

**Race Car**

Customize a race car to explore different variables

Missouri Learning Standards

Science - Grade 3

MO.3.PS2. Motion and Stability: Forces and Interactions

3.PS2.B.

Types of Interaction

3.PS2.B.1.

Plan and conduct investigations to determine the cause and effect relationship of electric or magnetic interactions between two objects not in contact with each other. [Clarification Statement: Examples of an electric force could include the force on hair from an electrically charged balloon and the electrical forces between a charged rod and pieces of paper; examples of a magnetic force could include the force between two permanent magnets, the force between an electromagnet and steel paperclips, and the force exerted by one magnet versus the force exerted by two magnets. Examples of cause and effect relationships could include how the distance between objects affects strength of the force and how the orientation of magnets affects the direction of the magnetic force.]

MO.3.ETS1. Engineering Design

3.ETS1.A.

Defining and Delimiting Engineering Problems

3.ETS1.A.1.

Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

3.ETS1.B.

Developing Possible Solutions

3.ETS1.B.1.

Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

3.ETS1.C.

Optimizing the Solution Process

3.ETS1.C.1.

Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

Mathematics - Grade 3

MO.3.GM. Geometry and Measurement

3.GM.B.

Solve problems involving the measurement of time, liquid volumes and weights of objects.

3.GM.B.7.

Measure or estimate length, liquid volume and weight of objects.

3.GM.B.8.

Use the four operations to solve problems involving lengths, liquid volumes or weights given in the same units.

Language Arts - Grade 3

Speaking/Listening

SL.3.

Speak effectively in collaborative discussions.

SL.3.A.

Collaborative Discussions

Speak clearly and to the point, using conventions of language when presenting individually or with a group by:

3.SL.3.A.a.

Coming to discussions prepared, having read or studied required material; explicitly drawing on that preparation and other information known about the topic to explore ideas under discussion

3.SL.3.A.b.

Responding appropriately to discussion in a variety of settings, according to classroom expectations