

ENGINEERING TIC-TAC-TOE

Make a boat that can really float. Try different materials (paper, foil, cardboard) and discover what works best. Then see how much weight your boat can hold.

Design your own playground. What would make it special and different than other playgrounds?
Learn more about playground design [here](#).

Create a gap (between two chairs, tables, or stacks of books) that is about 12 inches (a ruler length) across. Use different materials (paper, Legos, foil, PlayDoh, and more) to create a simple bridge. How can you determine which bridge is the strongest?

Experiment with freezing different mixtures of water and salt. Try using 3 different amounts of salt. What do you notice about the amount of salt and the time it takes to freeze?

[FREE SPACE](#)

Build a car or house entirely out of edible (things you can eat) materials. Consider having [an edible car race](#)

Build a pendulum by tying a weight (a ball, a Lego, or other small toy) on a string. What do you notice about the swing when you change the length? How can you use this as a timer?

Look closely at various kitchen tools (spatula, pan, whisk, fork, etc.). How do you think they work? How could you improve them (make it better)? Could you use them in a different way or for a different purpose?
(Example: You could use a fork as a hair comb.)

[Fold and fly](#) different styles of paper airplanes. Compare how far they each fly. How can the [science of flight](#) help you design a better plane?