POP! TEACHER RESOURCE

From Hot to Cold

Lesson Plan for *Measuring Temperature* Grade 1

Objective

To help students use scales to understand the concept of relative temperature.

Things Needed

- Measuring Temperature book
- Key Temperatures slips (attached)
- Scissors
- Paper clips
- Access to the "Measuring Temperature" web page on the Pop! website: https://popbooksonline.com/lets-measure/measuring-temperature

Before the Activity

Print off four copies of the Key Temperatures slips. Cut the papers so that each item is on a different slip. Clip each set of slips together, so you have four sets. Open the "Measuring Temperature" web page in your internet browser. Pull up the "Explore Links" tab and click on the DK Findout! article, "Temperature." This article can also be found here: https://www.dkfindout.com/us/science/heat/temperature/.

Activity

Read *Measuring Temperature* out loud to students. Page 4 says, "Temperature is a measure of how hot or cold something is." Temperature is measured in units called degrees. People can use tools called thermometers to find the exact temperature of an object or an area. But even without knowing the exact temperature of objects, people can guess which objects would be hotter or colder than others. They can guess the objects' relative temperatures. For example, ask students the following questions:

- Which is hotter: a bowl of soup or an ice cream cone? (Answer: a bowl of soup)
- How do you know? (Possible Answers: I have to blow on the soup to cool it down and keep it from burning my tongue. The ice cream feels cold.)



Explain that we do not need to know the exact temperature of the bowl of soup or the ice cream cone. We can still guess at their relative temperatures. We can guess that the temperature would be greater for a bowl of soup. Next, read the paragraph on the DK Findout! web page, "Temperature." Look at the image on the website. Explain to students that this scale shows the relative temperatures of different objects in the universe. The blue area at the bottom of the image shows very cold objects. As students move up the scale, the objects get hotter. The red area at the top of the image shows very hot objects. Click on each label on the image. Read the captions to learn about different key temperatures and the vast range of temperatures in the universe.

Explain to students that they will create their own scale of relative temperatures, similar to the scale on the website. Divide students into four groups and give each group a set of Key Temperatures slips. Students should use what they learned from the book and the website to organize the slips by relative temperature. The hottest temperature should go at the top. The coldest temperature should go at the bottom. Walk around the room, coaching students as they organize their slips.

Evaluation

Use the following answer key to evaluate groups' scales:

Hottest→ core of the sun hot car brakes water boiling on a stove human body ice Antarctica space Coldest→ absolute zero

Standards

This lesson plan may be used to address the National Science Education Standards' Content Standard B, grades K–4, and the Common Core State Standards' reading standards for informational texts, grade 1 (RI 1.1, 1.3).



Key Temperatures

absolute zero

human body

space

hot car brakes

core of the sun

ice

water boiling on a stove

Antarctica

