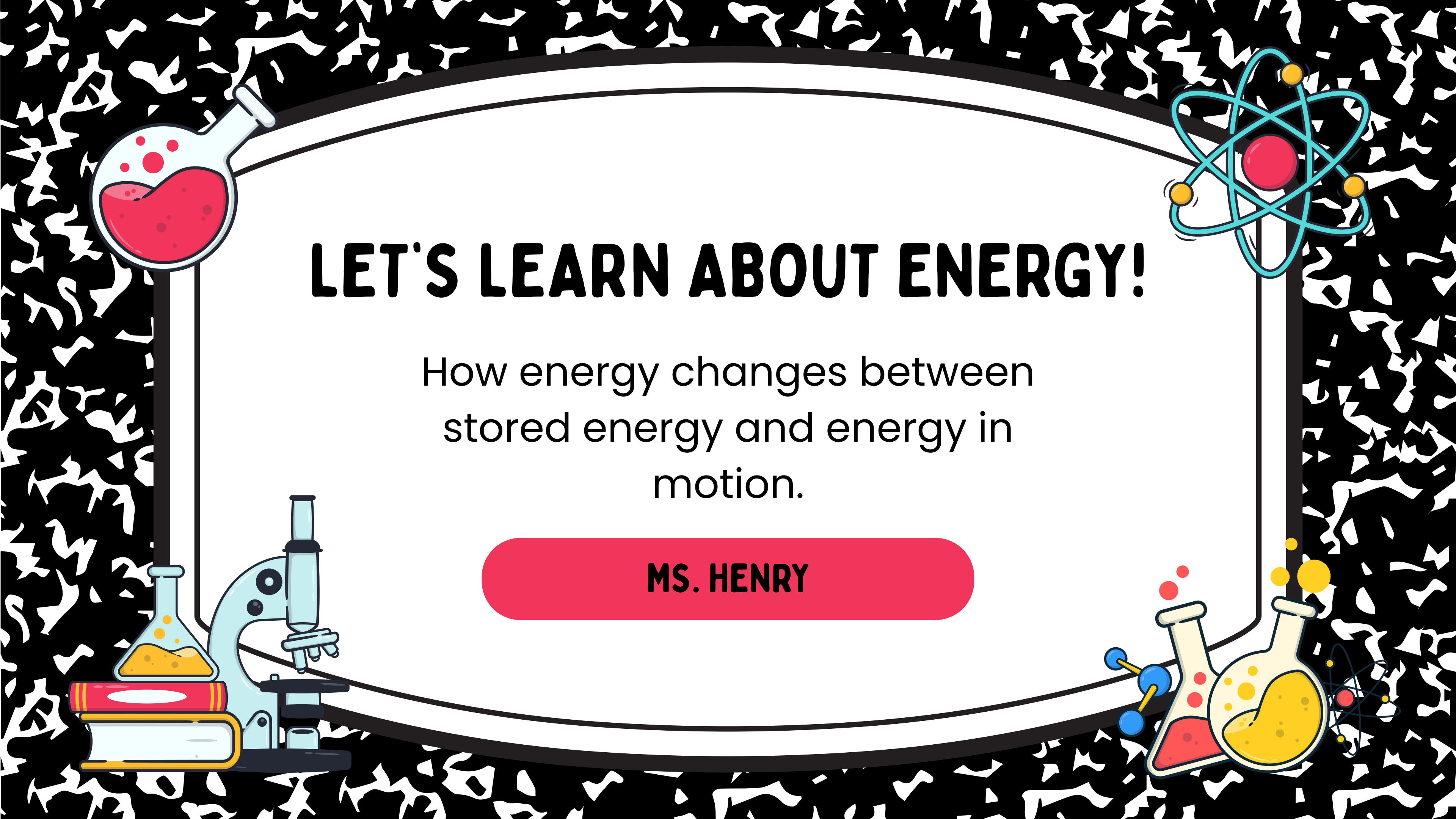




LET'S LEARN ABOUT ENERGY!

How energy changes between
stored energy and energy in
motion.

MS. HENRY

LEARNING TARGET

"I can explain how energy changes between potential and kinetic energy as an object is in motion."

