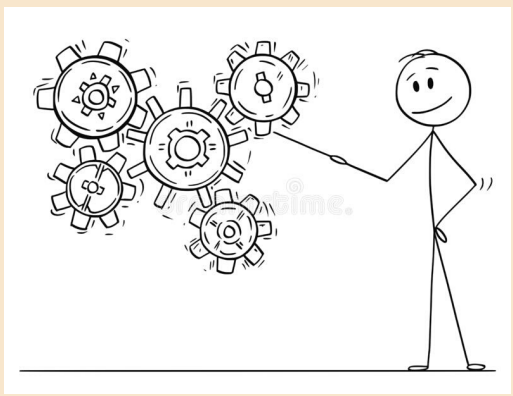
STICK GEARS CHALLENGE

STEM ACTIVITY

1 INTRODUCTION:

A gear is a tooth element,These tooths are mounted on a wheel which rotates and transmits motion. The basic function of an gear is to transmit rotary motion as well as power from one shaft to another. Gears can also be used to amplify power. Almost in every machine where speed control is needed gears are used.

2 YOUR CHALLENGE!



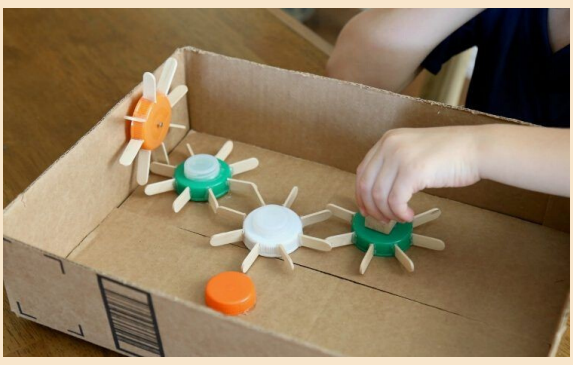
Build a series of gears out of lollipop sticks, bottle tops and cardboard. You need to start at one side of a cardboard box with your first gear and make your final gear change at theopposite end of the box.

REFLECTION QUESTIONS

3

What surprised you about the challenge?
What was frustrating about the challenge?
What about your design are you most proud of?
How does this challenge apply to real life?
What are the similarities between the designs that worked well?
If you were to do this challenge again what would you do differently?

4 THINGS TO THINK ABOUT!



How are you going to attach the lollipop sticks to the bottle tops?How are you going to make them spin? How many cogs are you going to have on each gear and how will this effect how quickly the gear turns?

5 MATERIALS

Lollipop sticks,Glue,A carboard box,Scissors,Cocktail sticks , nails or screws.