CoreStand™
teachers, not textbooks

Overview of the Mathematics Standards: 7 Highlights

Structured on principles of **process/procedure** as well as **proficiency/understanding**, the Standards in mathematics outline the following skills that students should work to master at all levels:

1

Make sense of problems and persevere in solving them.
This skill band addresses student proficiency in understanding the nature of a problem, its shared properties with similar problems, its unique characteristics, and possible in-roads to solving it. Students employ the skills of observation, analysis, and thoughtful reflection when formulating solutions and evaluating the results.

2

Reason abstractly and quantitatively.
This skill band addresses student proficiency in transitioning between abstract and context-specific scenarios. Thus, students employ reasoning skills in an abstract environment where mathematical symbols and their functions are devoid of their referents as well as environments where these symbols have clear referents, and can transition between environments if necessary.

3

Construct viable arguments and critique the reasoning of others.
This skill band addresses student proficiency in recognizing, understanding, and using logic in arguments. Students read and interpret data, make and evaluate conjectures, and compare the effectiveness of two different arguments.

4

Model with mathematics.
This skill band addresses student proficiency in solving real-world mathematics problems. In doing so, students utilize tools such as diagrams, flow charts, and formulas to analyze data and draw accurate conclusions.

5

Use appropriate tools strategically and attend to precision.
These skill bands address student proficiency in utilizing proper tools to assist in solving problems. From a pencil and paper to sophisticated computer software, students employ grade-appropriate tools to explore and deepen their understanding of mathematical content. In addition, students should demonstrate proficiency in communicating mathematical concepts and expressions precisely. Whether discussing definitions, employing symbols in equations, graphing data, specifying units of measure, or calculating solutions, students are careful and accurate in their approach.

6

Look for and make use of structure.
This skill band addresses student proficiency in recognizing and understanding patterns within mathematical scenarios and expressions. Students recognize smaller

structures within larger expressions, and, if needed, can step back and assess an expression as a whole for perspective and clarity.

Look for and express regularity in repeated reasoning.

7

This skill band addresses student proficiency in recognizing and understanding repetition within calculations and expressions in order to be more efficient formulating solutions. Whether discovering patterns when plotting the slope of a line or noticing regularity in how terms cancel out when expanding an equation, students understand how repetition within calculations and expressions affects the overall outcome.