

## Activity 1.1 Young Inventors

### Introduction

Inventors and engineers are problem solvers. They ask questions, make observations, and gather information about a situation people want to change.

Every object around you not found in nature was designed or invented by a person. Inventors create new products or improve existing products to meet human needs and wants.

Inventors use a step by step method called the design process to develop solutions to a problem. Many inventions you are familiar with were invented by students not much older than you are right now. Do you think you could invent something while still a student?

In this activity you will learn about young inventors and discover how they used the design process to solve a problem.

### Equipment

- Launch Log
- iPad® tablet
- Canvas by Instructure app

### Procedure

1. Take notes in your Launch Log about the design process used in the invention of the crayon holder as directed by your teacher.

**Ask** – What was the problem?

**Explore** – How did the inventor try to solve the problem?

**Model** – Draw and label the first attempt to solve the problem.

**Evaluate** – Did it work? How do you know?

**Explain** – How did other people learn about the invention?

2. Learn about other inventions by children and discuss with your class as you view the presentation.
3. All the inventions you read about started with a problem, a human need or want that the young inventors wanted to fulfill. Sometimes inventions happen by accident as in the case of the most famous ice pop, the Popsicle® ice pop.

4. Facts about the invention of the Popsicle:

- 11 year-old Frank Epperson invented "frozen ice on a stick"
- Frank left his drink with a stir stick outside
- The drink froze to the stick overnight
- The next day Frank pulled the frozen drink out of the cup using the stick
- Frank shared the treat with friends and family and called it the "Epsicle"
- When Frank had his own children, they called the frozen treat "Pop's 'sicle"
- Frank changed the name and in 1923 applied for and was granted a patent



5. Optional: View the patents for the crayon holder and the Popsicle.

### Conclusion Questions

1. What are some problems you have that an invention might solve?
2. List improvements to Frank Epperson's original Popsicle design that you have seen or would like to see.