

50 Science Experiments to try at Home

1. Learn about the crystallization process by [growing rock sweets in a glass](#).
2. Place white flowers in coloured water and [watch how they soak up the hues](#).
3. Build a container for an egg that protects it from breaking and then test it out by dropping it from on high.
4. Make [homemade ice cream in a bag](#): shake salt, ice, cream and sugar vigorously until the consistency is right, then enjoy.
5. Drop Popping candy into a bottle of soda and then place a balloon onto the opening to [watch it inflate](#).
6. Whip up some [Oobleck](#), a fascinating non-Newtonian fluid that can act like a solid or a liquid depending on certain conditions.
7. Mix baking soda, vinegar and glitter for a [sparkly volcano](#).
8. Microwave any soap that floats to create a bizarre [puffy soufflé](#).
9. Grow a [bean in a clear cup](#) to watch the roots grow down and the stem grow up.
10. Blow bubbles outside when it's below 0 degrees and watch them freeze (you can also try it in your freezer but it's tougher).
11. Use lemon juice to [make invisible ink](#) that can only be seen when held up to a heat source.
12. Fold a paper aeroplane and then bend a corner to see how that changes its flight path.
13. Set up a row of bottles with varying amounts of liquid and then blow across the openings to hear the different tones.
14. Learn about surface tension by [dropping food colouring into milk](#) and watch as the colours move when you add some soap.
15. Create a [tornado in a bottle](#) by taping two plastic bottles together neck to neck—one filled, the other empty—and swirling it quickly.
16. Build a [marshmallow catapult](#) out of a plastic spoon, rubber bands and lollypop sticks.
17. Mix Coke and Mentos and stand back to watch the explosion.
18. Make your own butter by [shaking a jar of heavy cream](#).
19. Force an [egg to fit into a bottle](#) by creating a suction using heat.
20. Change how an egg floats or sinks in a glass by adding salt to the water.
21. Plop oil into water to see that they really don't mix; try it with a variety of liquids to make a rainbow of stripes.
22. Grow mould on bread by putting slices in different environments (in a bag in the dark, in a bag in the sunlight, out in the open, in the refrigerator); see which one gets mouldy first.
23. Demonstrate centripetal force by [spinning a bucket of water on a rope in a vertical circle](#).
24. Make "[elephant toothpaste](#)" (a.k.a. an impressive large foam) out of soap, yeast and hydrogen peroxide.
25. Fill a plastic bottle to the brim with water and put it in the freezer; in a few hours the bottle will crack because ice expands.
26. Use a plastic bag and cup to [build a parachute for a light toy](#).

27. Ask your kids to do simple tasks with their hands, feet and eyes (like grab a ball, stand on one foot or wink) to see which side is dominant.
28. Make static electricity by rubbing balloons on clothing or shuffling on the carpet with socks, then zap someone with a quick touch.
29. Have your kids close their eyes and hold their nose and see if they can still identify foods by taste.
30. Bounce a ball on top of another to watch how the energy transfers to the top ball and leaves the bottom one "dead".
31. Use a balloon to amplify sound by holding it to your ear.
32. Borax plus glue equals homemade [crazy putty](#).
33. Use food colouring and water to see how combining primary colours makes secondary colours.
34. Explore the fat content of different foods by wiping them on a brown paper bag—fatty foods leave behind a greasy spot, while fruits and vegetables leave no trace at all.
35. Mix a batch of bread dough and separate it into several different bowls; place them in different places (outside, inside, in the dark, in the light) to see which environment yeast thrives in.
36. Turn milk into a [material that acts like plastic](#) using white vinegar.
37. Polish pennies with lemon juice or coke—a quick soak in the acid leaves them shiny.
38. Make a [Rube Goldberg](#) machine featuring a series of moving pieces that affect one another. Marbles, dominoes, books and most any surface.
39. Build your own periscope using a milk carton and carefully angled mirrors that allow you to see things above or behind you.
40. Test your reaction time by having a friend drop a ruler between two almost closed fingers, and see how fast you can grab it.
41. Map your taste buds by dipping cotton buds into different flavors and placing them on different areas of your tongue.
42. Find your [blind spot](#) by moving a card with a speck on it until you can no longer see the spot.
43. Build a miniature [windmill](#) using a few simple objects, and watch it spin faster or slower based on the direction of the "blades".
44. Make a [sundial](#) by placing a stick in a vertical position and a circle of rocks around it marking each hour.
45. [Cut ice in half](#) using a piece of string or wire—the pressure melts the ice faster than the air.
46. Make a rainbow by holding a glass of water up to the sunlight with a sheet of paper behind it to catch the colours.
47. Build a [rocket balloon car](#) using a Styrofoam tray, a balloon and a straw; watch how air pressure moves it across the table.
48. Make a [lava lamp](#) by pouring vegetable oil into water, then sprinkling salt on it to make the blob of oil move.
49. Craft a duck call by cutting the ends of a straw into a point, then blowing.
50. Fashion your own ball with this [recipe](#) and see how various shapes bounce differently.