

STEM

starts now

How much light?

Recommended Age: 42-47 Months

STEM concepts: Science (physical science), Technology (simple tools), Engineering (engineering), Math (shapes and spatial recognition)

Materials: flashlights, clear containers, blocks or solid objects, wax paper

What to do: This activity will expose your child to the idea of shadows and that objects allow different amounts of light through. First take the flashlight and explain the parts to your child. The batteries give the flashlight electricity to make light. Next take a clear container and shine a light through it. Observe and discuss what the light does. Shine the flashlight at the wax paper and observe it. Next, shine the light at a solid block or object. Observe what it does. Next pull the flashlight away from the three objects and look past it. Do you see shadows?

Language and Communication: When exploring the different objects it is important to use the science terms. When shining the light through a clear container. Talk about it being "transparent". Explain, "transparent means light can travel through." When shining the light at the wax paper point out that the wax paper is "translucent". This means that some light comes through. While experimenting with the block or solid block, explain that the object or block is opaque. When you move the light away from the objects ask, "What happens? What do you see now?" Encourage the word shadow into the conversation and ask what shadows are.

Expand the Activity: Challenge your child to find other objects in the house that are transparent, translucent or opaque.

