DIY Sunprints

Learners will use sunlight to create a design on a piece of construction paper.

Recommended Age: 5+ years old
Time needed: 5-10 minutes to set up, 2+ hours to wait, depending on sunlight

What You Need

- Dark colored construction paper
- Flat objects with interesting shapes, such as
    - Natural materials (leaves, flowers, shells)
    - Cookie cutters
    - Small toys
    - Coins
    - Coasters
    - Beads
    - Buttons
- Heavy objects like rocks to hold the paper in place; or you can use clear tape
- Optional: Markers, crayons and/or colored pencils

What You Do

- Gather your materials and construction paper, and find a sunny spot outside. Try a couple different colors of paper. You can use your sidewalk, a table outside, a deck, or front steps as your workspace.
- Arrange the objects however you want on the paper. You can create a design, a pattern, or a scene. Use heavier objects or tape to hold down the paper and things like leaves and flowers so they don't blow away if there is any wind. Leave the paper and objects laying in the sun for 1.5-3 hours; the length of time depends on how sunny it is.
- Remove the objects from the paper and see the design the sun helped them make!
- Optional: Use crayons, markers, or other art supplies to add to your design.

Tips for Adults

- Remember, it's just the silhouette of the object that will leave a print. So if you put one object on top of another, that top object won't show up. This is hard for some kids to grasp, so be patient. You can even let them try it on one paper to see for themselves.
- Create your own sun print!

What's Going On?

Colors fade and plastics degrade because, over time, they're being ripped apart by sunlight's high energy UV light. When certain molecules absorb UV light, the light provides enough energy to break some chemical bonds, destroying, or at least rearranging, the molecules in a process called photo-degradation. That's a problem for pigments and dyes which only work in the first place because their specific chemical structures reflect certain colors of light. Destroy those structures and they aren't going to reflect light in the same way anymore.

From SciShow.com

Learning and Skills Connection

- **Thinking creatively and imaginatively:** Envisioning possibilities, solutions, and forms of expression; having hunches; thinking outside the box; problem finding and solving
- **Being open to possibilities:** Expressing interest, wanting to explore, taking things apart, trying things out, asking questions
- **Envisioning:** Picturing in the mind's eye, imagining, spatial thinking, applying abstract thinking

Doing STEAM with Kids

STEAM stands for Science, Technology, Engineering, Art, and Math. There are lots of ways you can explore these letters, apart or together. Ask your child to make predictions, describe what they see, and to imagine possibilities and solutions. Don't worry so much about the "right" answer. Developing curiosity, and problem-solving skills are important first steps to doing STEAM!