



# STEMtastic Summer Challenge



Summer is the perfect time of year to explore STEM (science, technology, engineering, and math) and try new things! Complete at least 20 activities then visit the GSCTX shop to buy your patch. Send pictures of your adventures to [www.gsctx.org/share](http://www.gsctx.org/share).

- ☐ Create art using crayons and the sun
- ☐ Try a new mode of transportation: boat, plane, train, bus...
- ☐ Cross three different kinds of bridges: suspension, lift, truss, arch...
- ☐ Ask an architect or builder to show you how to read blueprints
- ☐ Be an engineer and build a play fort
- ☐ Write an algorithm for making a sandwich
- ☐ Try a family citizen scientist activity with the SciStarter app
- ☐ Make a musical instrument with a rubber band to explore sound vibrations
- ☐ Find out what the SPF on your sunscreen means
- ☐ Watch for a rainbow after a storm. How does the light break into colors?
- ☐ Create a board game using math concepts and recycled materials
- ☐ Talk to someone who has a job in a STEM field
- ☐ Take a ride to watch wind towers creating clean energy
- ☐ Browse a store or your home and find fabrics that are soft, rough, thick, thin, waterproof, and sparkly
- ☐ Cook something using foil wrap, a box, and the sun
- ☐ Visit a dam or hydroelectric plant
- ☐ With an adult, use GPS to locate a geocache
- ☐ Invent an outdoor game that uses two different senses
- ☐ Make up a secret code and send notes to a friend
- ☐ Find symmetry in nature and take a photo of it or draw it
- ☐ Solve a problem with a piece of duct tape



- ☐ Draw a design for a device that makes life easier for a differently abled person
- ☐ Make a cardboard car that uses a rubber band to make it go
- ☐ Design and draw a picture of a future mode of transportation
- ☐ Explore space science by tracking phases of the moon for several weeks
- ☐ Find a local stream and determine what larger body of water it will flow into
- ☐ Propagate a plant
- ☐ Go on a fossil hunt
- ☐ Explore space science by identifying a planet or a constellation
- ☐ Ask an adult for a story about something that was invented in their lifetime
- ☐ Identify seashells you find by their scientific names
- ☐ Experiment with paper airplanes to make them go faster, farther, and straighter
- ☐ Learn how to use thunder to determine your distance from a lightning strike
- ☐ Make fingerprints on paper using a washable marker; add arms, legs, and eyes for fun!
- ☐ Make a beauty product with common items from the kitchen
- ☐ Double a recipe or cut it in half
- ☐ Build a sandcastle
- ☐ Create a safe cleaning product using common ingredients from the kitchen
- ☐ Use a cup and ruler to measure rainfall
- ☐ Learn about energy conductors/insulators and how to keep safe in an electrical storm
- ☐ Make something using wire cutters and pliers
- ☐ Explore static electricity



- ☐ Build a shelter for a fairy from found objects that will protect her from wind and rain
- ☐ Look at something up close. Use a magnifying glass, microscope, or binoculars
- ☐ Use yeast to bake bread that rises
- ☐ Upcycle a can into something fun or useful
- ☐ Visit a car dealer and ask about safety features on cars
- ☐ Hunt through a hardware store and find wire, rope, screws, and tape
- ☐ Visit a science museum
- ☐ Make an article of clothing using a new tool or method
- ☐ Identify three plants that you don't know
- ☐ Use a tool you've never tried before to fix or make something useful
- ☐ Sew something using a sewing machine
- ☐ Find directions to a favorite place by using both a paper map and a digital app
- ☐ Upcycle old newspaper or magazines into a piece of jewelry
- ☐ Pick a home appliance and compare model features in the store
- ☐ Try a fruit or vegetable that you've never tasted before
- ☐ Throw a ball and use your feet to estimate how far you threw it



Completed your 20 activities?  
Get the patch at the GSCTX shop!

