SCIENCE

INVESTIGATING OUR NATURAL AND ENGINEERED WORLD.

3rd Grade Digital Planning Guide
March 30-April 3rd, 2020

Standards: Heat

S3P1. Obtain, evaluate, and communicate information about the ways heat energy is transferred & measured.

a. Ask questions to identify sources of heat energy (*Clarification statement*: Examples could include sunlight, friction, and burning.)

b. Plan & carry out an investigation to gather data using thermometers to produce tables & charts that illustrate the effect of sunlight on various objects (*Clarification statement:* The use of both Fahrenheit and Celsius temperature scales is expected.)

c. Use tools & every day materials to design & construct a device/structure that will increase/decrease the warming effects of sunlight on various materials.

(Clarification statement: Conduction, convection, and radiation are taught in upper grades).

Digital Learning Resources to support Heat

Highlighted CTLS Teach Lesson: Heat on the Move
In this lesson, students investigate the phenomenon of rubbing their hands together to produce heat. They engage in two explorations using thermometers to measure the heat of sand and various other objects. They finish the lesson with one final investigation about sources of heat.

Mystery Science Lesson: How long did it take to travel across the country before cars and planes?
In this Mystery, students explore how heat is another form of energy that can make things go. In the activity, Heat Spinner, students first make a paper Heat Spinner and observe how air can create movement. Then, students use their Heat Spinners to experiment with a heat source (an incandescent bulb) and discover how heat energy can make the spinner move in different ways. Student Link: https://mysteryscience.com/energy/mystery-7/heat-energy-energy-transfer/268?code=OTUxOTM4&t=student

Legends of Learning Game: Goal Scores, Friction, Peggy's Lab
Engage your students with Legends of Learning science game-based simulations correlated to the Georgia GSE. You can create playlists of games based on science standards and students can work through completing each one. Teachers can use quick play which assigns playlists of the highest-ranking games, or targeted play in which you can choose games that are linked to specific standards you are working on. The best part….teachers can see exactly how students are performing! The Legends website offers training modules on how to manage classes and assign games. To sign up for a Legends of Learning account, you can register here. We have purchased this access for all Cobb Teachers in Math and Science!

Non-Digital Options:

- Cover the outside of a cup of water with a piece of notebook paper and cover the outside of another cup of water with a piece of black construction paper. Measure the water temperature in 20-minute increments for a few hours and create a data table to display the data in Fahrenheit and Celsius. What did you notice?
- Walk around your house and make a list of objects that produce heat. Determine which objects produce heat energy using sunlight, friction, or burning.