

Parent Guide

How can I use this with my children?

Use these science experiment ideas for a low-cost fun day indoors or in the garden. Most of them will require some adult help and supervision so they make a great opportunity for family bonding.

How does this help my children's learning?

These activities are a great way to introduce your child to scientific thinking, and engage them with science in a tactile way. It also allows them to keep learning while making the most of the sunshine!

Ideas for further learning:

Why not go the extra mile and treat these activities like proper experiments? Carefully record and measure your results and then discuss why you think they happened. You could draw them up into a colourful graph or diagram.



10 Brilliant Science Experiments for the Summer Holiday

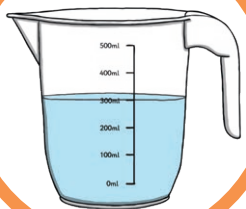
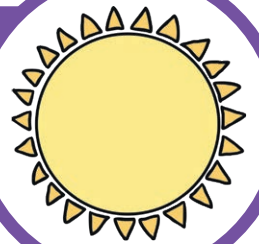


Blow up a balloon with baking soda

Pour 125ml of white vinegar into a bottle. Use a funnel to put 3 heaped teaspoons of baking soda into a balloon, then stretch the neck of the balloon over the opening of the bottle. Lift the balloon so that the baking soda is dumped into the bottle – and watch what happens!

Explore evaporation

On a sunny day, pour some water in a puddle on the patio or pavement. Once the water has settled, draw a chalk circle around it. Leave it for an hour or so, then come back and redraw your circle. Do this several times. What happens to the water?



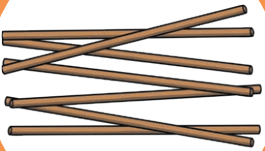
Make a water filter

Make a jug of dirty water by adding leaves, mud and gravel to clean water. Give it all a good stir. Line a funnel with a paper towel and insert it into a bottle. Pour your dirty water through the funnel. Does this make it clean? Try adding another paper towel and see if this makes a difference. What is left behind in the funnel? Would you drink the water you have filtered?

Make an ice balloon



Fill a balloon with water, knot it tightly and freeze. Cut the balloon off and explore the icy bubble you have made. Try sprinkling on some salt or dabbing food colouring or watercolour paint onto the icy surface. It's also fun to fill and freeze a latex glove to make an 'icy hand'.



Build a den

Find a woodland area and build a den with sticks and leaves. Which structure is the most stable? How can you make your shelter waterproof?

Explore the life cycle of a butterfly

Invest in a 'butterfly kit' (available from lots of online suppliers). You will receive a pot of tiny caterpillars, which you can watch grow and develop into butterflies.



Grow some seeds

Plant them in pots or in the ground, or grow a seed like a broad bean by filling a transparent plastic cup with wet paper towels and placing the seed between the paper and the side of the cup. Keep the paper moist and watch the seed germinate.

Make some colourful flowers



Buy a bunch of white flowers (carnations work well). Trim the ends of the stems with sharp scissors, then put the flowers in water to which you have added some ink or food colouring. Experiment with different colours and see what happens. For a different effect, carefully split the stem of one flower vertically with a sharp knife, then put one half of the stem in one colour and the other half in another colour.



Explore melting and insulating

Put some ice cubes or ice lollies in different places around the house or garden (put them on a plate first!) Predict which one you think will melt the fastest and slowest. Now observe them regularly and see if you were right. Or choose 4 or 5 different materials like foil, fabric, paper and cotton wool. Wrap an ice cube or lolly in each material and see which one is the best insulator (prevents the ice from melting).

Make a bottle rocket



Fold a piece of card into a cone shape and attach to the bottom of an empty 2l plastic bottle to make a 'nose cone'. Insert the nozzle of a hand or foot pump into the neck of the bottle. Now see how high you can launch your rocket. Have a competition with your friends. Does it make a difference how hard you pump? What about changing the size of the bottle?

If you enjoyed this resource, why not try...

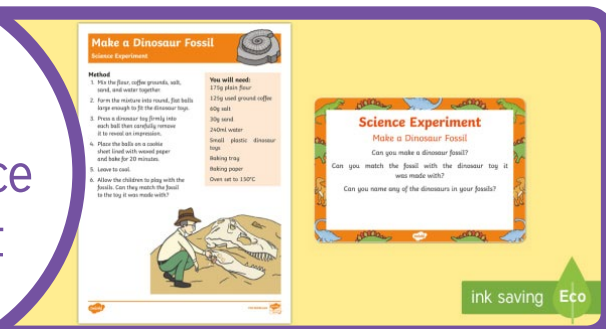
EYFS Summer Themed Science Experiments



Low Cost Fun in the Holidays Idea Sheet



Make a Fossil Science Experiment



A to Z Holiday Planner Activity



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