Fundamental Question:
Is imagination the same thing as creativity?

Students will investigate the idea that creativity is more than just imaginative thinking, but involves purposeful activity, and results in the generation of something original and valuable.

Objectives
Each student will:

1. Identify and experiment with one or more of myriad creativity models and tools, such as brainstorming for generating many ideas, SCAMPER for generating new products, or concept fans for widening the search for solutions; and
2. Select (or locate) and research a famous example of creativity at work.

Before you begin
• Learn more about several creativity tools that you can use in your classroom; and
• Print out one copy of It’s a Real Problem for each student.

Suggested Sidebars:

Speaking of Creativity (Discussion Idea)
Discuss: If creativity involves imagination and imagination involves creativity, are they the same thing? Explain your answer.

Taking It to the Next Level
Think of a real-life problem in your school or community. Respond with creative solutions to the problem. Put your solutions into action.
Procedure

1. Teach (and practice with) your class some of the creativity tools about which you learned. There are many methods, but two examples of popular tools are:

   • A creative thinking process described by Paul Torrance in his 1979 book *The Search for Satori and Creativity*:
     
     **Fluency** (producing many ideas);
     
     **Flexibility** (producing ideas or products that show many different possibilities);
     
     **Originality** (producing ideas that are unique or unusual); and
     
     **Elaboration** (producing ideas that display detail).

   • Bob Eberle’s SCAMPER, a model for making change:
     

2. **Follow Up:** Distribute the *It’s a Real Problem* sheets. Go over the instructions with the students before they begin. (Because this project involves research, review possible resources that the children may wish to check for information.)
Reminder: Creativity means bringing something new into being.

**What A Difference!**

Select one of the inventions below. Find out more about how it came into being. Report your findings in a poem or as lyrics to a song on the back of this page.

Inventors: Bill Robes and Frederick Morrison
The problem or motivation: Wanted a new way to play catch.
Reaction or solution tried: Tossing pie tins.
The eventual results: Frisbee!

Inventor: George de Mestral
The problem or motivation: When hiking burrs stuck to his woolen pants.
Reaction or solution tried: Under a magnifying glass found that each burr had hundreds of tiny hooks that attached to the loops of the fabric.
The eventual results: Velcro!

Inventor: Joel Glickman
The problem or motivation: Playing with straws at a wedding reception.
Reaction or solution tried: Added some simple connectors.
The eventual results: K’NEX!

Inventor: James Wright
The problem or motivation: To invent a synthetic rubber during World War II.
Reaction or solution tried: Combining boric acid and silicone oil, which formed a strange compound.
The eventual results: Silly Putty!

Inventor: Richard James
The problem or motivation: Needed springs to support sensitive equipment on ships.
Reaction or solution tried: Came about by accident while experimenting.
The eventual results: Slinky!

Or identify another one of interest to you!

Today’s Thought: *Imagination is more important than knowledge*... — Albert Einstein, physicist