

Name: _____

Date: _____

Wheels & Levers

What Role Do Wheel and Axle Systems Have in Moving Vehicles and Devices?



Discover: Moving Vehicles With Gear Systems

Question

How can you make a vehicle that moves by using gears?

In this activity, you will use everything you have learned about **gears** to make a vehicle that uses a gear system to move.

Resources

Access the website links from the online course.

- Webpage: Types of Gears
- YouTube Video: Gear Basics
- YouTube Video: How to Assemble a Worm Gear
- Optional - Yenka Gears software
- Optional - digital camera or digital video camera
- Optional - K'nex toy construction kit that includes wheels, gears, and axles (or similar type of kit)

Instructions

- 1 Visit the webpage **Types of Gears** and read all the information carefully.
- 2 Watch the YouTube Video: **Gear Basics**. Watch the video carefully; your goal is to learn about various gear types.
- 3 Watch the YouTube Video: **How to Assemble a Worm Gear**. Watch the video carefully. It shows an example of how to build a worm gear using a toy kit.

4 Following are options for doing this activity. CHOOSE ONLY ONE!

- **Option 1: Use a building kit** such as K'nex, or similar type of kit to build a vehicle that moves using gears. Your vehicle should include at least two gears and at least two wheels. If you have a camera available, take a digital photo of your vehicle. After you have built your vehicle, skip to Step 5.
- **Option 2: Use Yenka software** to build a vehicle that moves using gears. Your vehicle should include at least two gears and at least two wheels. When your Yenka vehicle is complete, go to Step 5.

5 Share your digital photo or Yenka file in a blog post. Explain exactly how the gears in your vehicle work.



Skill Builder

How to use Yenka Gears.

How to build with K'nex using gears.

If you need to use this Skill Builder, access it from the online course.