

## TEACHERS ACTIVITIES




### Theme:

Inventing takes imagination and hard work, but most of all it takes determination.

### Topics For Discussion:

Discuss what inventors do. Ask students if they know of anyone who has invented something. What was it? Discuss qualities a person needs to have in order to be an inventor (e.g., curiosity, willingness to take risks and make mistakes, imagination, etc.)

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Pose the question that was asked of the young people in the program, "If you could invent anything, what would it be?"

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Discuss inventions that we have now that the students' parents and/or grandparents likely did not have.

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After viewing the program, ask students where in time they would like to visit if they had a time machine and why.

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Although he was still a boy, Alistair was a scientist. Discuss the work of a scientist. What are some different areas that scientists study? What are the tools of a scientist? How does a scientist get information? Why is the work of a scientist important?

### Curriculum Extension Activities:

Brainstorm a list of inventors whose names are familiar to students. See how many of them can be paired with an invention for which they are known. Enlist the aid of the media specialist in locating some easy-to-read biographies of inventors so that students can research the contributions of these people.

Conduct a survey that addresses the question, "What do you think is the greatest invention of all time?" Have students ask all their classmates at their grade level. Make a list of the adults in the building they would like to ask and assign each one to a student (or pair of students). Prepare a take-home sheet with spaces for five people to respond to the question. Discuss with students the importance of each person being asked only once (in the event that two students were thinking of asking the same neighbor, for example). After students have returned their sheets to school, compile all the data and display the results of the survey. Students might also graph the survey data.



Go back in time for one day and celebrate a time period, e.g., the 1950s. Dress in '50s style clothing (send home a note giving parents some easy suggestions), play '50s music and learn some dances, look at pictures of famous people from the 1950s. Find out who was president of the United States and learn a few facts about those individuals. Locate clips of popular television programs from the 1950s, e.g., "Rin Tin Tin," "I Love Lucy," "Lassie," "Howdy Doody," "The Lone Ranger," "Sky King," "The Ed Sullivan Show," "Topper," "Burns and Allen," "Roy Rogers," and others. Compare topics and content with TV shows of today. Read some books to students that were written in the 1950s. (Possibilities include: *Bartholomew and the Oobleck* and *If I Ran the Zoo* by Dr. Seuss; *The Biggest Bear* by Lynd Ward; *One Morning in Maine* and *Time of Wonder* by Robert McCloskey; *Madeline's Rescue* by Ludwig Bemelmans; *Crow Boy* by Taro Yashima, and *Charlotte's Web* by E. B. White.) Share some important historical events from the decade with the students. Invite some visitors to the classroom who remember the 1950s well and ask them to share recollections with the students.



Look around the kitchen, garage, basement, etc., for small, odd objects that are even more unusual in their appearance out of their usual context. Place all the objects on the floor in the center of a circle in which the students are seated. Pass around the objects, one at a time, and have students tell how they think the object is used. After they have had a chance to examine all the objects and speculate about them, explain how each item is actually used and discuss why it might have been invented.

Ask students what they think are the most important inventions to remember in their decade or lifetime (to date) for the benefit of future time machine travelers who might come back to the present time. What would they want these travelers to learn about and see?



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If the school does not host a science fair, plan a classroom event. Have students work with partners or in small groups. Locate books that contain simple experiments or activities to help students choose a project. For each project, have students make a list of the materials they need. Utilize as many school resources as possible and ask for parent donations of other items. Students will make all projects at school. Set up a time for the science fair and invite parents and other classes in for demonstrations. Have students make posters and invitations to advertise the fair.



Assemble all sorts of materials for students to make their own inventions. (They might work individually or with a partner.) Collect such items as cardboard rolls, spools, food packaging, scraps of wood in different sizes and shapes, string, foil, buttons, styrofoam, boxes of all sizes, margarine tubs, film canisters, yogurt containers, egg cartons, and the like. Encourage students to be as imaginative as possible. Provide opportunity for them to share their inventions with the class. Take pictures of each invention with its inventor(s) and have students write captions for the photographs. Bind the pictures into a book, "Room \_\_\_\_\_'s Magnificent Inventions."



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Marilyn Sadler and Roger Bollen have written other books featuring Alistair—*Alistair in Outer Space*, *Alistair Underwater*, *Alistair and the Alien Invasion*, and *Alistair's Elephant*. Obtain copies of these books to read to the students. Discuss the character of Alistair. What words describe him? What qualities does he possess that contribute to his difficulties?

### **SUPPLEMENTARY BOOKLIST:**

A PICTURE BOOK OF THOMAS ALVA EDISON

by David A. Adler, illus. by John & Alexandra Wallner (Holiday House)

101 GREAT SCIENCE EXPERIMENTS

by Neil Ardley (Dorling Kindersley)

INVENTION

by Lionel Bender (Alfred A. Knopf)

STEVEN CANEY'S INVENTION BOOK

by Steven Caney (Workman)

RADIO BOY

by Sharon Phillips Denslow, illus. by Alec Gillman (Simon & Schuster)

MISTAKES THAT WORKED

by Charlotte Foltz Jones, illus. by John O'Brien (Doubleday)

ACCIDENTS MAY HAPPEN

by Charlotte Foltz Jones, illus. by John O'Brien (Doubleday)

SAMUEL TODD'S BOOK OF GREAT INVENTIONS

by E. L. Konigsburg (Atheneum)

HOW TO THINK LIKE A SCIENTIST

by Stephen P. Kramer, illus. by Felicia Bond (HarperCollins)

THE WAY THINGS WORK

by David Macaulay (Houghton Mifflin)

THE SMITHSONIAN VISUAL TIMELINE OF INVENTIONS

by Richard Platt (DK)

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