



Exploration15 min

Hands-On Activity30 min

Activity Prep

In this mini-lesson, students discover how water acts like a prism, splitting white sunlight into all the colors of the rainbow. In the activity, Chasing Rainbows, students create their own rainbows using cups of water, sunlight, and plain white paper.

Number of students:

30

Blank Paper (8.5 x 11")

8 sheets

Clean-up Supplies (Eg. Paper Towels)

1 roll

Crayons

Details ▾

Each group needs the colors of a rainbow (red, orange, yellow, green, blue, and purple). Colored pencils also work.

Pitcher

Details ▾

For filling cups with water.

Clear Plastic Cups (10 oz)

Details ▾

Avoid cups with frosted or ridged sides.

Index Cards (3x5)

30 cards

Chasing Rainbows(Grades 2-3) printout

Print 30 copies

**Chasing Rainbows (Grades 4-5)**

printout

**Print 30 copies****Chasing Rainbows (Grades K-1)**

printout

**Print 30 copies**

For this level, we have also created a script for you to use when leading your class through the activity.

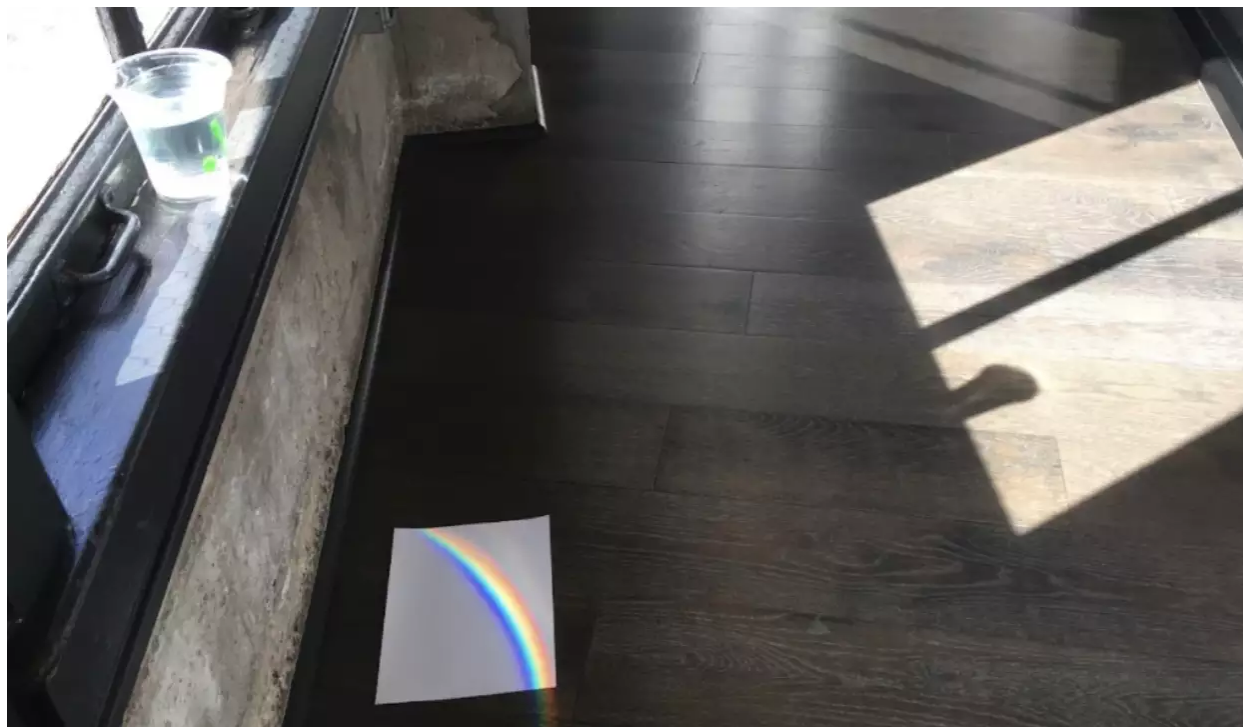
**Prep Instructions**

You will need a sunny day and access to water for this activity.

We recommend students work in groups of four. Homeschool students can work on their own.

**Watch This Video**

**This video** shows how to set up a cup of water so that sunlight passing through the water separates into rainbow colors.

**Find A Sunny Spot**

Make sure that your chosen location will be sunny at the time of day that you plan to do the activity.

If you are working with a class, make sure each group will have space for their own glass. If you can't find a place that will accommodate students working in groups, you can opt to do the activity as a demonstration and encourage students to try it at home.

### Do A Trial Run

Before you try this with a class, do a trial run in your chosen location or in another sunny spot.

- Set up a cup as shown in the video and look for the cup's shadow. (If you see the shadow, you know the cup is in sunlight.)
- Fill the cup with water and watch for wavy lines of light that have passed through the water.
- Put a piece of white paper on the floor where you see those lines and wait for the water to settle.
- If you don't see colors, try tilting the cup away from the light, just a little.
- Pay attention to shadows as well as light. You'll get the best colors if the light passing through the cup falls in a shadow, not in the light.

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