

“In Outer Space”

Module 7, Sun and Shadows

The logo for "EXPLORE IT" is enclosed in a black rectangular border. The word "EXPLORE" is in a bold, sans-serif font. The letter "E" is replaced by three horizontal lines. The letter "O" is a solid green circle. The letter "R" has a purple dot on its upper right curve. The word "IT" is in a smaller, regular sans-serif font.

Prompt:

In this activity, we are using the sun to do two different projects! This activity has two parts: making sun prints and tracing shadows. You can do one or both, as you see fit.

- *Sun Prints.* Use sunlight to create a design on a piece of paper. Arrange your materials however you like on a piece of paper and leave in the sun. Check back later to see how the sunlight changed your paper. What do you think will happen?
- *Tracing Shadows.* Have you ever noticed how many shadows you see everyday? What shapes do they make? Use toys or other things around your home to make interesting shadows on a paper. Create a picture by tracing the shadows you see.

Note: You will need to do these activities outside on a sunny day. If you and your child can't play outside today, try one of the activities from [“50 Ways to Play”](#) or do one of your favorite activities from another day again.

Materials:

Art Supplies:

- Colorful construction paper
- Crayons, markers, or colored pencils

For Sun Prints:

- Small rocks or heavy objects to weigh down paper or lighter objects to keep them from blowing away in the wind
- Flat objects with interesting shapes. Some suggestions include:
 - Natural materials (leaves, flowers, shells)
 - Cookie cutters
 - Small toys
 - Coins
 - Coasters
 - Beads
 - Buttons

For Tracing Shadows:

- Toys or objects that your child can trace the shadows of. Things that stand up on their own and have interesting shapes work best. Some suggestions include:
 - Toy figurines or vehicles
 - Blocks or building toys
 - Cups
 - Small house plants

Instructions:

To begin, read each prompt with your child. Help them decide which project they want to start with. We recommend starting with sun prints first, and tracing shadows while you wait for prints to be ready.

For Sun Prints:

1. 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.
2. Encourage your child to arrange the objects however they want on the paper. They can create a design, a pattern, or a scene. Use heavier objects, such as rocks, to weigh down the paper and things like leaves and flowers so they don't blow away if there is any wind. Check out the Resources section of this activity for ideas.
3. Leave the paper and objects laying in the sun for 2-3 hours.
4. Invite your child to remove the objects from the paper and see the design the sun helped them make!
5. Optional: Encourage your child to use crayons, markers, or other art supplies to add to their design.

For Tracing Shadows:

1. Gather your toy(s) or object(s), paper, and drawing materials. Find a spot outside that your child can sit and lay a paper flat on the ground or a table.
2. Invite them to place their toy(s) or object(s) next to their paper so each one creates a shadow on the paper. Encourage them to experiment moving the object closer and further away from the paper. Have a conversation with your child about the size and shape of the shadow on the paper and if they notice any changes when they move it around.
3. When your child has placed the objects the way they want on the paper, invite them to trace the shadows they see. Encourage them to add more tracings by moving around the object they are using or adding different objects.
4. Optional: Encourage your child to use crayons, markers, or other art supplies to add to their design. And then make more!

Resources:

Need Inspiration? Check out these designs made by your *Explore It* guides.

Sun Prints



Shadow Tracing



Extensions:

If your child needs more challenges to go along with this activity:

- Challenge them to come up with a story about the designs they made. Work together to write it down.
- Invite them to make a frame for their pictures with construction paper or cardboard.
- Turn some pictures in cards and write letters together to send to family and friends.
- Find some sidewalk chalk and check out [this activity](#) from Boston Children's Museum about the ways shadows may change throughout the day.

Together with your child, go to the "In Outer Space" topic on Flipgrid and share their designs.