Prompt: Making Objects Move

Objective(s)

- Create a structure that will make your car/ball travel on its own without being pushed?

Activity that involves problem-solving and strategic thinking:

- Students will use materials provided to build a structure (i.e. a ramp) to make their car move
- Students will test how far and fast their car/ball moves

Standards/Objectives addressed:

- **K-PS2-2:** Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.
- **CCSS.ELA-LITERACY.RI.K.3 -** With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.
- **NGSS.K-PS2-1 -** Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.
- **CCSS.ELA-LITERACY.RI.1.9 -** Identify basic similarities in and differences between two texts on the same topic
- **1-PS4-4 -** Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance

Background knowledge needed:

- Understanding the concept of motion
- How to make a plan - sketch a design
- Ramps, wheels
- How to make things move

Materials:

- Blocks, balls, legos, cars, timer
- cardboard
- Tape to mark where ball/car lands

Prompts – questions or statements to elicit engagement

- How can you change your design to make the ball/car go faster/farther?
- How long does it take to reach a certain point?
- What will happen if…?
- How are you going to use…?

Vocabulary

- Ramps, steep, straight, trajectory, angel, speed, ruler, track, motion, force, propel

Reflection prompts

- What worked well? What part of your design made your car go fast?

- How did you test your design?