



GEARS!

Gears are simple machines that enable us to change how fast we turn an axle. By connecting gears, we can either speed up or slow down the rate of one axle turning compared to another.

Teeth or Cogs: Points around a gear that come in contact with another gear or a chain connecting gears

Drive Gear (driver): Gear that you manually turn, it affects the connected gear

Driven Gear (or follower): Gear that is turned by the drive gear

Gear Ratio: Set of two numbers that tells us how many times one gear will rotate with relation to another when the two are connected, related to how large (how many teeth) each gear has.

GEAR RATIO ACTIVITY!

Purpose: Explore how gear ratios work

Task: Create different gear combinations out of lego pieces

Procedure:

1. Construct base to hold gears
2. Establish one gear as drive gear (connect to motor) & one gear as driven gear
3. Count number of cogs on drive and driven gears
4. Try again with different combination

	Number of cogs on drive gear	Number of cogs on driven gear	Does driven gear go faster or slower than drive gear?
Trial 1			
Trial 2			
Trial 3			
Trial 4			

