Fun at Home with Preschoolers: Play with Light and Shadow

Young children often like to find out about the sun, the moon, and the clouds in the sky. In any season, help your preschooler dress for the weather, put on sunscreen, and then turn your yard or the park into an outdoor science lab!

Everyday sky activities

- Before going outside, talk with your child about things you both have noticed about the sky. Share books that mention the sky. Carolyn Lesser's "What a Wonderful Day to Be a Cow" is a good example.
- When the sun is not overhead, lie down and look up at the sky together. Remind your child to never look straight at the sun, even when wearing sunglasses! Talk about the colors, clouds, and flying things that you both see. Repeat the activity on overcast, misty, or snowy days. Bring paper, pencil, and a clipboard to sketch clouds while lying down.
- Try the same activities at night. Look for the moon, stars, constellations, and clouds. Children can't observe the night sky during the preschool day. That means nighttime investigation can be a special way for you and your child to learn together.

Sunny day activities

- Help your child make chalk outlines of shadows cast by trees and other objects. About 30 minutes later, look at your outlines again and talk about what has happened to the shadow. Make new outlines in a different color. Check again 30 minutes later. Each time, notice where the sun is in the sky. Ask your child, "What do you think is happening?"
- Help your child create pictures with your own shadows. Suggest challenges: "Can we make our shadows hold hands even if my hand doesn't really touch yours?" "How can you make your shadow get shorter?"
- Bring along clear or translucent objects like plastic containers, and some items that block the sun, such as an umbrella or cardboard tubes. With your child, explore what happens when you try to make shadows with these objects. Does a glass of water make a shadow? How about an umbrella?
- On a warm day, set out a bucket of water and brushes. Paint the sidewalk, walls, trees, and other objects with your child. After a few minutes, invite them to notice places they painted that have begun to dry. Your child will probably see that the brush strokes dry faster in sunny areas than in the shade.
- Ask a librarian to help you find books about sunlight, shadows, and nighttime to share with your child.

Any opinions, findings, conclusions, or recommendations expressed in this tip sheet are those of the author(s) and do not necessarily reflect the views of the Illinois State Board of Education.

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