

Make Your Own Rainbow

Studying the weather is one of the easiest and least expensive ways to introduce your child to science. Weather is present every day - in the wintery winds, the sunny summer, and the occasional rainbow overhead. If the sun is shining right after a rain, look up and you may catch one.

But you don't need to wait for rain to show your child a real rainbow. With this activity, you'll recreate the conditions which make rainbows appear, and teach your child the science behind all those pretty colors!

What You Need:

- Sunny day
- Shallow glass baking dish
- Mirror
- Water
- Adult helper
- White paper or cardboard



What to Do:

1. Put the glass baking dish flat on the ground or a table.
2. Place the mirror in the dish. Lean it up against one side.
3. Turn the dish so the mirror faces the sun.
4. Add water until the dish is about half full.
5. Have the helper hold up the paper at the end of the dish away from the mirror and move it around slowly. Watch for the sunlight bouncing off the mirror.

What Happened?

A rainbow appeared! The water in the dish bent the sunlight. Even though sunlight looks white, it has colors in it. And when the light is bent, it breaks up into red, orange, yellow, green, blue, indigo (a purplish color) and violet. This is called refraction. It's how white sunlight puts a rainbow on the paper. After a rain, lots of small drops are still in the air. When sunlight hits the drops, the light bends to make a rainbow, just like the rainbow you made.

Activity reprinted with permission from "First Science Experiments: Wonderful Weather," the book that answers kids' questions about snow, sun, and everything in between. By Shar Levine and Leslie Johnstone (Sterling Publishing 2005).

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