App State Math and Science Center, & Watauga County Public Library presents

LIGHTS AND SHADOWS
Take and Explore Kits!

Use a phone to take a picture of the QR code to access videos to guide you through your lights and shadows investigation!

Activity 1
Trace your Shadow
Safely with an adult or guardian go outside on a sunny day and trace your shadow on the sidewalk or driveway using the chalk provided in your bag.

Observe your shadow, what do you notice. What do you wonder.

Stand in the same spot doing the same position at different times during the day. Have a friend or family member trace your shadow.

Notice what happens to your shadow, notice the Sun's position in the sky in relation to your shadow.

Activity 2
3D Object Shadow
Use the modeling clay and toothpicks in your kit to create a 3D object.

Place your 3D object on a sheet of white paper.

Turn off the lights or go into a dark room and shine your flashlight on the object at different angles.

Notice what happens to the shadow of your object as you move the light source around.

Activity 3
Puppet Show
In your bag you will find a handful of colorful animals and popsicle sticks. Take the backing off the animals and stick on the popsicle sticks.

Write a short story or fable and create a puppet show with the animals provided. Using some of the materials provided create a puppet show theater (popsicle sticks, and the napkin).

Hold the light at different angles and different distances from the animal cutouts to make their appearance seem larger or smaller.

Share
If you take pictures of you completing any of the activities or even film your puppet show we would love to see them!

Please share them by emailing, photos or videos to Judith Winecoff at JWinecoff@arlibrary.org.