

STEM

starts now

Indoor Shadows

Recommended Age: 42-47 Months

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

Materials: flashlights, different objects and toys

What to do: First explain the parts of the flashlight and what a flashlight does. Explain that the flashlight has batteries that provide electricity to make light. Begin placing objects or toys in front of the flashlight on the floor. Show your child that doing this creates a shadow on the wall or floor behind it. Move the object or toy closer and further and encourage your child to see what happens and what is different about the shadow behind it. Next move the flashlight and leave the object in place. Observe what happens.

Language and Communication: Talk about the size and shapes of the shadows. Discuss how the shadow changes in size and shape the further or closer it gets to the light. Talk about shadows are formed when the light is blocked making the objects opaque. Try an object that is translucent (some light goes through) and see if it makes a shadow. Talk about that shadow.

Expand the Activity: Can you build the objects or toys to change the shadow into a new shape or design? Do this by stacking the toys. Challenge your child to make a heart out of action figures or a house out of barbie dolls.

