63 Easy Science Experiments for Kids Using Household Stuff

2/13/20 - By Karyn Marciniak

Searching for kid-friendly science experiments? Don't worry if you never made it past biology: These 63 science experiments for kids are super-easy and a lot of fun to boot, as kids are exposed to a wide variety of scientific concepts. It's a great way to spend quality time together as a family and who knows, mom and dad may end up learning a new thing or two, too.

Besides, children are born scientists. They're always experimenting with something, whether they're throwing a plate of spaghetti on the wall, blowing bubbles in the bathwater, or stacking blocks into an intricate tower only to destroy it in one big swipe. As they get older, you may decide to enroll them in a FREE online coding class to get a leg up in today's digital world, a STEM summer camp, or work together on their very first (or final) science fair project. But you can actually do some pretty mind-blowing, hands-on science experiments at home using stuff you probably have lying around the house.

Find more STEM fun for kids of all ages in our STEM and Science Experiments for Kids Guide.

Food-Based Science Experiments for Kids

Kids can make their own sweet treat with this science experiment: rock candy in a glass. Photo courtesy of Wikivisuals

1. Learn about the crystallization process by growing rock candy in a glass.

2. Mix Diet Coke and Mentos and stand back to watch the explosion. (Really! Stand back.)

3. Use lemon juice to make invisible ink that can only be seen when held up to a heat source.

4. Make homemade ice cream in a bag: shake salt, ice, cream, and sugar vigorously until the consistency is right, then enjoy.

5. Drop Pop Rocks into a bottle of soda and then place a balloon onto the opening to watch it inflate.

6. 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.

7. Build a container for an egg that protects it from breaking and then test it out by dropping it from on high.

8. Make your own butter by shaking a jar of heavy cream.

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Make sure an adult lights the candle for this amazing egg in a bottle science experiment. Photo courtesy of Wikivisuals

9. Force an egg to fit into a bottle by creating a suction using heat.

10. Change how an egg floats or sinks in a glass by adding salt to the water.

11. Turn milk into a material that acts like plastic using white vinegar.

12. 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.

13. Grow mold 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 moldy first.

14. Have your kids close their eyes and hold their nose and see if they can still identify foods by taste.

15. Dabble in some kitchen science while making this yummy ricotta cheese.

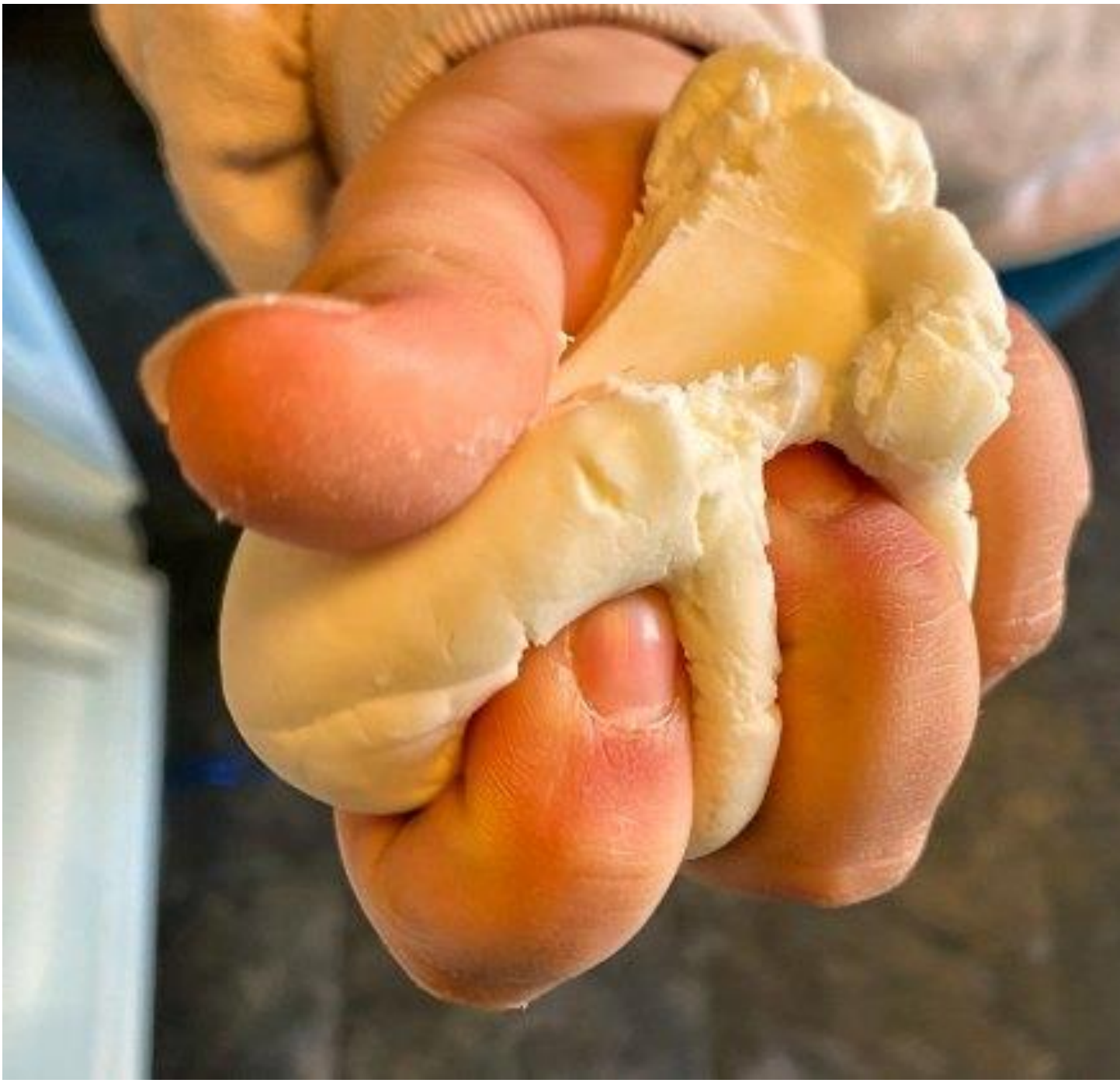
Watch vinegar dissolve the shell of an egg!

