



GRADE 6 ENERGY, MOTION & INNOVATION

Grade 6 students explore **energy, motion, and real-world problem solving** through the Elastic Car, Industrial Mixer, and Space Rover models—connecting **science, design, and innovation**.



PULL BACK RACE CAR

Focus: Explore force and motion using elastic power

Subject Connections:

Science – Energy and Motion

- ✓ Describe how potential energy (in a stretched elastic) changes into kinetic energy (motion).
- ✓ Investigate how forces affect speed and direction.
- ✓ Explore how motion can be controlled through design.

Design and Innovation

- ✓ Apply the design process: plan, build, test, and improve.
- ✓ Evaluate how design changes affect performance (e.g., speed, stability, distance).



ELECTRIC MIXER

Focus: Learn how systems use energy to work faster and meet everyday needs.

Subject Connections:

Science – Energy and Motion

- ✓ Show how energy moves through gears and motors to create motion.
- ✓ Explore how gear size affects speed.

Design and Innovation – Impact of Technology

- ✓ See how technology helps make tasks easier and faster.
- ✓ Use the design process to build a working system.



SPACE ROVER *Difficult Model

Focus: Explore how technology helps solve challenges in space exploration.

Subject Connections:

Science – Space

- ✓ Learn how rovers gather information about other planets.
- ✓ Understand the challenges of exploring space.

Design and Innovation

- ✓ Build a model designed for a specific task.
- ✓ See how technology meets real-world needs.