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| A close up of a sign  Description automatically generated | STEM COBB:  Keeping it Cool  3rd Grade STEM Resource from Cobb County Schools  Lesson 6 |
| Thanks for coming back to check out STEMCobb! This week, we will be using everyday materials to design and construct a device/structure that will decrease the warming effects of sunlight on ice cubes (S3P1.c). We will have to tell time to see how well our creations keep things cool (MGSE3.MD.1). Let's get into it! | |
| Materials | |
| plastic tupperware container, small cup, ice, and insulation materials (students pick from items around the house) | |
| Digital Resources | |
| * Introductory Book – **Heat Wave** - https://youtu.be/bkEupyXGopQ * Online Game – **Reasonable Temperature** - <https://www.turtlediary.com/game/estimating-temperature-third-grade.html> * Online Simulation – **Thermometer** - <https://www.mathsisfun.com/measure/thermometer.html> | |
| Instructions | |
| 1. Let's start off with a great book. Check out some things that happen in the midst of a heat wave in the book *Heat Wave* by Eileen Spinelli <https://youtu.be/bkEupyXGopQ> 2. Here are a few online activities that you can try out to be sure that you have a good understanding of temperature!    1. <https://www.turtlediary.com/game/estimating-temperature-third-grade.html>    2. <https://www.mathsisfun.com/measure/thermometer.html> 3. Now it's time to try out a STEM challenge to help us understand more about decreasing the warming effects of the sun! Today, we are going to construct our own coolers!    1. **Ask** yourself the question, what materials could I pack around a cup of ice to decrease the warming effects of the sun and keep the ice from melting?    2. **Brainstorm** some materials that you think would keep the heat away from the ice. Here's a picture of the best way to set up this challenge. You can make adjustments to fit what you have at home! Once you've decided on the best insulation, work to design a whole cooler that keeps ice from melting in the sun! Set up 2 containers to help you see if what you choose to pack around the cup of ice slows down how quickly it melts, or if it melts at the same time as the cup with no insulation.    3. **Create** your cooler and set it outside in the sun. Note the time!    4. Here's how you can **evaluate** the material you chose! Check on the ice in both containers every few minutes and record the time when the ice in both cups melts. Use your awesome math skills to figure out how many minutes it took each cube to melt.    5. Can you **improve** your design so that it takes longer for the ice to melt? Give it a try! | |
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