Introduction

This lab is designed for young girls, grades K-2 or 3. Through play with colorful gear sets, the girls should discover some of the basic properties of gears.

Supplies Needed

The experiment is designed for teams of 2. Each team needs this a gear set. There are plenty of supplies in one box so multiple teams could share a set.

Discussion

Start the session with a general discussion on gears. Have the girls try turning one gear when it is connected to a second. Which way does each turn? What if you put a chain of gears together, in what direction does each of them turn?

Try using different sizes of gears. Which gear (large, medium or small) spins the fastest? How many times around does a small gear go when a large gear turns just once?

Allow time for the girls to freely explore the equipment. Included in the kit are two different booklets. They have suggested beginning and advanced building plans. For girls who want to do more, give them one of these booklets and let them loose.