

Amazing Innovations

4th-5th grades

Overview

In this build series, students will reflect on important technological innovations. They will consider and explain how they think the innovation has affected the way people live, as well as how it impacts their own lives. They will also imagine life without this innovation and make predictions about future innovations.

Connect to Curriculum

This build series can be part of classroom activities that involve:

History:

- Researching and examining technological innovations from a particular era or period of time.
- Identifying ways in which people lived and thought before and after common use of a particular technological innovation.

Culture:

- Analyzing the impact of technological innovations on the way people live and think.

Science and Technology in Society:

- Identifying technological innovations used in one's own community.
- Thinking critically about the future impact of technological innovations on how people live and think.

Before You Begin

Assess and encourage prior learning by:

- Introducing and defining key vocabulary: *innovation*, *effect*, *affect*.
- Focusing on one specific innovation.
- Reading nonfiction texts about how tasks were accomplished before a particular innovation became common.
- Connecting this build series to a particular historical era being studied, such as the effect of navigation devices on Renaissance explorers.
- Connecting this build series to discussions of community life, such as the use of agricultural technology in farming communities.

Build and Share

Have students build and share their models by following the steps outlined in the Challenge Cards provided with this activity.



Tip:

Consult the Quick Start Guide of this activity pack for ideas on classroom management and organization.



Vocabulary:

- **innovation:** a new device or process
- **effect:** a result or outcome
- **affect:** to influence or change something in some way



Reflect on the Experience

Encourage students to record and reflect on their models and ideas.

Extensions

After completing the build series, encourage further learning by:

- Selecting and researching a particular innovator, as well as their innovations. (Science, Language Arts)
- Creating a poster/advertisement for the technological innovation at the time it was being widely adopted to “sell it” based on its positive effects on daily life over time. (Language Arts, Visual Arts)
- Researching a particular influential piece of technology, and creating a flip book or storyboard explaining how it works or how it is used. (Science)

Facilitating Questions:

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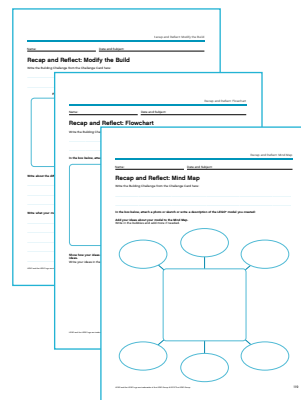
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Notes:

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Tip:

Use one of the Recap and Reflect Worksheets available in the Support Materials section of this activity pack to document the build experience.



Topic: Amazing Innovations

1 Think about



These four building tasks will help you express your thoughts and ideas about an amazing innovation and the ways in which it affects your life.

Build: Build a model that represents an innovation that has changed the way people live.

Building Time: 3-4 minutes

Share: When the building time is up, take turns telling each other about what you have built.

Keep your model on your own building plate.



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2 Remember



Now that you've thought about a specific example of an innovation, it is useful to recall a time when it has affected your daily life.

Build: Build a model that represents how this innovation affects your life.

Building Time: 3-4 minutes

Share: When the building time is up, take turns telling each other about what you have built.

Keep your model on your own building plate.



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3 Imagine



Now you will use your imagination and creativity to think about the effect this innovation has had on your community.

Build: Build a model that represents what life might be like if this innovation had never existed.

Building Time: 3-4 minutes

Share: When the building time is up, take turns telling each other about what you have built.

Keep your model on your own building plate.



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4 Conclude



Now you will build a model that sums up what you have learned so far.

Build: Build a model that represents an innovation that does not yet exist but that would make people's lives easier.

Building Time: 3-4 minutes

Share: When the building time is up, take turns telling each other about what you have built.

Keep your model on your own building plate.



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