



ENER-GENIUS INVENTIONS

ABOUT THIS ACTIVITY

For this marketing-inspired activity, groups of students will create and pitch their best energy-efficient invention. Students can imagine an entirely new product or a more energy-efficient version of an existing product, but there must be a reasonable possibility for it to exist (powered by magic is not an option!).

Students will draw their product or create a model and demonstrate how to use it for their presentation. They must explain how their invention can help people reduce their energy use and why their target market should invest in their product. Following all presentations, have your students discuss what they learned about energy efficiency and what makes a product more (or less) energy efficient.

GOALS/OBJECTIVES

This activity sparks critical thinking, creativity, and collaboration. You'll help your students practically apply their energy efficiency knowledge and learn how to create an engaging presentation.

LEARNING OUTCOMES:

- **SCI.9.D.5** Demonstrate the understanding that many factors play a role in finding optimal solutions to problems.
- **SCI.9.D.6** Demonstrate an understanding that seeking solutions to problems often involves employing a variety of strategies before an actual solution is determined.
- **SCI.9.E.10** Demonstrate an understanding of the basic principles of current electricity.

This unit addresses all 5 Global Competencies in Science: Critical Thinking, Creativity, Citizenship, Connection to Self, and Collaboration.

LESSON PLAN

WHAT YOU'LL NEED:

- Large white paper
- Writing/drawing/colouring materials
- Scorecards
- *Optional:* building materials if you want your students to create a model
- *Optional:* a prize for the winning team (e.g. medals, ribbons, trophies, candy)

INSTRUCTIONS:

1. Before starting the activity, go through the "All About Energy" presentation with your class. We can also deliver the presentation to your class. Contact us at hello@generation-e.ca if you're interested.
2. Divide students into groups of two to four and give them 20 to 30 minutes to brainstorm their energy-efficient invention.



3. Once each group has their product, give students time to prepare their demonstration or drawing and their pitch presentation. If you want this to be a quicker activity, give students around 15 minutes. If you're interested in having the activity span more than one period, give students anywhere from 30 minutes to an hour.
4. Print one scorecard for each group from our website.
5. Each group will present their pitch to the class, with the other groups acting as judges. Pitches should be around three minutes in length, with time for constructive feedback or questions from classmates.
6. After each pitch, the other groups will act as judges and give the product a score out of 10, using one of the provided scorecards. Energy efficiency and creativity are worth three points each, and cost and usability are worth two points each. Students can take notes during the presentation to make scoring faster, but you should give groups one minute to deliberate and score the product.

Optional: After all the inventions have been scored, the winning group will receive a prize (this could be a physical prize, having their product on display in the school, or simply bragging rights!).

7. After you announce the winner, facilitate a discussion with your students about what they learned about energy efficiency, the similarities and differences between products, and ways they can be more energy efficient in their own homes.
8. *Optional:* If you and your students feel comfortable, feel free to share the winning product with us so we can post it on the Generation E Instagram account!



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In this marketing inspired-activity, your group will create and pitch your best energy-efficient invention. Below are a few tips to help you create the best pitch possible to win over your judges.

PITCH TIPS FOR STUDENTS

1. KEEP IT SHORT

It can be tempting to list everything you know about your product because you're excited about it. Your judges are excited about it too, but the best way to "sell your product" is to highlight the most important points. Your pitch should be about three minutes long.

2. KEEP IT STRUCTURED

When you practice what you'd like to say about your product, your pitch will be more professional and compelling. Consider answering the 5 Ws + H or the 4 Ps of marketing in your pitch:

5 Ws + H

- **What is your product?** (Your drawing or model comes in handy here!)
- **Who is this product for?** (Is it for a certain age range?)
- **When would people use it?** (A certain time of day? Is it for a specific activity?)
- **Where would people use it?** (Is it designed for one location?)
- **Why should people use it?** (What makes it special?)
- **How do you use it?** (Your drawing or model is helpful here, too!)
- **How much does your product cost for the customer?**

4 Ps

- **Product:** What is your product?
(What are its special features, advantages, and design specifications?)
- **Place:** Where are you going to sell your product?
(Is it available online or in-store? What type of retailer will it be sold at or through?)
- **Price:** How much does your product cost and why? (How do factors like product quality and other comparable products in market impact your product price?)
- **Promotion:** How are people going to hear about your product?
(Where will you advertise it? What types of media will you use?)

3. KEEP IT SIMPLE

For this activity, you want to make your invention look as good as possible. Highlight the key product features and show why it's useful! A simple drawing or step-by-step diagram is an easy way to get your message across.

Just because it's simple doesn't mean it can't be fun or funny. If you show you're excited about your project, we bet your judges will be excited about it too!