



# STEMtastic at home CHALLENGE

**Explore. Discover. Create.** Here is a list of fun activities that you can do at home, most with supplies you'll already have, and some links to take you on virtual field trips.

- Create art using crayons and the sun.
- Create a safe cleaning product using common ingredients from a kitchen.
- Compare 3 different habitats at a zoo. Visit [zoo.sandiegozoo.org](http://zoo.sandiegozoo.org) and take a virtual tour.
- Be an engineer and build a play fort
- Write an algorithm for making a sandwich
- Make a musical instrument with a rubber band to explore sound vibrations.
- Watch for a rainbow after a storm. How does the light break into colors?
- Create a board game using math concepts and recycled materials.
- Invent an outdoor game that uses 2 different senses.
- Make up a secret code and send notes to a friend.
- Find symmetry in nature and take a photo or draw a picture of it.
- Draw a design for something that makes life easier for those with disabilities.
- Make a cardboard and rubber band car that goes.
- Design and draw a picture of a future mode of transportation.
- Explore space science by tracking the phases of the moon for several weeks
- Propagate a plant in your flower garden
- Explore space science by identifying a planet or constellation.
- Experiment with paper airplanes to make them go faster, farther, and straighter.
- Learn a formula to determine distance from a lightning strike.
- Investigate 3 different health/medical careers.
- Solve a problem with a piece of duct tape.
- Make fingerprints on paper using a washable marker; add arms, legs and eyes for fun!
- Make a beauty product using common items from a kitchen.
- Double a favorite recipe or cut it in half.
- Make something using wire cutters and pliers.
- Learn about energy conductors/insulators and keeping safe in an electrical storm.
- Explore static electricity with a blown-up balloon.
- Build a shelter for a fairy from found objects that will give protection from wind and rain.
- Investigate 3 different programmer careers
- Use yeast to bake bread that rises.
- Look at something up close: use a magnifying glass and/or binoculars
- Upcycle a tin can into something fun or useful.
- Investigate 3 different engineering careers
- Visit a science museum  
Log on to [www.naturalhistory.si.edu/visit/virtual-tour](http://www.naturalhistory.si.edu/visit/virtual-tour) to take a virtual tour of the Smithsonian National Museum of Natural History
- Identify 3 species and common names of plants that you never knew before.
- Use a tool you've never tried before to fix or make something useful.
- Sew something using a sewing machine.
- Write an algorithm to help you walk or ride to a playground.
- Find directions to a favorite place by using both a paper map and a smart phone map.
- Upcycle old newspaper or magazines into a piece of jewelry.
- Investigate 3 different Space Science careers.
- Use a cup and ruler to measure rainfall.
- Send GSHS pictures/videos of your STEM adventures to [news@girlscoutshs.org](mailto:news@girlscoutshs.org) to be featured on social media.