

Grade 5 Teacher Resource Document

5th Grade PA Core Mathematics Standards Checklist

M05.A-T Numbers and Operations in Base Ten Reporting Category

ASSESSMENT ANCHOR

M05.A-T.1 Understand the place-value system.

DESCRIPTOR

M05.A-T.1.1 Demonstrate understanding of place-value of whole numbers and decimals, and compare quantities or magnitudes of numbers.

ELIGIBLE CONTENT	Textbook Resources	Online Resources	Additional Resources	Assessment
M05.A-T.1.1.1 Demonstrate an understanding that in a multi-digit number, a digit in one place represents $\frac{1}{10}$ of what it represents in the place to its left. Example: Recognize that in the number 770, the 7 in the tens place is $\frac{1}{10}$ the 7 in the hundreds place.	Chapter 1 Lessons 1, 2, 5, 6, 7, 8	i-Ready 171		
M05.A-T.1.1.2 Explain patterns in the number of zeros of the product when multiplying a number by powers of 10 and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10. Example 1: $4 \times 102 = 400$ Example 2: $0.05 \div 103 = 0.00005$	Chapter 1 Lessons 1, 2, 5, 6, 7, 8	i-Ready 172 (Decimals)		
M05.A-T.1.1.3 Read and write decimals to thousandths using base-ten numerals, word form, and expanded form. Example: $347.392 = 300 + 40 + 7 + 0.3 + 0.09 + 0.002 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (0.1) + 9 \times (0.01) + 2 \times (0.001)$	Chapter 1 Lesson 6	i-Ready 173, 189		
M05.A-T.1.1.4 Compare two decimals to thousandths based on meanings of the digits in each place using $>$, $=$, and $<$ symbols.	Chapter 1 Lessons 2, 7	i-Ready 195		

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ELIGIBLE CONTENT	Textbook Resources	Online Resources	Additional Resources	Assessment
M05.A-T.1.1.5 Round decimals to any place (limit rounding to ones, tenths, hundredths, or thousandths place).	Chapter 5 Lesson 1	i-Ready 174, 190		
ASSESSMENT ANCHOR				
M05.A-T.2 Perform operations with multi-digit whole numbers and with decimals to hundredths.				
DESCRIPTOR				
M05.A-T.2.1 Use whole numbers and decimals to compute accurately (straight computation or word problems).				
ELIGIBLE CONTENT	Textbook Resources	Online Resources	Additional Resources	Assessment
M05.A-T.2.1.1 Multiply multi-digit whole numbers (not to exceed three-digit by three-digit).	Chapter 5 Lessons 3, 4, 9, 10	i-Ready 196		
M05.A-T.2.1.2 Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors.	Chapter 3 Lessons 1, 3, 4, 5, 7, 8, 9, 10, 11, 12 Chapter 4 Lessons 1, 3, 4, 5	i-Ready 175		
M05.A-T.2.1.3 Add, subtract, multiply, and divide decimals to hundredths (no divisors with decimals)	Chapter 5 Lessons 2, 5, 6, 7, 9, 10 Chapter 6 Lesson 1, 2, 3, 4, 5, 6, 8, 9, 10, 11	i-Ready 176, 177, 178		

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M05.A-F Numbers and Operations—Fractions Reporting Category

ASSESSMENT ANCHOR

M05.A-F.1 Use equivalent fractions as a strategy to add and subtract fractions.

DESCRIPTOR

M05.A-F.1.1 Solve addition and subtraction problems involving fractions (straight computation or word problems).

ELIGIBLE CONTENT

M05.A-F.1.1.1 Add and subtract fractions (including mixed numbers) with unlike denominators. (May include multiple methods and representations.)
Example: $\frac{2}{3} + \frac{5}{4} = \frac{8}{12} + \frac{15}{12} = \frac{23}{12}$

Textbook Resources

Chapter 9
Lessons 2, 3, 4, 5, 6, 7,
9, 10, 11, 12, 13

Online Resources

i-Ready
179

Additional Resources

Assessment

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ASSESSMENT ANCHOR				
M05.A-F.2 Apply and extend previous understandings of multiplication and division to multiply and divide fractions.				
DESCRIPTOR				
M05.A-F.2.1 Solve multiplication and division problems involving fractions and whole numbers (straight computation or word problems).				
ELIGIBLE CONTENT	Textbook Resources	Online Resources	Additional Resources	Assessment
M05.A-F.2.1.1 Solve word problems involving division of whole numbers leading to answers in the form of fractions (including	Chapter 3 Lesson 12	i-Ready 169, 170		
M05.A-F.2.1.2 Multiply a fraction (including mixed numbers) by a fraction.	Chapter 10 Lesson 1-7	i-Ready 201, 202		
<p>M05.A-F.2.1.3 Demonstrate an understanding of multiplication as scaling (resizing).</p> <p>Example 1: Comparing the size of a product to the size of one factor on the basis of the size of the other factor without performing the indicated multiplication.</p> <p>Example 2: Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number.</p>	Chapter 10 Lesson 8	i-Ready 168		
M05.A-F.2.1.4 Divide unit fractions by whole numbers and whole numbers by unit fractions.	Chapter 10 Lesson 9, 10, 11	i-Ready 169, 170, 185, 186		

