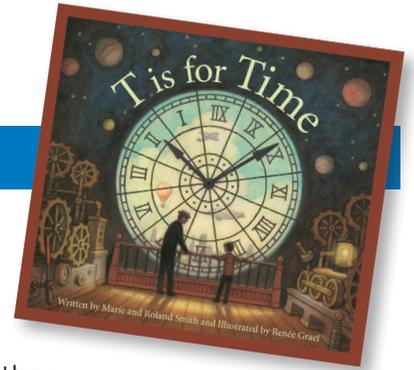


T is for Time

RIF EXTENSION ACTIVITIES FOR EDUCATORS

STEAM-THEMED: SCIENCE, TECHNOLOGY, ENGINEERING, ART, MATH

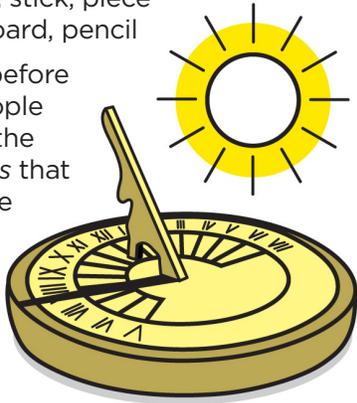


For Younger Students

SCIENCE, TECHNOLOGY, ENGINEERING S IS FOR SUNDIALS AND SHADOWS

Materials: empty can, dirt, stick, piece of cardboard or poster board, pencil

Explain to students that before clocks were invented, people would use the sun to tell the time. People used *sundials* that told the time based on the shadows made by the sun as it changed positions in the sky. To make your own sundial, fill a clean, empty can with dirt, sand, or rocks.



Place a long stick into the dirt in the middle of the can so the stick is standing up. Place the cardboard in a spot outside that will be sunny all day; put the can in the center of the cardboard. Every hour, mark where the shadow of the stick is. Using a clock, write the current time beside the mark. At the end of the day, you'll have a sundial that tells time based on shadows. What do the marks you made look like? Is there a pattern? Test your sundial on a different day. Is it still accurate? Be sure to use the exact same spot outside!

TECHNOLOGY T IS FOR TIMELINE

Using the book and online resources, have students research to create an illustrated timeline of how technology has changed our ability to keep accurate time. Students should use a free online tool like www.readwritethink.org/files/resources/interactives/timeline_2 to make and share their timelines.

ENGINEERING H IS FOR HOURGLASS

Materials: 2 plastic jars, poster board, pencil, scissors, hole punch, duct tape, glue, sand

Trace the mouth of one jar on poster board. Cut out the circle and punch a hole in the middle. Fill one jar with sand. Spread glue around the mouth of the filled jar. Place the poster board circle on top of the jar and

gently press around the edges. Spread glue on the lid of the other jar and place glued side on top of circle. Press gently. Seal both jars together with duct tape. While waiting for glue to dry, predict how long it will take for sand to transfer from one jar to the other. Turn jar over and let sand flow into the empty jar. Record the actual time it takes for the transfer. Run multiple trials to check for accuracy.

ART A IS FOR ALMANAC ART

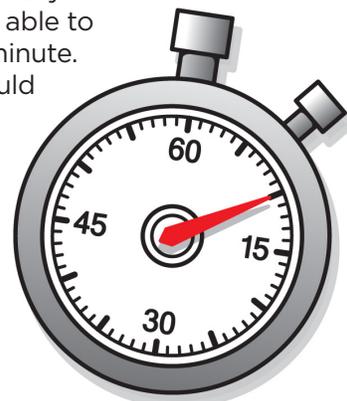
Materials: paper, pencils, markers or crayons

Look up what the weather is supposed to be like for your area for the upcoming season online at www.almanac.com. Will it be a snowy winter? A spring with lots of rain? A super hot summer? Draw a picture of a scene in your school or community that shows the predicted weather.

MATH U IS FOR UNIT OF MEASUREMENT

Materials: stopwatch

What can students do in 10 seconds? In 1 minute? Give small groups a stopwatch and a list of activities (snap fingers, clap hands, hop, etc.). Have students try each action while another times with the stopwatch. They should record how many of each action they can do in 10 seconds. Have them calculate how many they should be able to complete in 1 minute. Then, they should test their calculations.



Reading Is Fundamental