

Invention Explore-A-Pak

Grades 3+ | Students Served: 30

ELEMENTARY

MIDDLE LEVEL



1. What is the problem?
2. Brainstorm solutions.
3. Create the solution you think is best.
4. Test your solution.
5. Evaluate your solution.



Essential Questions

How would you define *inventing* in your own words?

Why are wheels round instead of square?

Why can designs be so different yet accomplish the same goals?

Career Connections:

- Mechanical Engineer
- Hobbyist
- Analyst
- Researcher

STEM Connections

Science

- Materials science
- Problem solving
- Modeling

Technology

- Systems
- Troubleshooting
- Materials science

Engineering

- Specifications
- Engineering design process
- Prototypes

Math

- Measurements
- Scaling
- Calculating efficiency



Sample Activity

Invent It!

Challenge and build ideas encourage students to collaborate, imagine, and invent. The possibilities with the Invention Explore-A-Pak are limitless!

Create your own challenge and build activities. Here are a few ideas to get you started:

Science: Build something that shows motion.

Engineering: Construct something that can move without being touched.

Math: Set a price per material and have students construct something on a set budget.

Language Arts: Make a claim as to why your design met the challenge and support it with evidence.

Social Studies: Create something that can get water out of a well.