



10 Thrilling Halloween STEM Activities

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The leaves are starting to fall, and kids and parents alike are getting excited for one of autumn's most exciting holidays: Halloween! By energizing your child's learning routine with seasonal activities and experiments, not only will your child grow their knowledge and skills, but will have a blast along the way. Keep reading below to discover spooky new ideas for Halloween STEM activities for kids that you'll love as much as your kids!



Candy Pumpkin Haunted Houses

It's frighteningly easy to create Halloween theme projects perfect for preschool and kindergarten students! For this activity, all you need is toothpicks and small pumpkin candies, like Brach's Pumpkins or jelly pumpkins. Simply task your child to create a haunted house by building only with toothpicks and pumpkins.

Make it a challenge by giving your child rules to abide by during the engineering of his or her structure. For example, decide upon a set number of toothpicks and pumpkins, and tell your child to build the tallest tower possible given the amount of supplies allotted. Additionally, feel free to build more structures, like a creepy 3D witch's hat!

Jack-o-Lantern Eruption

This simple pumpkin STEM activity is perfect for the first grade or lower, and allows little learners to explore chemical reactions of common household items. Close to Halloween, go ahead and carve your pumpkin, and protect your work area with plenty of paper towels or newspaper, since things are about to get messy! Once carved, sprinkle baking soda on the inside bottom of the pumpkin carcass.

It's not necessary to measure, but add at least 4 to 5 tablespoons of baking soda to the bottom of the jack-o-lantern. Add a few drops of food coloring, using the color of your child's choice. Finally, help your child pour vinegar into the bottom of the pumpkin and watch it erupt! Afterwards, discuss the chemical reaction that occurs when mixing vinegar with baking soda!

[STEM learning doesn't stop after Halloween has come and gone! Score sputacular fall savings to last the entire season and beyond. Use promo code SPOOKY20 to get 20% OFF the yearly subscription to Kids Academy Talented and Gifted Program!](#)



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Tracking Jack-o-Lantern's Decay

Once the pumpkin is carved and on display, your child will notice that the pumpkin doesn't seem to last very long. Make this process a teachable one by tracking the course of decay your pumpkin will take once Halloween has come and gone.

To get started, leave the pumpkin on the porch, and be sure to have disposable gloves, tweezers, a detective's notepad, and a magnifying glass on hand and ready for the days

ahead. Check on the pumpkin each day with your child, and help him or her record observations. Poke around with tweezers, and examine the mold that forms over the next few days. What does your child notice, and why is this happening? Discuss all this and more, even as Halloween draws to a close.

Spooky Flying Ghost Rockets



Here's a fun festive activity that is sure frighten your child with Halloween fun! This exciting science activity will have your child building ghost rockets that truly fly. Be sure to move outdoors for this activity, and stock up on small, clear film canisters, which are easily found online. Using a black permanent marker, draw ghost faces on the film canisters. Add a small amount of corn starch to each of the canisters, and fill with water so that it's approximately 1/3rd of the way full, and stir well. When ready, take an Alka-Seltzer tablet and break it in to 3 or 4 small pieces.

Using a piece of Alka-Seltzer, quickly drop it in a film canister and immediately turn it over so the opening is on the ground. Stand back and watch as the ghostly rocket explodes upwards, making it fly in the air!

Making Monster Eyeballs

This next activity makes a wonderfully creepy Halloween STEM activity for kindergarteners! Using permanent markers, color a few eggs to make them look like eyeballs. Use colored markers to design ghastly eyeball designs. Put the eggs in individual jars, and cover them with vinegar. Encourage your child to make an observation about what, if anything, happens when the vinegar is added to the jars with the eggs. Leave the eggs sitting in the jars of vinegar overnight, and again observe the results. Because vinegar is an acid, the hard shell will have broken down, leaving only the rubbery egg membrane underneath. Make sure to have your child touch and feel the egg and record his or her observations.

