



Project Exploration creates transformative learning opportunities for youth underrepresented in the sciences --particularly students of color and girls -- by equipping them with the skills, practices, and mindset needed for a lifelong pursuit of learning. STEM@Home makes activities around science, technology, engineering, and math accessible and fun to do at home. This STEMbook activity, resources, and more are available at www.projectexploration.org/stemathome.

In this activity, you will:

Explore the Earth's movement around the sun.



Supplies Required:

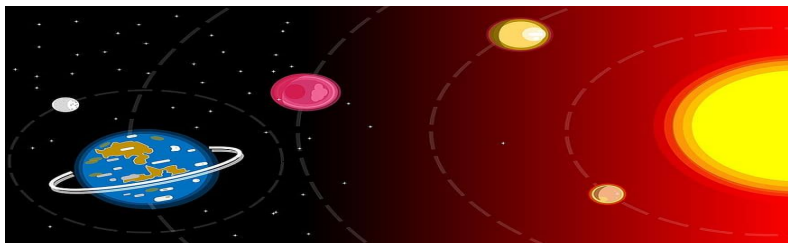
Different colored chalk
Sunny outdoor area

Video

Follow the Sun: <https://tinyurl.com/p43pnwte>

Overview

As the sun moves across the sky, your shadow will move too. We see a shadow when your body blocks the sunlight. The shadow position will change based on the Sun's position in the sky. Sundials, which can be used to tell time, work by casting a shadow as the sun moves across the sky. The sun follows the same pattern each day, but the shadows are different, depending on where the Sun is located in the sky. The Earth revolves, or travels around, the Sun, and also rotates around its axis. This is what causes the seasons and day and night!



Instructions

1. Find a sunny place to stand.
2. Have a friend trace around your shadow with chalk.
3. What do you think will happen if you check on your shadow a few hours later? Return to your tracing later in the day.
4. Stand in the same place and then trace your shadow again, with a different color of chalk.
5. What is different about your two shadows? Why do you think this happened?

Additional Resources

1. Meet the Sun: <https://tinyurl.com/5kne3vr3>

Share It Out

Share on social media: Record a video or take a picture of your activity and post the results online using the hashtags:

#SunShadow
#ProjectExploration
#StemAtHome

Tag a friend and challenge them to do it, too!

For more activities like this one, go to www.projectexploration.org/stemhome. If you're interested in learning more about Project Exploration and our free events, programs, and activities, please find us on social media and be sure to follow!



www.projectexploration.org