# On a Beam of Light

## A STORY OF ALBERT EINSTEIN

## **RIF EXTENSION ACTIVITIES FOR EDUCATORS**

STEAM-THEMES: SCIENCE, TECHNOLOGY, ENGINEERING, ART, MATH



## SCIENCE, TECHNOLOGY

#### A IS FOR ATOM

Want to show your students what an atom looks like? Using pom-poms and a little craft wire, you will have your students constructing atoms in no time! Visit http://kidsactivitiesblog.com/7833/atom-for-kids for easy-to-follow pictures and a kid-friendly explanation of what makes up an atom.

# SCIENCE, WRITING WORLD OF WONDER

Einstein's story shows us the value of nurturing the imagination and the capacity to wonder. Allow students time to observe what is around them; let them think of questions about their own topics of wonder and curiosity. Have them record their questions into a class list. Use that list for class discussion or writing prompts.

#### **TECHNOLOGY**

#### IT'S ALL RELATIVE

Have students watch this kid-friendly video about the theory of relativity: www.neok12.com/video/Relativity/zX580f0457675f60454c4159.htm. After viewing, have students work in small groups to develop a demonstration for the class that explains the theory.



## ENGINEERING, SCIENCE

#### **COMPASS CONSTRUCTION**

Materials: straightened paper clip, Styrofoam cup, pie plate, water, magnet

Cut the bottom out of the cup to create a flat Styrofoam circle. Magnetize the paper clip by rubbing the magnet in one direction from top to bottom 10 to 20 times. Fill pie plate with 1/2 inch of water. Place Styrofoam circle in middle of plate. Place magnetized paper clip on top of circle. After it stabilizes, the clip will be pointing north to south. Why does the magnet in a compass point north?

## **ART, WRITING**

## **BEAM ME UP, ALBERT**

Imagine that you, like Albert, are riding on a beam of light. What are you visualizing on your ride? Draw a picture that shows what you are seeing as you ride along the beam. When finished, write a poem that describes what you saw.



## MATH, WRITING

#### **MATH MADNESS**

Einstein had a funny sense of humor. Have students think about the following quotation from him: "Not everything that counts can be counted. Not everything that can be counted counts." Have students write an explanation of what they think Einstein is trying to tell us. What did he mean in that quotation?