Next, to make monster eyeballs, return the eggs to the jars, and cover with corn syrup. Add in a few drops of food coloring for maximum creepiness! Store the jars in the refrigerator for at least 24 hours, and pull them out the next day to see how they look and feel! The eggs will now be shriveled thanks to osmosis! Keep experimenting with different liquids to see how your monster eyeballs evolve.

Creepy, Crawly Worms



How would your child like to make creepy crawly worms that actually crawl? This thrilling STEM activity will entertain your little learner while teaching science skills. Get ready with gummy worms, vinegar, kitchen shears, water, and disposable cups. Start by cutting the gummy worms lengthwise multiple times using the kitchen shears to make super skinny worms. Next, mix 3 tablespoons of baking soda into a cup of water using the disposable cup. Let them soak for at least 15 minutes.

While waiting, fill a glass or jar with vinegar. When the time is up, remove the gummy worms with a fork, and drop them into the glass jar with the vinegar. Watch as the gummy worms come alive to dance and twist until the chemical reaction wears out! Discuss how the chemicals react, causing the worms to wiggle in the vinegar!

Oozing Magnetic Black Slime

Shop ahead to plan for this exciting Halloween creation. Look online at Amazon to find the supplies for this exciting activity. To get started, you'll need: liquid starch, school glue, iron oxide powder, craft sticks, disposable plastic bowls, and a set of neodymium disc magnets. Make sure to protect surfaces like counter tops, and use parchment paper to prevent spills and stains.

Follow these steps to make the slime:

- Pour about $\frac{1}{4}$ cup of liquid starch into a disposable bowl. Add 2 tablespoons of iron oxide powder, stirring with a craft stick until mixed well.
- Stir in $\frac{1}{4}$ cup of white school glue, and keep mixing well!
- Next, mix the slime with your hands, and keep squishing it in between your fingers. Once finished, wash your hands well to avoid staining because they'll be black from the iron oxide powder. Use disposable gloves to avoid staining entirely!
- Pat the slime with paper towels to remove excess liquid, and let the slime set.
- Experiment with the magnets to explore the magnetic properties of the slime!

After playtime, don't forget to clean up! Since the magnets are extremely strong, take caution supervising your child while playing.

Does it Dissolve? Candy Science



This interesting science experiment is perfect for Halloween, and gives your family a way to use all that extra candy! In this fun-filled STEM activity, kids will explore the [liquids that will dissolve](#) popular Halloween candies. Gather popular candies, like candy corn, candy pumpkins, and ghost or pumpkin Peeps. Plan your liquid solvents ahead of time, but plan to use hot water, cooking oil, cold water, vinegar, and Alka-Seltzer. Add candies to plastic cups and fill with the solvent of your choice, and help your child record his observations.

Be sure to do this in rounds, focusing on one candy type per round. Grab a timer, and wait, recording observations along the way. This could take some time, so feel free to step away and come back to the experiment as needed! After all is said and done, have your child record all observations about each candy and solvent and talk about why each candy reacted as it did!



Sink or Float: Halloween Edition

While you have the candy out, grab a few candy bars from the Halloween candy stash, and test to see if it sinks or floats in water. Unwrap the candies, and prepare plastic cups with about a cup of water in each. Drop in the candies, one piece per cup. Talk about the differing densities, and try it with other types of candy, like marshmallow Peeps or Lifesavers gummies. Record observations in your child's science notebook, noting which candy floated, and those that sunk.

Spooky Cotton Swab Skeleton



Another Halloween engineering activity, this spooky activity will challenge your early learner with building a skeleton from nothing more than cotton swabs and glue! Help your child use hot glue to construct mini skeletons made from cotton swabs, and amp up the challenge by discussing the differences between human and animal skeletons. Encourage your child to make both animal and human skeletons, gluing them to black construction paper!

This autumn, in addition to the usual festivities, don't forget to make the month of October extra meaningful with Halloween STEM activities for home, classroom and cold

weather days! Get started on the above ideas and experiments, and watch as your child's math and science skills grow through these thrilling seasonal activities!

