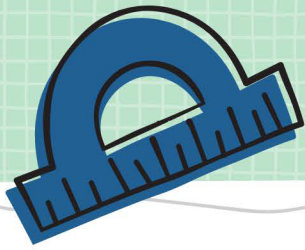


# CAMP *GoldieBlox*

## CARDBOARD CHALLENGE



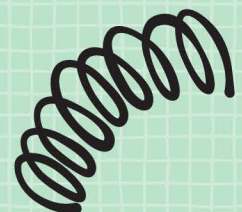
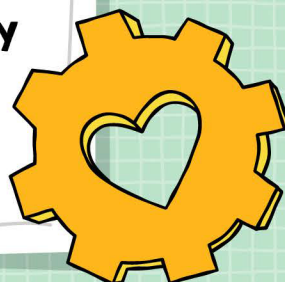
**Engineers find solutions to problems. They help build things that make the world a better place. Engineers have backgrounds in science and math but they also need to be curious, have big imaginations, and work well in a team. You're never too young to think like an engineer!**

Debbie Sterling is an engineer and entrepreneur who is the Founder and CEO of GoldieBlox.

**In this activity, we're going to challenge your creative thinking and problem-solving skills to see if you can make five different creations from cardboard, tape or glue, and scissors. Your creations could be anything from a fun toy to a folder to a jewelry stand. The options are endless! Do this activity on your own or invite friends or family members to join you.**

### FUN FACT:

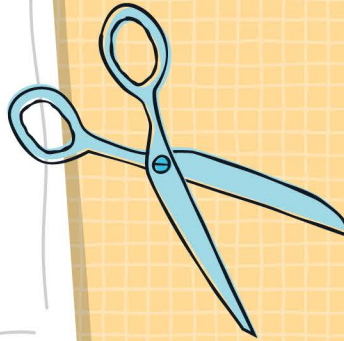
Engineers design and build all kinds of things from buildings to bridges to airplanes to toys!





## YOU WILL NEED:

- cardboard
- scissors
- tape or glue
- your imagination!



## SAFETY FIRST!

Always ask  
an adult  
for  
permission  
and  
help.



## STEP 1:

Gather up recycled cardboard in your home: think cereal boxes, toilet paper tubes, paper towel tubes, and cardboard shipping boxes.



## STEP 2:

Now think of some problems that need solving in your life or home. For example, do you need help organizing your desk supplies?





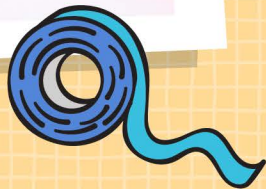
## STEP 3:

**Sketch some design ideas in a notebook. What does this product look like? What does it do? How will you build it?**



## STEP 4:

**Start to build your product. If something doesn't go as planned, that's ok! Failure is just a chance to learn something new.**



## STEP 5:

**Now test your product. Does it work as well as you imagined? Ask a friend or family member to try it out and give you feedback.**





# STEP 6:

**Modify your product design (if needed). Then present the finished product to the world. Ta-da! Now...what can you dream up next?**





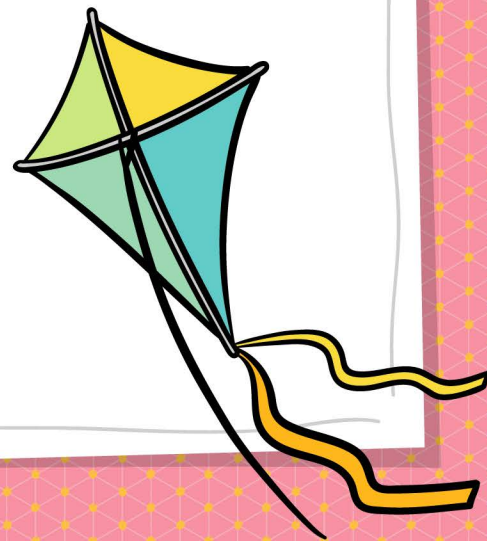
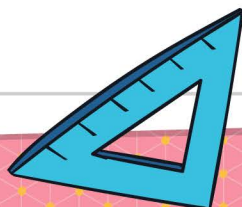
# THINK ABOUT IT!



Engineers solve problems and make the world a better place. There are many different types of engineers. Have you or someone you know ever broken a bone and needed surgery? Biomedical engineers design the tools that doctors use to help fix broken bones. Do you like playing games on a phone or tablet? Software engineers build those games. Do you play any sports? Industrial design engineers make running shoes that protect your feet and help you run fast. What branch of engineering would you like to try? How does it help make the world a better place?

If you're looking to further flex your engineering skills, here are some more design challenges. Can you build a....

- tower from marshmallows and toothpicks?
- kaleidoscope out of a paper towel roll?
- marble maze out of a cereal box?
- windchime out of keys?
- rollercoaster (for a ping pong ball) from straws?
- kite out of plastic bags?



## LEARN MORE:

Debbie Sterling's TEDx Talk  
<https://youtu.be/FEeTLopLkEo>

Physics Girl on YouTube  
<https://www.youtube.com/user/physicswoman>

Mark Rober on YouTube  
<https://www.youtube.com/user/onemeeliondollars>

