

Sun Prints as a Measuring Tool

Controlled variables, timing and measurement, and comparing results across trials.

AGE RANGE

2nd grade and up

TIME NEEDED

About 20 minutes per child

THE BIG IDEA

Cyanotype paper turns blue when it is exposed to strong sunlight, and the longer it is exposed, the darker the blue gets. That makes it a simple, visible way to test how timing changes a result while everything else stays the same, a real controlled experiment you can do on a sunny afternoon.

WHAT YOU'LL NEED

- ☐ Cyanotype paper (included with this kit), kept in its dark bag until you are ready to use it
- ☐ A few small flat objects from around the house or yard: leaves, keys, lace, cut paper shapes
- ☐ The exposure log sheet (included)
- ☐ A shallow tray or dish of water for rinsing
- ☐ A timer (a phone works fine)
- ☐ A sunny spot outside

A few things to keep in mind

Keep the paper in its dark packaging until you are ready to use it, direct light will start turning it blue right away. Wash hands after handling the paper, and do not put it in your mouth. An adult should supervise the rinsing step and being outside in direct sun, normal sun safety (hat, sunscreen) applies.

STEPS

1**Set up in the shade first**

Arrange your small object on each of the four paper squares while you are still indoors or in the shade, so the paper does not start reacting before you are ready. Try to use the same object in the same spot on all four squares, that keeps the test fair.



PHOTO GOES HERE

Photo: objects arranged on your paper squares

2

Make a guess

Before you start the timer, guess which square you think will turn out darkest and which will turn out lightest.

3

Time four different exposures

Take the squares out into direct sun for 1, 2, 4, and 8 minutes, using your phone timer for each one. Bring each square back inside as soon as its time is up.



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Photo: your paper in the sun, timer going

4

Rinse right away

As soon as each square's time is up, rinse it in your water tray. This stops the reaction and shows you the real final color.

5

Lay them out and compare

Once all four are rinsed and drying, line them up from shortest to longest exposure and see the pattern for yourself. Fill in what actually happened on your log sheet next to your earlier guess.



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Photo: your four finished prints side by side

TALK ABOUT IT

- What was the one thing you changed between the four squares? What stayed exactly the same?
- Was your early guess right? What surprised you?
- What do you think would happen if you tried this on a cloudy day instead?