



Life of a Can

The Never-Ending Story

Discovery
EDUCATION™

Classroom Activity

Novelis

Aluminum Product Advertisement

Overview

Students will investigate the properties and structure of a common product constructed at least partially from aluminum. Students will work in small groups and take on the role of a company that uses pre-existing aluminum to make new products and innovations. Each group will construct a model of their product using recycled aluminum materials. Finally, students will present their product and findings to the class in the form of an advertisement.

Grade Level: 4-5

Time required: 3-4 class sessions (45 minutes each)

- 1 class session for introduction
- 1-2 class sessions for research, construction, and advertisement
- 1 class session for presentation

Materials Needed

- **Product Planning** student activity sheet (one per student)
- **Marketing Survey** student activity sheet (one per student)
- Recycled aluminum from Activity 1 (Note: if Activity 1 was not completed, have students bring in aluminum cans, aluminum foil, etc. from home)
- Scissors
- Glue and/or tape
- Scrap paper
- Markers (optional)
- Other recyclables for construction (optional)

Procedure

1. Review the properties of aluminum that make it such a useful material. Use an aluminum can or a piece of foil as a visual example to help generate answers. Student attention should be focused on the following properties: **plentiful, strong, lightweight, combines easily with other materials, inexpensive, resists heat and corrosion, good conductor of electricity, and recyclable**. Post student responses in a place where it will be visible for student reference throughout the activity.
2. Divide the class into teams of four. Give each team two minutes to brainstorm all of the things they think can be made out of recycled aluminum. If they get stuck, remind students to think of aluminum's properties to help generate ideas (e.g.: students see that aluminum is a good conductor; this can lead to the recognition that aluminum is found in power lines).



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3. Invite teams to share out one or two of their responses.
4. Distribute the **Product Planning** student activity sheet and invite students to review their task. Students should use this planning sheet to guide their thinking and ensure that they meet all of the required criteria. Invite students to share out what they are being asked to do. Use the following points to clarify the expectations for the task:
 - Each team will represent a company that uses recycled aluminum to make a new product. Their assignment is to create an advertisement that convinces a viewer that they have a necessary product and that the use of recycled aluminum is a crucial, valuable part of their product's worth.
 - Each team will research how and why aluminum is used in their product.
 - Each team will build a model of their product made from recycled aluminum and other arts and classroom materials.

Teacher note: Some recycled materials may be sharp and not appropriate for students at this age to be cutting and repurposing. It is recommended the materials students select are approved before they begin building their model.
 - Each team will present their models and research to the class in the form of an advertisement for their product.
5. Assign products and team roles and guide students to capture this information on the **Product Planning** student activity sheet.
 - Teacher note:
 - While each student is responsible for contributing to all parts of the project, individual students will adopt a role that puts them in a leadership position for a specific part.

Research and Development Lead: oversees all areas of research about the product and the use of aluminum.

Lead Engineer: ensures that the model is built (relatively) to scale and looks as realistic as possible.

Supply Chain Engineer: responsible for ensuring that the group has all necessary materials in a timely manner.

Marketing Vice President: ensures that that the team's advertisement is engaging and convincing, while meeting the criteria for success.
 - Assign products to each team. There are dozens of possibilities; the only constraint is that teams may *not* produce another aluminum can. Depending on the age and skills of the class, students may conduct research and generate their own product suggestions, choose from the earlier products suggested by the class, or choose (or have assigned) one of the following products:



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- aircraft frames
 - automobile, truck & bus components
 - building facades/siding
 - coffee makers
 - insulation
 - iPhone components
 - jet engine components
 - large-screen TV/HDTV components
 - power transmission cables
 - refrigerators
 - ship hulls
 - shipping containers
 - shutters
 - spacecraft components
6. Invite students to use available reference materials to conduct their research and capture their work using the **Product Planning** student activity sheet. Remind students that models must be built out of recycled aluminum that the class has collected, along with any other available classroom materials.
 7. Clarify with students that they will be creating an advertisement to present their information. Advertisements may be presented as live skits or filmed, depending on time and technology availability.
 8. Distribute the **Marketing Survey** student activity sheet. Review the criteria for their advertisement and provide time for students to finalize their presentations.
 - the use/function of our product.
 - the benefit of using our product.
 - which part(s) of our product is/are can be made from recycled aluminum.
 - why we use aluminum for these parts?
 - explain why is it important to recycle aluminum.
 9. Invite students to take out their **Marketing Survey** student activity sheet when all teams are ready to present. After watching each advertisement, students will use this tool to evaluate the effectiveness of each team's advertising. The **Marketing Survey** student activity sheet may also be used as a basic rubric for assessment purposes.



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Product Planning

You and your teammates are the leaders of a company that recycles aluminum into a new product. You must create an advertisement that will convince consumers that your product is both necessary *and* environmentally-friendly.

