

Standards for Mathematical Practice

[MP.1.](#) Make sense of problems and persevere in solving them.
[MP.2.](#) Reason abstractly and quantitatively.
[MP.3.](#) Construct viable arguments and critique the reasoning of others.
[MP.4.](#) Model with mathematics.

[MP.5.](#) Use appropriate tools strategically.
[MP.6.](#) Attend to precision.
[MP.7.](#) Look for and make use of structure.
[MP.8.](#) Look for and express regularity in repeated reasoning.

Standard	Clarifications
KY.HS.N.5 Define appropriate units in context for the purpose of descriptive modeling. ★ <i>Alternate Assessment Target: No limitations. All parts of the Kentucky Academic Standard are eligible to be included as a test item.</i>	In real-world situations, answers are usually represented by numbers with units. Units involve measurement, which requires precision and accuracy. For example, students should recognize that units measuring speed would not be appropriate for situations involving volume. Additionally students should understand when one dimensional, two dimensional, or three dimensional units are most applicable. <i>Alternate Assessment Clarification:</i> <i>In real-world situations, answers will determine the miles per hour in a race, the size of a garden and the size of a box that they need to store something in, understanding one -dimensional, two-dimensional and three-dimensional units.</i>
Connections to Math Practices	Coherence/Foundational Understandings
MP.5 Use appropriate tools strategically. (Use tools to make sense of mathematics.*) Students will use appropriate tools to measure in units requested (e.g. measure for a garden using meter sticks, using a stopwatch to measure feet per second) MP.6 Attend to precision. (Communicate precisely.*) Key Vocabulary: one-dimensional, two dimensional, three-dimensional square feet, square inches, milliliters and miles per hour Click here to see more about what teachers and students do to build the math practices: Engaging the Math Practices and Question Stems	Pre-requisite Skills - Students need to identify different units of measurement (e.g., Square feet, miles per hour, milliliter) - Students understand that what is measured determines the unit of measurement Kentucky Academic Standards for Mathematics

*Clarification to the [math practices by Robert Kaplinsky](#).

Instructional Considerations

Possible Areas of Difficulties/Misconceptions

- Using the incorrect unit of measurement
- Being able to identify one-dimensional, two-dimensional and three-dimensional units of measurement

Suggested Tools/Visual Aids -

- [KY Alternate Assessment Resource Guide](#) (General terms pps 6-11 ; Math terms pps 22-26)
- Anchor charts
- Illustration of a line
- Illustration of length
- Illustration of one-dimensional
- Illustration of two-dimensional
- Illustration of three-dimensional
- color tiles base-ten blocks
- Cubes
- pattern blocks
- capacity containers

Students should have concrete experiences that build on the conceptual understanding of one-dimensional, two-dimensional and three-dimensional units of measure