



## Shadow Play

### Activity:

Autumn is a great time to notice how the shadows from the sun on earth are changing. Shadows become longer starting in the fall. In the morning or afternoon, trace your shadow at the same time in the same place with a piece of chalk over a couple weeks. If your child is not familiar with playing with their shadow, encourage and allow time to make observations. You can reinforce shadow play with a flashlight as well.

### Questions to ask:

What is making the shadow?

*(It takes three things to make a shadow; a light source, something to block the light and a surface to see the shadow. In this case the sun, a body and the sidewalk are making the shadow.)*

Why is the shadow bigger or smaller than the person making the shadow?

*(The angle of the sun's rays on the body makes the size of the shadow.)*

Why does the position of the shadow change during the day?

*(Depending on the age of your child, you can explain it two different ways. For the younger child, you can say that the position of the sun appears to move throughout the day as shown through its shadows. For the older child you can say that the Earth has rotated throughout the day, therefore the shadows from the sun are in different positions.)*

Do you like to play in the sun or shade? What feels different in the shade than the sun?

*(The sun heats up the surface of the Earth and shade feels cooler because the sun's rays are blocked or diffused.)*

