ISTEP+: Grade 7 Mathematics
2015-16 Blueprint

The grade 7 mathematics assessment is divided into five categories for reporting student achievement. Age-appropriate concepts are assessed within each category.

Reporting Category	Description	Percent Range*
Number Sense and Computation	Questions may include comparing rational and common irrational numbers, solving problems involving square roots, computing with rational numbers fluently; solving real-world problems involving rational numbers, and solving problems involving ratios and percents.	24-34%
Algebra & Functions	Questions may include applying the properties of operations to create equivalent linear expressions; solving problems involving slope, solving 2-step linear equations fluently, and representing real-world problems using linear equations and solving such problems.	22-32%
Geometry & Measurement	Questions may include solving problems involving similarity; solving problems involving vertical, adjacent, complementary, and supplementary angles, solving problems involving area and circumference of circles, solving problems involving volume of cylinders and three-dimensional objects composed of right rectangular prisms, and solving problems involving surface area of right rectangular prisms and cylinders.	13-23%
Data Analysis, Statistics, & Probability	Questions may include making inferences about data from random samples, summarizing and interpreting data sets using measures of center and spread, and solving problems involving probability.	7-17%
Mathematical Process	Questions may include making sense of problems and persevering in solving them, reasoning abstractly and quantitatively, constructing viable arguments and critiquing the reasoning of others, modeling, using appropriate tools strategically, attending to precision, and making use of structure.	9-19%

* This range represents the approximate emphasis for each reporting category on the assessment.