A successful advertisement will include the following:

- ✓ A three-dimensional model to show the consumers what the product looks like.
- ✓ An explanation of what your product does and its value to a consumer.
- ✓ Demonstrate the parts of your product that are made from recycled aluminum
- ✓ Explain why aluminum is a good metal to use for your product's function.
- ✓ Explain to consumers how the use of recycled aluminum makes your product environmentally friendly.

Our product: _____

Our company name: _____

My role in the company: _____

Our product's *function and value*

- What is the use or function of our product?

- What are the benefits of using our product—why should someone buy it?



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Our product's *use of aluminum*

- What parts of our product can be made from recycled aluminum?
- Why do we use aluminum for these parts? (*Hint: think about the properties of aluminum you discussed*)
- Why is it important to use **recycled** aluminum?



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Our product:

In the space below, sketch and describe how you will build your product model. Label the different parts. Indicate which parts will be made of aluminum.

*Once you have finalized your design, build your model! Remember to be **VERY** careful if you are cutting aluminum cans; the edges will be very sharp.*





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Our advertisement:

Use this checklist to make sure that your advertisement meets all of the criteria for success:

- ☐ We explain the use/function of our product.
- ☐ We explain the benefit of using our product.
- ☐ We explain what part(s) of our product is/are can be made from recycled aluminum.
- ☐ We explain why we use aluminum for these parts?
- ☐ We explain why is it important to recycle aluminum.
- ☐ We use our model to demonstrate what our product looks like.
- ☐ Our advertisement is attention-getting and professional.



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Name _____

Date _____

Marketing Survey

Advertising is expensive, so companies want to make sure that their ad delivers the message that it's meant to! Use the survey below to help each company understand if their product's advertisement meets its goals.

Product #1: _____

After watching this advertisement, do you...

Understand the function of this product?	YES	Sort of	No
Understand <i>why</i> you should use this product?	YES	Sort of	No
Understand what parts are made of recycled aluminum?	YES	Sort of	No
Understand <i>why</i> aluminum is used in this product?	YES	Sort of	No
Understand why it is important that we recycle aluminum?	YES	Sort of	No
Have a good idea of what the product looks like?	YES	Sort of	No

Did the advertisement catch and keep your interest?	Yes	Sort of	No
Would you buy this product (if you had the money)?	Yes		No

Product #2: _____

After watching this advertisement, do you....

Understand the function of this product?	YES	Sort of	No
Understand <i>why</i> you should use this product?	YES	Sort of	No
Understand what parts are made of recycled aluminum?	YES	Sort of	No
Understand <i>why</i> aluminum is used in this product?	YES	Sort of	No
Understand why it is important that we recycle aluminum?	YES	Sort of	No
Have a good idea of what the product looks like?	YES	Sort of	No

Did the advertisement catch and keep your interest?	Yes	Sort of	No
Would you buy this product (if you had the money)?	Yes		No





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Product #3: _____

After watching this advertisement, do you...

Understand the function of this product?	YES	Sort of	No
Understand <i>why</i> you should use this product?	YES	Sort of	No
Understand what parts are made of recycled aluminum?	YES	Sort of	No
Understand <i>why</i> aluminum is used in this product?	YES	Sort of	No
Understand why it is important that we recycle aluminum?	YES	Sort of	No
Have a good idea of what the product looks like?	YES	Sort of	No

Did the advertisement catch and keep your interest?	Yes	Sort of	No
Would you buy this product (if you had the money)?	Yes		No

Product #4: _____

After watching this advertisement, do you....

Understand the function of this product?	YES	Sort of	No
Understand <i>why</i> you should use this product?	YES	Sort of	No
Understand what parts are made of recycled aluminum?	YES	Sort of	No
Understand <i>why</i> aluminum is used in this product?	YES	Sort of	No
Understand why it is important that we recycle aluminum?	YES	Sort of	No
Have a good idea of what the product looks like?	YES	Sort of	No

Did the advertisement catch and keep your interest?	Yes	Sort of	No
Would you buy this product (if you had the money)?	Yes		No



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Product #5: _____

After watching this advertisement, do you...

Understand the function of this product?	YES	Sort of	No
Understand <i>why</i> you should use this product?	YES	Sort of	No
Understand what parts are made of recycled aluminum?	YES	Sort of	No
Understand <i>why</i> aluminum is used in this product?	YES	Sort of	No
Understand why it is important that we recycle aluminum?	YES	Sort of	No
Have a good idea of what the product looks like?	YES	Sort of	No

Did the advertisement catch and keep your interest?	Yes	Sort of	No
Would you buy this product (if you had the money)?	Yes		No

Product #6: _____

After watching this advertisement, do you....

Understand the function of this product?	YES	Sort of	No
Understand <i>why</i> you should use this product?	YES	Sort of	No
Understand what parts are made of recycled aluminum?	YES	Sort of	No
Understand <i>why</i> aluminum is used in this product?	YES	Sort of	No
Understand why it is important that we recycle aluminum?	YES	Sort of	No
Have a good idea of what the product looks like?	YES	Sort of	No

Did the advertisement catch and keep your interest?	Yes	Sort of	No
Would you buy this product (if you had the money)?	Yes		No