



ENGINEERING

ASSORTED ACTIVITIES

PINWHEELS

This simple activity is a great way to demonstrate the key concepts of mechanical energy, physics, engineering, and the renewable resource- wind. Pinwheels are a miniature version of a turbine which generates energy by using the power of the wind. Use the provided templates to create your own pinwheels for your yard!

LEGOS

Legos are great for letting kids exercise creativity and learn some fundamentals of engineering - without even realizing it! Math and physics concepts are built right into every Lego project, and through critical thinking and problem solving - amazing builds are created! Use the box of Legos to construct, create, build, design, experiment, and more! The possibilities are literally endless and so are the educational gains!

TOOTHPICKS

Creating structures with toothpicks and candy (or marshmallows, clay, fruit) is one of the best STEM activities for kids of all ages! Geometric shapes, structural challenges, finding balance, and more are just a few ways that these items can be used to explore what engineering is all about. And once you have finished, you get to enjoy a tasty treat!

POPSICLE STICKS

Popsicle sticks are a fantastic building tool! They come in all shapes, sizes, and colors. You can create houses, boats, bridges, towers, and more! We have provided you with a variety of Popsicle sticks to be used however you would like! Engineer something amazing and structurally sound using any of the provided materials or found materials in your home.

HOT WHEELS RACETRACK

If you look around, you will see Simple Machines all around you! These are mechanical devices that change the direction or magnitude of a force and make our lives easier! By using Hot Wheel cars, assorted wooden pieces, and other household items - you can explore the engineering behind wheels, axles, incline planes, screws, and maybe more depending on the materials you use. Experiment with different angles, heights, and inclines to explore gravity, speed, force, and drag! Compare multiple car designs to see if the results differ!