

SHADOW SATURDAY

TODAY'S CHALLENGE: MAKE & FOLLOW SHADOWS

AGE GROUP: ALL AGES!

CHALLENGE: PREK - GRADE 2

Explore shadows! Notice your shadow and then see **what other things can create shadows**. Try out a few toys and things you can find in nature (leaf, pinecone, stick).

Draw a silhouette of one of the items, or ask a parent or friend to trace your shadow with sidewalk chalk.

MATERIALS

- Sidewalk chalk
- Paper
- Pencils, crayons, markers
- Toys or natural objects
- Light source—sun on a sunny day or a lamp inside

GUIDING QUESTIONS PREK - GRADE 2

- Where does the object need to be, **relative to the light**, to make a shadow?
- Why is the shadow a **different size** than the item casting the shadow?
- What might be the **best time of the day** to explore shadows?
- What might be the **most difficult time of day**?

SHARE YOUR PROJECTS WITH US:
#OregonSTEMWeek



CHALLENGE: GRADES 3 - 5+

Make a sundial! Observe how the position of the sun in the sky changes your shadow. **Mark where you are standing** with chalk, a rock, or a stick. Mark the top of your shadow and record the time of day.

During **different times of the day**, return to your spot and notice how your **shadow position changes as the sun changes**. Mark each shadow with the time of the day, as well as how "tall" your shadow is.

MATERIALS

This version of the project uses the same materials. See materials list to the left.

GUIDING QUESTIONS GRADES 3 - 5+

- Why was it important for you to move back to the same spot before measuring your shadow?
- How did your shadow's **placement change** as the day progressed?
- What did you notice about the **length of your shadow** as the day progressed?



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Draw a picture of your shadow silhouette or your sundial data

A large empty rectangular box with a blue border, intended for drawing a shadow silhouette or sundial data.