

# Experiment With Nature

## Make a Food Chain Mobile

In nature all organisms are part of a food chain. This is when they form a chain by eating each other. A food chain always begins with a plant. This can then be eaten by a small creature like a snail which can be eaten by a small bird which can then be eaten by a larger bird or creature. There are many food chains. See how many you can list!

### Things you need

A large sheet of card, scissors, a wire coat hanger, thread, sticky tape and a pencil.



### And then...

Draw eight leaves, four caterpillars, two birds and one cat. Cut these out and using the thread and sticky tape attach the leaves onto the hanger. Attach a caterpillar to two leaves and a bird to two caterpillars. Finally attach the cat to the two birds. Now you have a food chain!

Here are some activities you can try at home or at school. Please ask for permission from a grown-up before you begin.

## Environmental Friendly Badge

### Things you need

330ml of milk, tablespoon of vinegar, a saucepan, a cooker, a sieve and a safety pin.

### And then...

Heat the milk in the saucepan over a low heat, but do not bring it to the boil. Add the vinegar. This causes a white rubbery material called casein to form. Over the sink, pour the milk through the sieve and collect the casein left behind. Allow this to set (for a day or two) but press the safety pin in before it hardens completely. You now have a blank badge, which you can decorate yourself with a photo or drawing!

## Experiment with your Bird Feeder

This is a fun and interesting experiment that can include the whole school. It involves observing birds and their feeding habits at different times of the day and year.

### Things you need

A variety of different bird feeders i.e. a bird table, hanging feeders etc. a range of different types of food i.e. nuts, seeds, raisins, suet etc. An outdoor thermometer and a notebook and pencil.



### And then...

In your garden set up the bird feeders in slightly different locations. Measure and record the amount of food you put on each and take note of the weather and temperature. Watch and take note of the birds that feed during the day.

### What to look for

Does the weather or temperature affect what food the birds eat? Are different types of birds attracted to different foods? What conclusions can you come up with from your observations?

## Experiment to Observe a Chemical Reaction



### Things you need

2 iron nails, 2 jars with lids, cooking oil, tap water and cooling boiled water.

### And then...

**Jar no.1:** Put the nail into the jar, cover with tap water and firmly close the lid. Leave for a few days

**Jar no.2:** Put the nail in the jar and carefully cover the nail with the cooled boiled water. On top add a layer of oil. Firmly close the lid. Leave for a few days.

### What happens and why?

The nail in the tap water goes rusty but the other does not. This is because oxygen must be present to make something go rusty. The tap water has oxygen in it whereas the boiled water has had all the oxygen boiled out of it and no oxygen can enter it now as the layer of oil stops it.