16. Your egg will be so embarrassed when you leave it naked! Dissolve the shell right off an egg by simply placing it in a cup of vinegar.

17. Map their taste buds by dipping Q-tips into different flavors and placing them on different areas of your tongue.

18. 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.

Slime, Putty, and Oobleck Science Experiments for Kids



This soft, non-slimy putty even cleans your hands. Now that's a mom-approved science experiment.

19. You will be squeaky clean after creating this satisfying non-sticky putty by simply combining cornstarch and dish soap.

20. Whip up some Oobleck, a fascinating non-Newtonian fluid that can act like a solid or a liquid depending on certain conditions.

21. Microwave Ivory soap (or any soap that floats) to create a bizarre puffy soufflé.

22. Borax plus glue equals homemade slime.

Outdoor and Nature Science Experiments

23. Grow a bean in a clear cup to watch the roots grow down and the stem grow up.

24. Blow bubbles outside when temperatures dip to the single digits and watch them freeze.

25. Craft a duck call by cutting the ends of a straw into a point, then blow.

26. Set up a row of bottles with varying amounts of liquid and then blow across the openings to hear the different tones.

27. Make a sundial by placing a stick in a vertical position and a circle of rocks around it marking each hour.

28. Cut ice in half using a fishing wire—the pressure melts the ice faster than the air.

29. Make a rainbow by holding a glass of water up to the sunlight with a sheet of paper behind it to catch the colors.

30. Create a tornado in a bottle by taping two plastic bottles together neck to neck—one filled, the other empty—and swirling it quickly.

31. S’more science please! Harness the power of the sun and turn a pizza box into a solar oven and roast some delicious treats for the whole family.

32. Place white flowers in colored water and watch how they soak up the hues.

Science Experiments for Kids that Fizz, Bubble, and Foam

Make a beautiful volcano in your own kitchen! Photo courtesy of Wikivisuals

33. Mix baking soda, vinegar, and glitter for a sparkly volcano.

34. Make "elephant toothpaste" (a.k.a. an impressive large foam) out of soap, yeast, and hydrogen peroxide.

35. This glitter does more than shine, it sparks a scientific experiment to see how far germs can spread.

36. Baking soda and vinegar react to make these popcorn kernels hop around a jar of water.

Fizzy lemons are an easy all-ages science experiment.

37. Create a colorful and fizzy reaction by adding a drop of food coloring and a little baking soda to a sliced lemon.

38. Discover how to keep your pennies shiny by experimenting with different cleaning solutions.

Physics and Physical Science Experiments for Kids

39. Make a Rube Goldberg machine featuring a series of moving pieces that affect one another: marbles, dominoes, books, and most any surface.

40. Build a rocket balloon car using a Styrofoam tray, a balloon, and a straw; watch how air pressure moves it across the table.

41. Use a plastic bag and cup to build a parachute for a light toy.

42. Looking for hands-on science experiments? 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.

43. Build a marshmallow catapult out of a plastic spoon, rubber bands, and Popsicle sticks.

44. Test your reaction time by having a friend drop a ruler between two almost closed fingers. See how fast you can grab it.

45. Explore the scientific concept of density while taking a bath. Ivory soap boats do more than just float, they demonstrate density.

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All ages can enjoy tower building.

46. Engineer a tall tower using red party cups and sheets of paper. How high can you go?

47. Fold a paper airplane and then bend a corner to see how that changes its flight path.

48. Find your blind spot by moving a card with a speck on it until you can no longer see the spot.

49. Build a miniature windmill using a few simple objects. Watch it spin faster or slower based on the direction of the "blades."

50. Bounce a ball on top of another to watch how the energy transfers to the top ball and leaves the bottom one "dead."

51. Demonstrate centripetal force by spinning a bucket of water on a rope in a vertical circle.

The Rest of Our Favorite Science Experiments for Kids

Scram pepper! Soap chases the intruder in this science experiment.

52. Dish soap, pepper, a toothpick, and a little bit of water are all kids need to feel like science wizards. Watch a little drop of soap chase pepper away in the Petter & Soap Experiment.

53. Make a lava lamp by pouring vegetable oil into water and then sprinkling salt on it to make the blob of oil move.

54. Fashion your own bouncy balls with this recipe to see how various shapes bounce differently.

55. Use a balloon to amplify sound by holding it to your ear.

56. Budding meteorologists can create shaving cream storm clouds and Technicolor raindrops.

57. Make static electricity by rubbing balloons on clothing or shuffling on the carpet with socks, then zap someone with a quick touch.

Grow gummy bears with a special science solution.

58. These gummies won't be so yummy in your tummy, but you can watch gummy bears grow by placing them in water, salt water, and vinegar.

59. Build your own periscope using a milk container and carefully angled mirrors that allow you to see things above or behind you.

60. Be a DIY spy with this fun fingerprint experiment. Collect fingerprints using one of these methods, and then dive a little deeper with a forensic study of fingerprint patterns.

61. Use food coloring and water to see how combining primary colors makes secondary colors.

62. Learn about surface tension by dropping food coloring into milk and watch as the colors move when you add some soap.

63. 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.

This article was first published in 2014, but it has since been updated. Additional reporting and photos by Ally Noel except where noted.