



Bridging for Math Strength Resources

[Standards of Learning Curriculum Framework](#)

Standard of Learning (SOL) 3.10 Read temperature to the nearest degree.



Student Strengths	Bridging Concepts	Standard of Learning
Students can count forward by twos, fives, and tens to 120, starting at various multiples of 2, 5, and 10.	Students can determine and utilize skip counting patterns. Students can read temperatures to the nearest ten degrees.	Students can read temperature to the nearest degree on a variety of thermometers.

Understanding the Learning Trajectory

Big Ideas:

- The skills used in reading a number line or a ruler can support the skill of reading a thermometer.
- The relationships between the numbers (and markings) on a thermometer represent the scale and are utilized in determining temperature.
- Temperature can be represented on a thermometer in Celsius and/or Fahrenheit.

Formative Assessment:

- VDOE [Just in Time Mathematics Quick Check 3.10 \(PDF\)](#)
- VDOE [Just in Time Mathematics Quick Check 3.10 \(Desmos\)](#)

Important Assessment Look Fors:

- Student reads the scale of a thermometer and uses the scale to infer the temperature.
- Student distinguishes between Celsius and Fahrenheit on a thermometer.
- Student labels a temperature on a thermometer.
- Student reads a vertical and a circular thermometer.

Purposeful Questions:

- How did you know that the temperature was _____?
- What is this thermometer counting by? How did you determine what each tick mark represents?
- Are the Fahrenheit and Celsius scales the same? How do you know?

Bridging Activity to Support Standard	Instructional Tips
Routine Choral skip counting by 2, 5, or 10 Illustrative Mathematics Daily temperature data collection	Consider having students read the temperature at the beginning of class, especially with different types of thermometers, when possible. The data can be recorded and graphed, as well, to notice patterns.
Rich Tasks Temperature Task Henrico County Public Schools	
Games Temperature Matching Henrico County Public Schools	Use the thermometers and temperatures in the link to create a matching/concentration game students can play in partners.
Other Resources: <ul style="list-style-type: none"> • Show the Temperature (Henrico County Public Schools) • VDOE Mathematics Instructional Plans (MIPS): <ul style="list-style-type: none"> ◦ 3.10 - What's the Temperature Now? (Word) / PDF Version Learning Trajectory Resources: <p>Charles, R. (2005). Big ideas and understandings as the foundation for elementary and middle school mathematics. <i>Journal of Mathematics Education Leadership</i>, 7(3), NCSM.</p> <p>Clements, D. H., & Sarama, J. (2019). Learning and teaching with learning trajectories [LT]2. Marsico Institute, Morgridge College of Education, University of Denver. https://www.learningtrajectories.org/</p> <p>Common Core Standards Writing Team. (2019). Progressions for the Common Core State Standards for Mathematics. Tucson, AZ: Institute for Mathematics and Education, University of Arizona.</p> <p>Richardson, K. (2012). How Children Learn Number Concepts: A Guide to Critical Learning Phases. Bellingham: Math Perspectives Teacher Development Center.</p> <p>Van De Walle, J., Karp, K. S., & Bay-Williams, J. M. (2018). <i>Elementary and Middle School Mathematics: Teaching Developmentally</i>. (10th edition) New York: Pearson (2019:9780134802084)</p> <p>VDOE Curriculum Framework for All Grades - Standard of Learning Curriculum Framework (SOL)</p>	