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M05.B-O Operations and Algebraic Thinking Reporting Category				
ASSESSMENT ANCHOR				
M05.B-O.1 Write and interpret numerical expressions.				
DESCRIPTOR				
M05.B-O.1.1 Analyze and complete calculations by applying the order of operations				
ELIGIBLE CONTENT	Textbook Resources	Online Resources	Additional Resources	Assessment
M05.B-O.1.1.1 Use multiple grouping symbols (parentheses, brackets, or braces) in numerical expressions and evaluate expressions containing these symbols	Chapter 7 Lesson 2	i-Ready 130, 131		
M05.B-O.1.1.2 Write simple expressions that model calculations with numbers and interpret numerical expressions without evaluating them. Example 1: Express the calculation “add 8 and 7, then multiply by 2” as $2 \times (8 + 7)$. Example 2: Recognize that $3 \times (18,932 + 921)$ is three times as large as $18,932 + 921$ without having to calculate the indicated sum or product.	Chapter 7 Lessons 1, 3			

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ASSESSMENT ANCHOR				
M05.B-O.2 Analyze patterns and relationships.				
DESCRIPTOR				
M05.B-O.2.1 Create, extend, and analyze patterns.				
ELIGIBLE CONTENT	Textbook Resources	Online Resources	Additional Resources	Assessment
<p>M05.B-O.2.1.1 Generate two numerical patterns using two given rules.</p> <p>Example: Given the rule “add 3” and the starting number 0 and given the rule “add 6” and the starting number 0, generate terms in the resulting sequences.</p>	Chapter 7 Lesson 5	i-Ready 132, 133		
<p>M05.B-O.2.1.2 Identify apparent relationships between corresponding terms of two patterns with the same starting numbers that follow different rules.</p> <p>Example: Given two patterns in which the first pattern follows the rule “add 8” and the second pattern follows the rule “add 2,” observe that the terms in the first pattern are 4 times the size of the terms in the second pattern.</p>	Chapter 7 Lesson 6	i-Ready 133		

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M05.C-G Geometry Reporting Category

ASSESSMENT ANCHOR

M05.C-G.1 Graph points on the coordinate plane to solve real-world and mathematical problems.

DESCRIPTOR

M05.C-G.1.1 Identify parts of a coordinate grid and describe or interpret points given an ordered pair.

ELIGIBLE CONTENT	Textbook Resources	Online Resources	Additional Resources	Assessment
M05.C-G.1.1.1 Identify parts of the coordinate plane (x-axis, y-axis, and the origin) and the ordered pair (x-coordinate and y-coordinate). Limit the coordinate plane to quadrant I.	Chapter 7 Lessons 5, 6, 7, 8	i-Ready 37		
M05.C-G.1.1.2 Represent real-world and mathematical problems by plotting points in quadrant I of the coordinate plane and interpret coordinate values of points in the context of the situation.	Chapter 7 Lesson 9			

ASSESSMENT ANCHOR

M05.C-G.2 Classify two-dimensional figures into categories based on their properties.

DESCRIPTOR

M05.C-G.2.1 Use basic properties to classify two-dimensional figures.

ELIGIBLE CONTENT	Textbook Resources	Online Resources	Additional Resources	Assessment
M05.C-G.2.1.1 Classify two-dimensional figures in a hierarchy based on properties. Example 1: All polygons have at least three sides, and pentagons are polygons, so all pentagons have at least three sides. Example 2: A rectangle is a parallelogram, which is a quadrilateral, which is a polygon; so, a rectangle can be classified as a parallelogram, as a quadrilateral, and as a polygon.	Chapter 12 Lessons 1, 3, 4, 5,	i-Ready 42		

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M05.D-M Measurement and Data Reporting Category				
ASSESSMENT ANCHOR				
M05.D-M.1 Convert like measurement units within a given measurement system.				
DESCRIPTOR				
M05.D-M.1.1 Solve problems using simple conversions (may include multistep, real-world problems).				
ELIGIBLE CONTENT	Textbook Resources	Online Resources	Additional Resources	Assessment
M05.D-M.1.1.1 Convert between different-sized measurement units within a given measurement system. A table of equivalencies will be provided. Example: Convert 5 cm to meters.	Chapter 11 Lessons 2, 4, 5, 6, 7, 10, 11, 12 13	i-Ready 97, 101		
ASSESSMENT ANCHOR				
M05.D-M.2 Represent and interpret data.				
DESCRIPTOR				
M05.D-M.2.1 Organize, display, and answer questions based on data.				
ELIGIBLE CONTENT	Textbook Resources	Online Resources	Additional Resources	Assessment
M05.D-M.2.1.1 Solve problems involving computation of fractions by using information presented in line plots.	Chapter 11 Lesson 8	i-Ready 102		
M05.D-M.2.1.2 Display and interpret data shown in tallies, tables, charts, pictographs, bar graphs, and line graphs, and use a title, appropriate scale, and labels. A grid will be provided to display data on bar graphs or line graphs.	Chapter 7 Lesson 9	i-Ready 107		

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ASSESSMENT ANCHOR				
M05.D-M.3 Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.				
DESCRIPTOR				
M05.D-M.3.1 Use, describe, and develop procedures to solve problems involving volume.				
ELIGIBLE CONTENT	Textbook Resources	Online Resources	Additional Resources	Assessment
M05.D-M.3.1.1 Apply the formulas $v = l \times w \times h$ and $v = b \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real-world and mathematical problems. Formulas will be provided.	Chapter 12 Lessons 8, 9	i-Ready 100		
M05.D-M.3.1.2 Find volumes of solid figures composed of two non-overlapping right rectangular prisms.	Chapter 12 Lessons 10, 11, 12	i-Ready 99		