

# #SCFGatHome

*At Home STEM (Science, Technology, Engineering, Mathematics) activities for everyone!*

## At Home STEM Activities:

- [Build a Recycling Sorting Machine!](#)
- [Build a Paper Airplane Launcher!](#)
- [Mars Rover Obstacle Course](#)
- [How Strong is your Hair?](#)
- [Build a Bird's Nest](#)
- [Make your own Sports Equipment](#) - SCFG At Home **Week 1** Challenge
- [Design a Cell Phone Stand](#)
- [Floating Drawings!](#)
- [Don't Forget: A Memorization Experiment!](#)
- [Can you Catch A Bubble?](#)
- [Make your own Rainbow](#)
- [Make your own Lava Lamp](#) - SCFG At Home **Week 2** Challenge
- [Sensing with your Feet](#)
- [Make Plastic Milk](#)
- [Make a Dancing Ghost](#)
- [Magnetic Slime](#)
- [Build a Solar Oven](#)
- [Build a Catapult](#)
- [Fireworks in a Jar](#)
- [Water Cycle in a Bag](#)
- [Recycled Can Telephones](#)
- [Trash Tower Building Challenge](#)
- [How High Would You Jump on the Moon?](#)
- [The Incredible Egg Drop Challenge](#)
- [Why Do We Have Two Eyes?](#)
- [Why Do We Have Two Ears?](#)
- [Build a Bathtub Toy Raft](#)
- **More ideas!**
  - [NASA STEM Activities for Families](#)
  - [Scientific American: Bring Science Home](#)
  - [Science Bob At Home Experiments](#)
  - [Engineering Design Squad \(Ages 9-12\)](#)
  - [Playdough to Plato: 40 STEM Activities for Kids](#)
  - [28 Days of Hands-On STEM Activities for Kids](#)
  - [Rebel Girls: 90+ Writing, Drawing and DIY Prompts](#)
  - [Beyond the Chalkboard](#)

- [Exploratorium!](#)
- [Wide Open School](#)
- [WGBH Distance Learning](#); lessons organized by Grade Level

## **Nature Activities:**

- [Start a Nature Collection](#)
- [Sort and Classify Rocks](#)
- [Nature Detective](#)
- [Outdoor Play Activities with Tinkergarten](#)
- [Virtual Tour of the American National Parks](#)
- [My Sky Observation Journal](#)
- [Design a Critter](#)
- [Outdoor Scavenger Hunt](#)
- [Cambridge Outdoors: Videos for Middle and High School Students](#)
- [Monterey Bay Aquarium Live Animal Cams!](#)
- [Outdoor Craft Ideas](#)
- [Nature Explorer Binoculars with Farrington Nature Linc](#)
- [Make a Stick Catapult with Farrington Nature Linc](#)
- [Make a Pine Cone Bird Feeder with Farrington Nature Linc](#)
- [Make a Self Watering Planter with the Weir River Farm](#)
- [Backyard Hide and Seek Hunt](#)

## **Cooking With Science:**

- [Make Ice Cream in a Plastic Bag](#)
- [Make your own Fizzy Lemonade!](#)
- [Grow Rock Candy Crystals](#)
- [Transform Yogurt into Ravioli!](#)
- [Candy DNA](#)
- [Fool your Tongue!](#)
- [Sink or Swim Oranges](#)
- [Edible Glass](#)
- [Edible Mars Rover](#)
- [Bake your Ice Cream!](#)
- **More ideas:**
  - [America's Test Kitchen: Weekly Kitchen Classroom](#)

## **Cool Videos:**

- [How Things are Made](#)

- [They Might Be Giants: Here Comes Science](#): A collection of science-themed songs and animated music videos that address core concepts.
- [Peep and the Big Wide World](#) (PBS): Video clips and related games from the popular animated science program for young children. Also available [in Spanish](#).
- [SciGirls](#) (PBS): Half-hour episodes that highlight "the processes of science and engineering, following a different group of middle school girls who design, with the help of scientist mentors, their own inquiry-based investigations on a variety of topics."
- [The World's Largest Jello Pool!](#)
- [World's Largest Elephant Toothpaste Experiment](#)
- [SciShow for Kids](#) explores all those curious topics that make us ask "why?" Every Tuesday and Thursday, Jessi and her robot rat Squeaks answer your questions and explain fun, complex science concepts for young, curious minds.
- [Science Magic Show](#)
- [USA Science & Engineering Festival Women in STEM Presentations](#)
- [Soap and the Coronavirus](#)

### Science News:

- [Science Friday Spoonfuls](#) (NPR) "The latest and greatest science news from public radio's Science Friday, ready for classroom use. Each Spoonful contains a short piece of media (article, video, radio interview), a transcript (for video and radio), student questions, and activity suggestions for extending student exploration into the science behind the story. "
- [Science News for Students](#) provides age-appropriate, topical science news to learners, parents and educators.
- [Time for Kids](#) Select your child's age for age-appropriate articles! Many are articles available in spanish or with read aloud.

### Science Podcasts:

- [Wow in the World](#) Join hosts Guy Raz and Mindy Thomas on a journey away from your screens, inside your brain, out into space, and deep into the coolest new stories in science, technology, and innovation.
- [Tumble](#): "Tumble is a science podcast for kids, to be enjoyed by the entire family. We tell stories about science discoveries, with the help of scientists! Join Lindsay and Marshall as they ask questions, share mysteries, and share what science is all about."
- [But Why?](#): "But Why is a show led by you, kids! You ask the questions and we find the answers."

### Virtual STEM Learning:

- [Khan Academy](#) Especially good for maths and computing for all ages but other subjects at Secondary level. Note this uses the U.S. grade system but it's mostly common material.
- [Learn Computer Coding with Scratch](#)
- [Mystery Science](#) K-5 STEM lessons that are free and easy to do at home!
- [DK Find Out](#) Activities and Quizzes for Kids
- [Kahoot Trivia Games](#)

### **Other Ideas:**

- [Visit a Virtual Museum](#)
- [Visit the \(virtual\) New England Aquarium](#)
- [Virtual Tour of the Boston Children's Museum](#)
- [12 Museums Offer Virtual Tours](#)
- [Virtual Disney Park Rides!](#)
- [Virtual Tour of Mars](#)
- [Students from Harvard, MIT Give FREE Tutoring to Students in Grades K-12](#)
- [Go Noodle Physical Activity at Home](#)
- [Free Live Lab Series!](#)
- [Live Storytelling, music classes, drawing lessons](#)
- [Animal Yoga with Farrington Nature Linc](#)