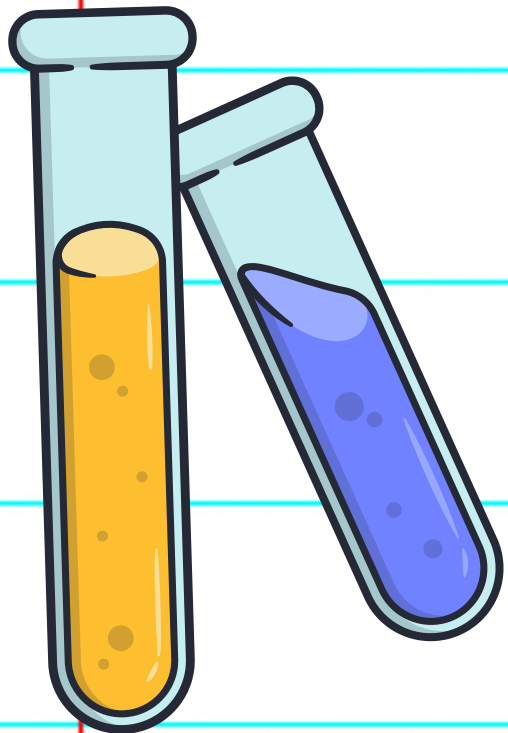


WHAT DO YOU ALREADY KNOW?

What do you know about energy?

Where do you see energy in action?

Does an object have energy even if it isn't moving?



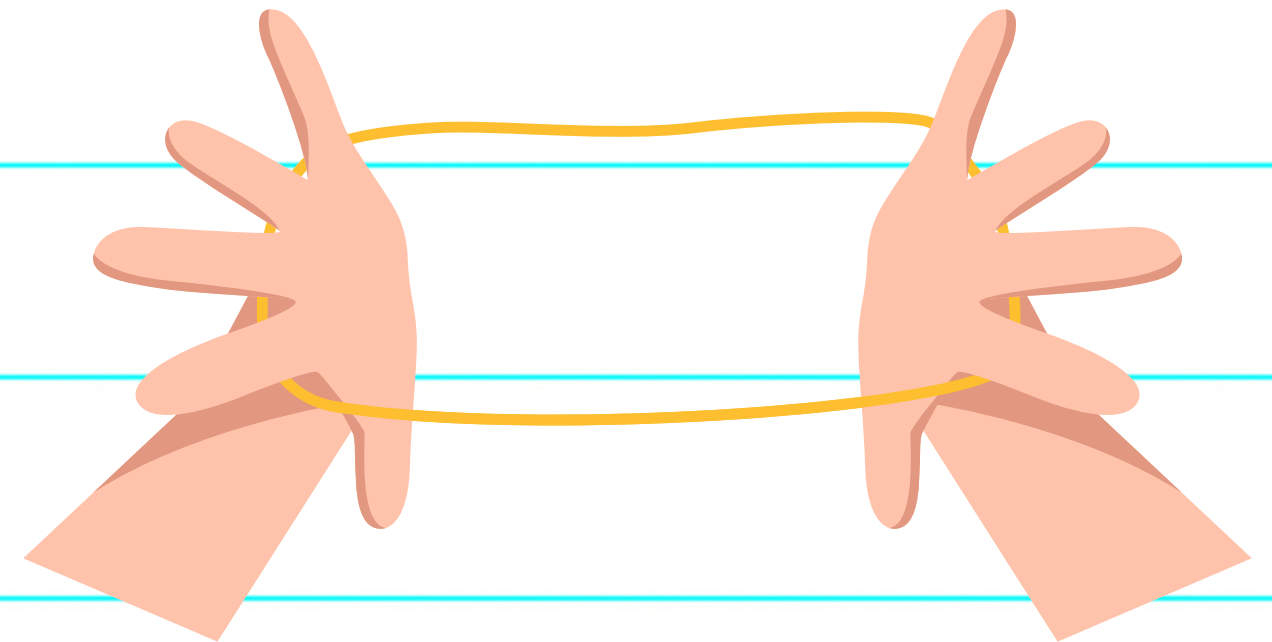
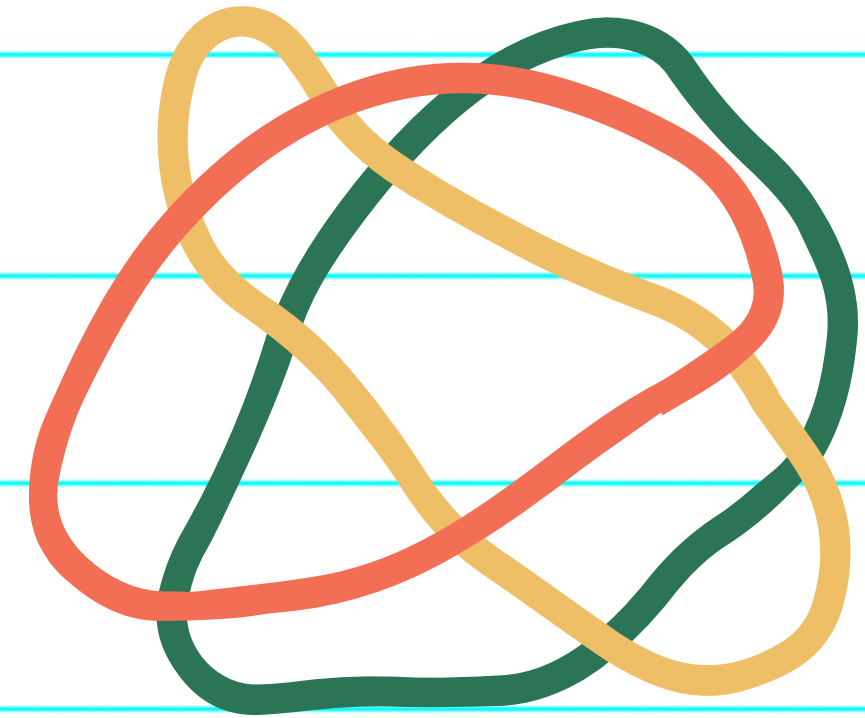
RUBBER BAND LAUNCH

