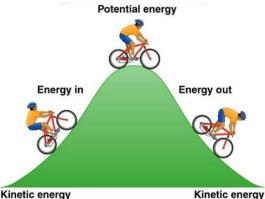
#### SCIENCE, TECHNOLOGY, ENGINEERING & MATH



# **POTENTIAL & KINETIC ENERGY (6-8)**

### **KEY CONCEPTS:**

- Potential Energy energy held by an object because of its position relative to other objects, stresses within itself, its electric charge, etc.
- Kinetic Energy energy that an object possesses due to its motion. It is defined as the work needed to accelerate a body of a given mass from rest to its stated velocity.
- The Law of Conservation of Energy states that energy cannot be created or destroyed, only changed or transferred.



# LITERACY CONNECTION:



Lois Lowry takes the concept of transferring energy to a whole new level. In <u>The Giver</u> series, it is the memories of an entire civilization that are transferred from one person to another. Don't have the book at home? You can start your journey with a read aloud <u>here</u>.

## **ACTIVITY: CHAIN REACTIONS**

Materials: <u>dominoes</u> and various objects (Don't have dominoes? You can use wood blocks, LEGO bricks, or even books)

- 1. Stand the dominoes/blocks on the short end and place them about an inch apart.
- 2. After testing a few short lines, try making larger reactions.
- **TIP**: Is the chain reaction falling too early? Try building in sections, leaving space between the sections. If accidentally bumped, you'll only lose one section and not the whole thing.

**What is happening?** Potential energy becomes kinetic as the domino falls. The energy is then transferred to the next domino in the chain.

- Engineering Challenges: Try something new with these cool builds
- Build a Spiral (shown) or other shape. Now try integrating it with a split!
- Rolling Reaction make a domino chain that bumps a ball, which rolls down a ramp and knocks down more dominoes.
- Falling Towers build a tower that collapses, on purpose!

**EXPLORE**: Find more fun challenges online at <u>Frugal Fun</u> or <u>Domino-Play</u>

#### For step-by-step instructions, watch the video at: Domino STEM Activity

This at-home educational activity is from the Literacy Coalition of Palm Beach County's literacy-based Stories & STEM program. Stories & STEM is made possible with support from Prime Time Palm Beach County, Inc., which receives significant funding from the Children's Services Council of Palm Beach County, Inc.

Having fun? Send pictures or video links of you and your Stories & STEM projects to csharkey@literacypbc.org



