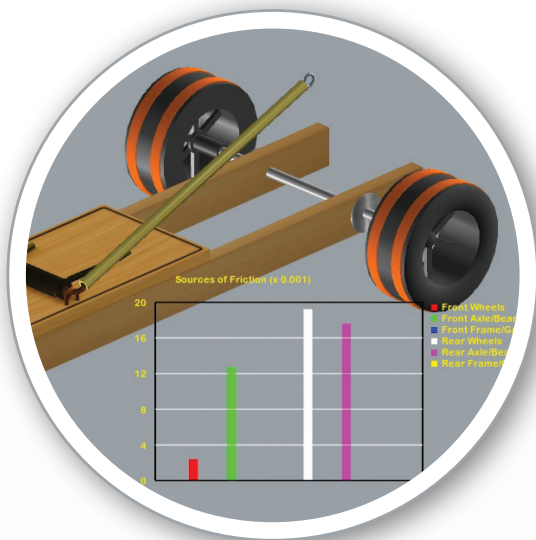
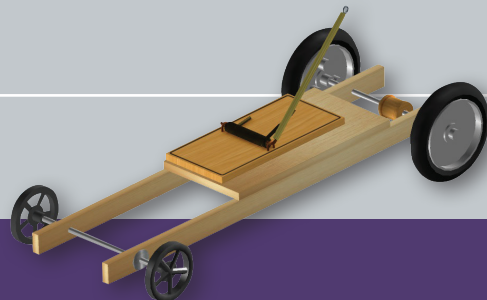


MOUSETRAP CAR 2.0

A TURN-KEY **Simple Machines** CHALLENGE



VIRTUAL MODELS

REAL RESULTS



MOUSETRAP CAR 2.0 is a fully integrated applied STEM unit, focused primarily on Simple Machines and Newtonian Physics. Students will utilize an extensive suite of web-based virtual modeling and simulation tools to design a mousetrap powered car. Purely “cloud”-based, students can access, analyze and save their designs anytime, anywhere. And they can make countless revisions, collaborate and compete throughout their district, 24/7, from school or home. Then, to ensure a strong connection between the virtual and physical models, students can output a set of custom drawings to build a physical model of their very own optimized design—and then compare the results!

Level: Middle School and High School



**WHITEBOX
LEARNING**

A Flinn Scientific Company

POWER **MECHANICAL ADVANTAGE** ENERGY **NEWTON'S LAWS**

MOUSETRAP CAR 2.0

Turn-Key Applied STEM

All four letters of STEM are fused together in one fully integrated curriculum: Standards-based science, math and engineering content, 3D design and analysis tools, a game-like simulation (test), and all the custom plans and materials necessary to build the optimized design. Key concepts covered include Power, Energy, Mechanical Advantage, Mass, Surface Friction and Acceleration.

Critical/Higher Order Thinking

Students are empowered with the tools and information to ask and answer their own questions about their own designs. This results in a cycle of what we call “informed iteration” whereby each new or modified design yields a more intense focus on the underlying STEM that drives a successful design.

Teacher-Directed Curriculum

The Teacher Control Center® (TCC) provides 24/7 web-access to a powerful suite of management and monitoring tools. Monitor time on task, quiz scores and overall student and class progress and performance. Use the TCC to set up classes and applications, adjust the content (degree of difficulty) and create and assign new engineering design specifications as often as you like. These specifications can be distributed (with one click) throughout the entire school district to create districtwide virtual competitions, promoting continuity and consistency in STEM curriculum delivery—a great motivator for learning!

Web-Based

The entire learning system is available for teachers and students, 24/7, from wherever internet access is available. Students can engineer, collaborate and compete anytime, anywhere.

INFORMED ITERATION

RESEARCH

DESIGN

ANALYZE

TEST

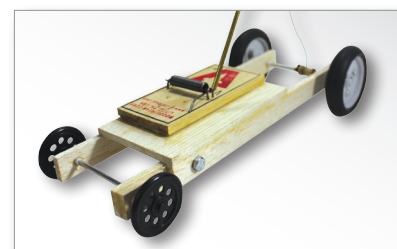
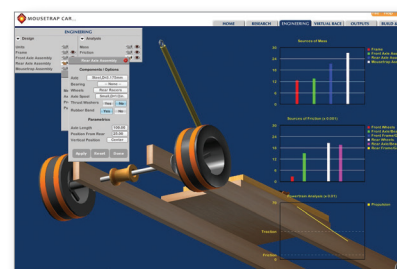
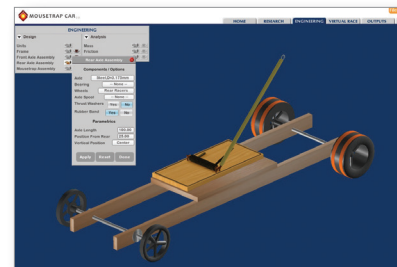
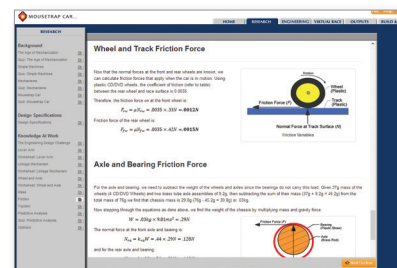
(Game-like Simulation)

No

Optimized Design

Yes

BUILD



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Take your virtual models
to the next level
by building a physical (real) model
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kits and parts.

