

Engineering

Sesame Street Little Discoverers: Big Fun with Science, Math, and More is a resource to help you and your child explore STEM.

Remember, it's okay to not know the answers to all of her questions. Model a sense of curiosity by saying something like, "That's a great question! I don't know the answer but let's find out together."



HELLO, FAMILIES!

Your child is full of curiosity. She is always observing, questioning, testing her thinking, and collecting information. These are important critical thinking and problem solving skills that help set her up for success in Science, Technology, Engineering, and Math (STEM).

HELP YOUR CHILD TALK ABOUT ENGINEERING

- » Engineering is the process of planning, building, or constructing something.
- » Engineers plan, build, or construct for a particular purpose or to find a solution to a problem (How can we build a bridge to get people across the river?).
- » Engineers create a plan or design before they begin a project.
- » Engineers also think about the properties of the materials they use (What will be a strong material for our bridge?).
- » Engineers test their design and then they redesign, or make changes, along the way.

TRY THIS AT HOME

Pick and choose the activities that work best for you and your child.

Let's Talk. Use engineering words as many times as you can this week! Say things like, "Can you engineer that block tower to be taller than the chair?" or "I wonder if blankets and boxes will be good materials to use to build a fort that you can crawl into." Give a high-five anytime someone in the family uses engineering words.

Design a Fort. Help set up a problem to solve by asking, "What materials in our house could we use to build a fort we can crawl inside?" Encourage your child to design and build an indoor fort using pillows, chairs, and blankets.

Build a City. Collect all kinds of materials from your house, like empty plastic bottles, egg cartons, popsicle sticks, and empty cereal boxes to engineer a "city" on top of a flattened cardboard box. Draw on the box to make roads, and glue or tape the materials on to create buildings, houses, and parks.



For more fun ideas, videos, and games, check out sesamestreet.org/STEM on your computer or mobile device.

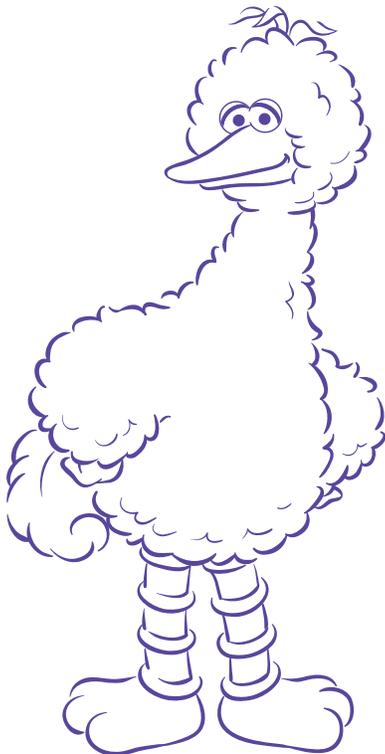


ENGINEERING

Time to Engineer!

TUBE EXPLORATION

Encourage your child to engineer a structure using paper towel tubes to solve a problem. For example, a bridge that small toy animals can use to cross over an imaginary puddle. Challenge her to think of different ways to design the bridge. Will she need more than one tube? Will she need to change the shape of the tube (squashing it so that it is flat)?



WATCH "BUILDING A DOGHOUSE"

In the video, a girl and her father decide to make a doghouse so their dog will have a place to sleep. First they create a design, and then they build the house together. Engineers build something to solve a problem, and you and your child can be engineers too!

ACTIVITY

Help your child engineer a structure for a special object such as stuffed animal or toy car.

MATERIALS

- » blocks
- » Activity Chart
- » crayons
- » stuffed animal or toy car

STEPS

1. With your child, pick an object that he would like to build a structure for, such as a favorite stuffed animal.
2. Together talk about what kind of structure he could build, such as a house. Then, think of any special characteristics to keep in mind when designing the structure. For instance, how tall or wide the structure should be so that the stuffed animal can fit inside.
3. Help your child draw a picture of his plan using the Activity Chart, and talk about his design, such as what size blocks he needs to build his structure.
4. Build the structure and see what happens!
5. After you have built your structure, talk to your child about it. What shape is the structure? How did he build the foundation? How many blocks were used? Then, look at the drawing and see if it matches his plan. Would he make any changes?



For more fun ideas, videos, and games, check out sesamestreet.org/STEM on your computer or mobile device.



Little Discoverers:
BIG FUN with science, math, and more!

Family Newsletter
Activity Chart 



ENGINEERING

Time to Engineer!



Have your child draw her design in the box below.

