

# INVENTION AND INNOVATION OF EVERYDAY THINGS

## A UNIT in Two Lessons

### Unit Overview:

The everyday things that we rely on in our homes were all created by someone, somewhere. Most of the items that we use to keep things clean, to communicate and to entertain ourselves today are all innovative advancements on much simpler designs and early inventions. This unit will examine an early innovation from our history.

### Unit Summary:

Students will learn that everyday items that we rely on today have their roots in earlier inventions. They will have the opportunity to discover the history of the Fresno Scraper and through the story of the development of this foundational farming tool they will learn about the phases of invention. The unit will conclude with students applying their new knowledge about the phases of invention to create with own innovation.

### Time Allotment:

Two 30-40 minute lesson plans.

### Grade Level: 6-8

### Standards

#### *History-Social Science Content Standards*

#### **Chronological and Spatial Thinking**

1. Students explain how major events are related to one another in time.

#### **Research, Evidence, and Point of View**

1. Students frame questions that can be answered by historical study and research.
2. Students distinguish fact from opinion in historical narratives and stories.
3. Students detect the different historical points of view on historical events and determine the context in which the historical statements were made (the questions asked, sources used, author's perspectives).

#### **Historical Interpretation**

1. Students explain the central issues and problems from the past, placing people and events in a matrix of time and place.
2. Students understand and distinguish cause, effect, sequence, and correlation in historical events, including the long-and short-term causal relations.
3. Students explain the sources of historical continuity and how the combination of ideas and events explains the emergence of new patterns.
4. Students recognize the role of chance, oversight, and error in history.
5. Students recognize that interpretations of history are subject to change as new information is uncovered

## Learning Objectives

Students will be able to:

**Define** Invention

**Understand** the process of developing innovative solutions to everyday problems by inventing new tools

**Describe** the Fresno Scraper, its purpose and the present-day invention that replaced it today

**Plan** their own invention using the phases of invention.

## Materials

Video:

*AJ Fox, On the Road segment for KSEE Channel 24*

<https://www.facebook.com/ajfoxwx/videos/2462636003861560>

Web (Reading):

*History of the Fresno Scraper*

<https://www.valleyhistory.org/fresno-scraper>

Handout:

*History of the Fresno Scraper Questions Sheet*

## Introduction Activity & Learning Activity #1: History of inventions - The Fresno Scraper

### Set-up:

Begin a discussion with the class about invention and innovation. Ask students to name a few inventors that they are familiar with.

Read the following quote from thriveglobal.com introduce the topic of inventions

“The invention has been given to man to advance in his own life and to teach future generations. So, maybe, to invent something is to open the eyes more and detect what is needed, what would make the world better and more beautiful. Inventing is being a visionary.”

– Published on May 8, 2019, <https://thriveglobal.com/stories/why-are-inventions-so-important/>

Tell students that in the Central Valley, we have several local people who have created and improved upon inventions that have impacted all of society in certain aspects. Students will learn learning about one invention that has improved agricultural aspects of the Central Valley.

Then, have students read (in-depth) the history of the Fresno Scraper on the Valley History website. Then have students watch the brief video about the Fresno Scraper provided by the Fresno County Historic Society (links available in materials).

Next, have students write a summary response to answer the questions from the *History of the Fresno Scraper* worksheet (listed in materials).

## Learning Activity #2: Create your own Invention

Tell students they will now have the opportunity to create their own plan for an invention. You may have students work together in small groups or work on their own for this activity.

Concept Phase:

- Think about a current, everyday problem that you would like to solve. Explain why it is a problem, what the concern is, and how the problem impacts your daily life?
- Next, conduct research on the internet or with library resources and brainstorm possible solutions to the problem.
- Then write a proposal for how to solve this problem.

Design Phase:

- Draft a plan for how to develop your invention, include items such as costs for materials, type of materials, identify resources needed).

Build Phase:

- Sketch a model or build a prototype of your invention using materials that you have readily available to you.

Allow for students to share their invention with the class or in small groups to receive feedback.

Review & Redesign:

- After completing, review your work (invention), and think about what you might do differently to improve your design.
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## Assessment

Use the following questions to guide a recap discussion, as a quiz, or a guideline for a quick writing assignment.

**Learning Activity #1:**

**Recap discussion:** Discuss the significance of inventions. Ask students for a take-away about the learning about the history of the Fresno Scraper. What was most significant thing they learned from about from the process of inventions, such as the Fresno Scraper?

**Learning Activity #2:**

**Quick write:** Have students write a reflection paper on their experience of creating an invention to solve an everyday problem. What did they learn about the issue? What did they learn about themselves through this process? Would this invention be something that they would like to pursue developing further?

## Extension Activity

**Learning Activity #1:**

**Think-Pair-Share:** Have each student identify their favorite invention that they use on a daily basis. Tell students to research the history of this item and explain how this particular invention has evolved over the years. Have students pair up to share their findings with one another. Then make time for some students to report out to the entire class on their findings.

**Learning Activity #2:**

**Marketing Presentation:** Tell students to develop a marketing strategy and materials for their invention. Tell students to consider the following while creating their marketing piece:

- Use engaging product announcements
- Provide strong product descriptions
- Use product videos
- Create product reviews & testimonials
- Make how-to details available on product page
- Come up with methods to promote the product

Have students showcase their strategy and materials to the class.

**Distance Learning Options**

- Hold discussions via video conferencing software like Zoom or Teams.
- Alternatively, require students to contribute to an online discussion board 1-2 times per week.
- Hold live stream or video presentations in which each student is required to fill 1 minute of time.
- Each group share out to class to ensure all students comprehend the content.
- Assign a short reflection essay.