BEFORE LAUNCH

- ☐ What do you think will happen when you let go?

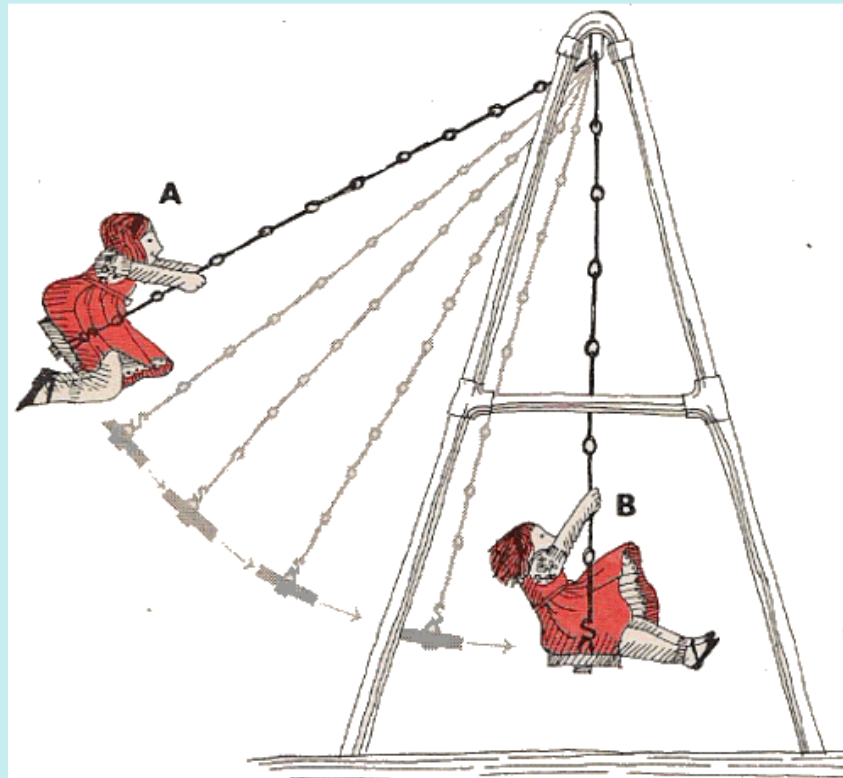
AFTER LAUNCH

- ☐ When did it have the most stored energy?
- ☐ When did it have the most motion?
- ☐ What kind of energy is it using?



