

SCIENCE SQUAD COMICS, ISSUE #1: ACTIVITIES AND PUZZLE SOLUTIONS

Mints and Soda Experiment

This activity should be done outdoors in a space that is easy to clean up. It will get messy and sticky!

What to do:

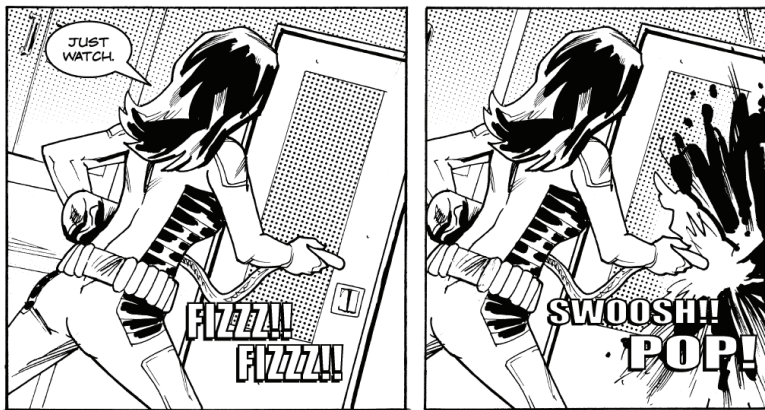
1. Take a two-liter bottle of Diet Coke (other carbonated beverages work, but you will get the best reaction from Diet Coke) and place it on a flat surface.
2. Remove the cap.
3. Unwrap a roll of Mentos mints and drop into the soda.
4. Stand back!



The soda will start to foam at a rapid rate, and then erupt from the bottle in a high pressure stream.

Why does it work?

The arabic gum in the Mentos reduces the surface tension in the soda, allowing the gas to escape more easily. This, combined with the small holes in the Mentos surface, allow the gas bubbles to form very quickly and further add to the jet effect.



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Make a CD Hovercraft

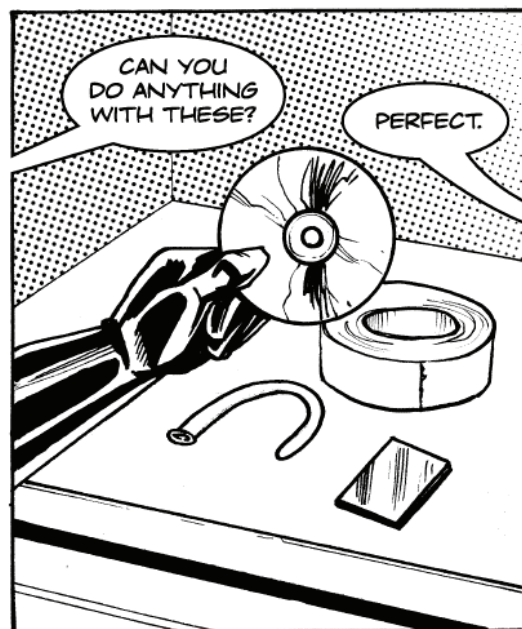
This activity should be done with adult supervision.

What to do:

1. Collect an old CD, a balloon, some craft glue, and ask an adult to help you cut the top from a sports drink bottle (the type with the pull-up spout).
2. Glue the bottle top to the center of the CD and allow 20 minutes for it to dry.
3. When it is dry, pull the cap up into the open position.
4. Blow up the balloon and pinch the neck to ensure that no air escapes.
5. Pull the neck of the balloon down over the bottle cap, and let the air out. Your CD hovercraft should be airborne!

Why does it work?

The high pressure created from the air leaving a large space (the balloon) through a small space (the neck of the balloon) is directed under the CD by the bottle cap. This forms a cushion of air that the CD hovers on with very little friction.



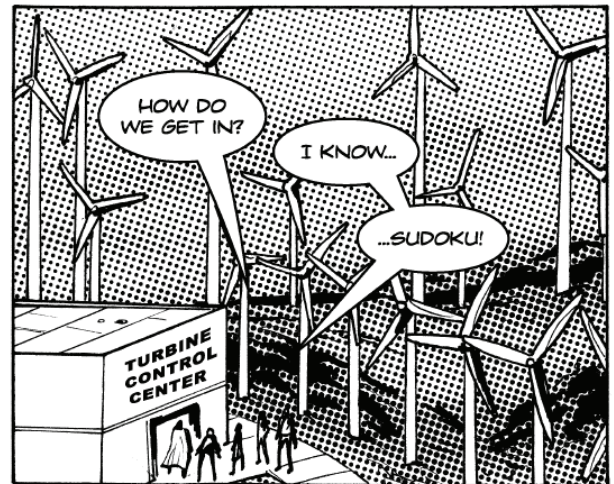
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Sudoku Security Puzzle

Can you help T-Blaze solve the sudoku security puzzle?

What to do:

Enter numbers from 1 to 9 into the blank spaces. Every row must contain one of each number. So must every column. The same is also true for every 3 x 3 square. Use a pencil to mark your guesses down as you go.



SECURITY KEYPAD								
1	3	2	6	4	7	9	8	1
1	7	9	3	8	5	2	6	4
4	6	8	9	1	2	3	7	5
7	9	5	8	3	1	6	4	2
3	4	1	5	2	6	7	9	8
2	8	6	4	7	9	1	5	3
8	1	4	7	9	3	5	2	6
6	2	7	1	5	8	4	3	9
9	5	3	2	6	4	8	1	7

SCIENCE SQUAD Career Maze!

Help our heroes successfully navigate the maze to find their career. Along the way they may discover a personal passion such as working at NASA or building a wind farm. Which of these possible careers will you choose for them?

Are you a problem-solver? Maybe you like inspiring others through teaching? Perhaps you'd like to help find a cure for cancer. Are you interested in computers? Go to www.tame.org and learn more about exciting career options!

