising colours e.g. dandelion root gives red.

Use your colours to create a natural paints rainbow.

The Field Studies Council produces a fold-out guide and teachers notes that look at colouring in the environment. 'Exploring Colour in the Environment' can be ordered online at www.field-studies-council.org/publications/foldout.aspx

Photographs from top to bottom: WTPL/Tessa Bunney, ffdc.melbournewater.com.au/gallery/default.asp, montereybaynsy.com/R1.htm, WTPL/Brian Donnan, WTPL/Margaret Barton

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