

For all those budding scientists, designers and engineers; here are 77 challenges you might want to have a go at! You don't have to do them in any order. Have a read through and see which ones you might take on.

You could capture what you do with a photo and email it to your teacher!



77 (MORE) Simple STEM Activities for Families



✓ Create a treasure hunt with a map & clues



❑ Learn to identify trees by their leaves



❑ Read a book with a STEM theme



❑ Make the alphabet from sticks or other natural items



❑ Make your name or words out of recycled materials



❑ Interview a relative using storycorps.org



❑ Take your bike apart and put it back together it



❑ Make something from old puzzle pieces



❑ Watch *Hidden Figures*



❑ Make a LEGO maze



❑ Test objects in your house to see if they float or sink



❑ Write instructions to make a sandwich & let someone follow them exactly



❑ Use the cards A-10 & play *War*, but see who can add, subtract, or multiply fastest



❑ Play Battleship



❑ Build a paper airplane launcher



❑ Build a fort using couch cushions & blankets



❑ Plant some flowers



❑ Make something useful from duct tape



❑ Invent something to solve a problem in your home



❑ Make "rubber stamps" out of cardboard & pasta



❑ Learn to solve a Rubik's Cube



❑ Write your own book, including drawings & cover



❑ Rearrange furniture in a room to improve function & movement in the room



❑ Track & graph your high score in a game



❑ Make ice cubes from various liquids & see how long each takes to freeze



❑ Make dinner for your family

❑ Determine how much waste there is from cooking a meal

❑ Invent your own musical instrument

❑ Try making gears using the website gearsket.ch

❑ Create a secret code using a shift or "Caesar" cipher

❑ Pick a word & see how many other words you can make from the letters

❑ Measure & graph temperature or rain totals

❑ Draw your own comic book

❑ Make a time capsule to open in 10 years

❑ Make artwork using shaving cream, food coloring, & a toothpick

❑ Plant a butterfly garden

❑ Invent a toy for your pet

❑ Watch *Cloudy with a Chance of Meatballs*

❑ Freeze a small toy or coin in water & make a time-lapse video of it melting

❑ Put different amounts of water in class containers & tap gently to make music

❑ Make paper airplanes using foldnfly.com

❑ Try sprouting a carrot top, dried bean, or fruit seed

❑ Put some dirty pennies in vinegar

❑ Put celery or flowers in water that contains food coloring

❑ Learn bird calls

❑ Build the tallest tower with 1 piece of paper & tape

❑ Turn an old book into a secret hiding place

❑ Learn to cook a new recipe or invent your own

❑ Observe the moon each night & take pictures to make a time-lapse video

❑ Measure things with a tape measure

❑ Build a model city with items in your house

❑ Make a bird feeder using a pinecone, suet, & birdseed

❑ Count how many & what type of birds come to your birdfeeder

❑ Make a mini-golf course

❑ Read a book & make a "book trailer"

❑ Paint rocks with encouraging words

❑ Weave a bracelet

❑ Learn about a STEM career

❑ Write a story, act it out with your family, & record it

❑ Make a sundial

❑ Invent a board game using bottle caps or other small items as pieces

❑ Draw something with isometric dot paper

❑ Make a slow-motion video of something in nature

❑ Learn to fold cloth napkins

❑ Make bread using yeast

❑ Draw 20 circles & turn each into something (pizza, planets, wheels, etc)

❑ Build something using toothpicks or straws

❑ Practice coding using Scratch or code.org

❑ Learn to crochet or knit

❑ Make your own tangrams

❑ Learn how cellphones work

❑ Draw a detailed map of a room in your home

❑ Learn to sew

❑ Make something from an empty toothpaste tube

❑ Look at the clouds

❑ Learn about the history of technology in your area

❑ Make cardboard automata (movable sculpture)

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