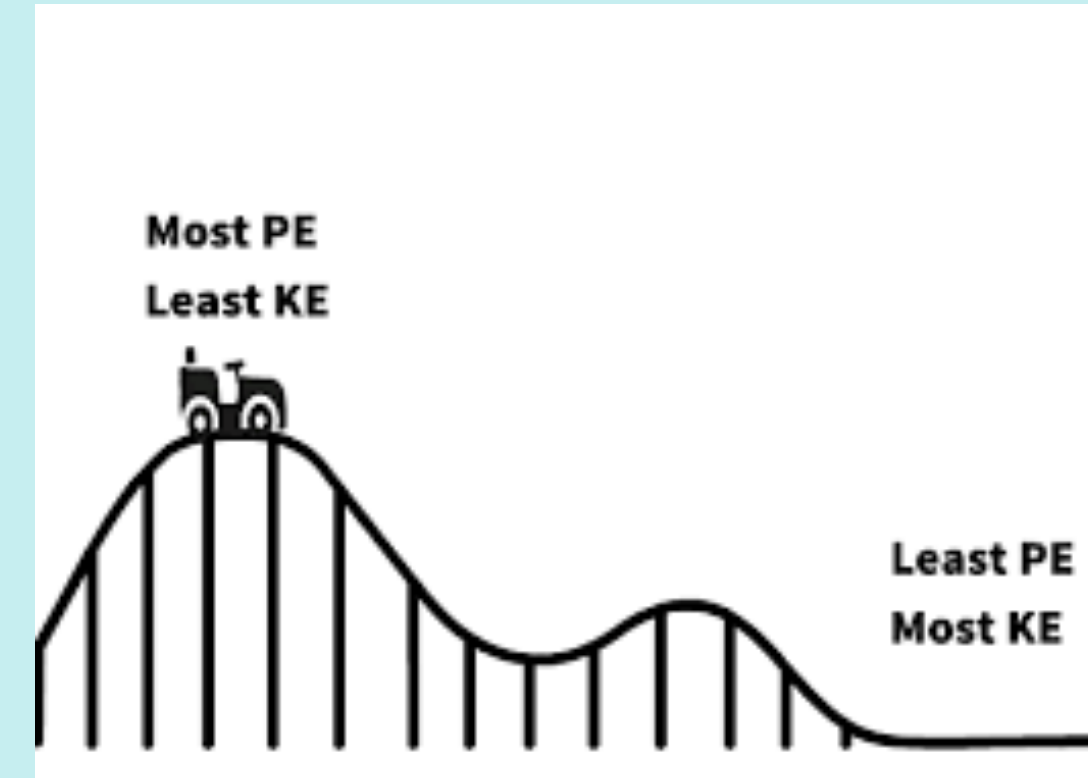
REAL LIFE EXAMPLES

SWINGING ON A SWING



Point A: Maximum potential energy.
Point B: Maximum kinetic energy.
Height = Potential Energy

RIDING A ROLLERCOASTER



Top: Maximum potential energy.
Bottom: Maximum kinetic energy.

SWINGING PHYSICS - LET'S WATCH!



[Watch video on YouTube](#)

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VOCABULARY



POTENTIAL ENERGY

The energy stored due to an object's position.

KINETIC ENERGY

The energy of motion.

ENERGY

The ability to cause or change motion.

MOTION

When an object changes its position over time.

YOUR MISSION

REAL-WORLD SCENARIOS

Determine the type of energy being used and explain why.



STEPS

1. Read the scenario
2. Decide which type of energy is mostly being used
3. Explain why in your own words

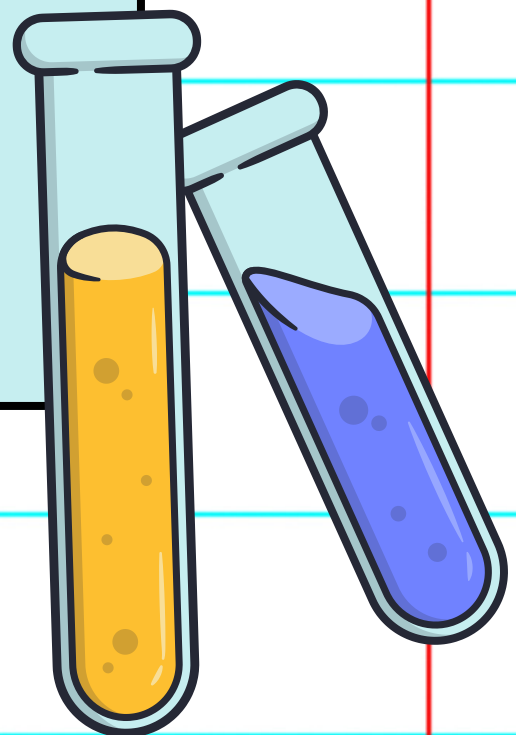
EXIT TICKET

DESIGN CHALLENGE

Design your very own rollercoaster to maximize its potential and kinetic energy.

STEPS

1. Draw and name your rollercoaster.
2. Label where the most potential energy would be
3. Label where the most kinetic energy would be



WHAT DID YOU LEARN?



1. When does an object have potential energy?
2. When does an object have kinetic energy?
3. Which has more potential energy? An object 3ft in the air or 10 ft?

GREAT WORK!

