


# Achievement Level Descriptors

# Grade 3 Mathematics

Georgia Department of Education
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**Achievement Levels and Achievement Level Descriptors**

With the implementation of the Georgia Milestones Assessment System, Georgia educators have developed four achievement levels to describe student mastery and command of the knowledge and skills outlined in Georgia's content standards. Most students have at least some knowledge of the content described in the content standards; however, achievement levels succinctly describe how much mastery a student has. Achievement levels give meaning and context to scale scores by describing the knowledge and skills students must demonstrate to achieve each level.

The four achievement levels on Georgia Milestones are *Beginning Learner*, *Developing Learner*, *Proficient Learner*, and *Distinguished Learner*. The general meaning of each of the four levels is provided below:

**Beginning Learners do not yet demonstrate proficiency** in the knowledge and skills necessary at this grade level/course of learning, as specified in Georgia's content standards. The students ***need substantial academic support*** to be prepared for the next grade level or course and to be on track for post-secondary readiness.

**Developing Learners demonstrate partial proficiency** in the knowledge and skills necessary at this grade level/course of learning, as specified in Georgia's content standards. The students ***need additional academic support*** to ensure success in the next grade level or course and to be on track for post-secondary readiness.

**Proficient Learners demonstrate proficiency** in the knowledge and skills necessary at this grade level/course of learning, as specified in Georgia's content standards. The students ***are prepared*** for the next grade level or course and are on track for post-secondary readiness.

**Distinguished Learners demonstrate advanced proficiency** in the knowledge and skills necessary at this grade level/course of learning, as specified in Georgia's content standards. The students ***are well prepared*** for the next grade level or course and are well prepared for post-secondary readiness.

More detailed and content-specific concepts and skills are provided for each grade, content area, and course in the **Achievement Level Descriptors** (ALDs). ALDs are narrative descriptions of the knowledge and skills expected at each of the four achievement levels and were developed for each grade level, content area, and course by committees of Georgia educators.

***ALDs show a progression of knowledge and skills*** for which students must demonstrate competency across the achievement levels. It is important to understand that a student should demonstrate mastery of the knowledge and skills within the student's achievement level as well as all content and skills in any achievement levels that precede the student's own, if any. For example, a Proficient Learner should also possess the knowledge and skills of a Developing Learner and a Beginning Learner.

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| POLICY DESCRIPTORS | | | |
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| **Beginning Learner** | **Developing Learner** | **Proficient Learner** | **Distinguished Learner** |
| **Beginning Learners do not yet demonstrate proficiency in the knowledge and skills** necessary at this grade level/course of learning, as specified in Georgia's content standards. The students *need substantial academic support* to be prepared for the next grade level or course and to be on track for *post-secondary readiness.* | **Developing Learners demonstrate partial proficiency in the knowledge and skills** necessary at this grade level/course of learning, as specified in Georgia's content standards. The students *need additional academic support* to ensure success in the next grade level or course and to be on track for *post-secondary readiness.* | **Proficient Learners demonstrate proficiency in the knowledge and skills** necessary at this grade level/course of learning, as specified in Georgia's content standards. The students *are prepared* for the next grade level or course and are on track for *post-secondary readiness.* | **Distinguished Learners demonstrate advanced proficiency in the knowledge and skills** necessary at this grade level/course of learning, as specified in Georgia's content standards. The students *are well prepared* for the next grade level or course and are well prepared for *post-secondary readiness.* |
| **RANGE DESCRIPTORS** | | | |
| A student who achieves at the Beginning Learner level demonstrates minimal command of the grade-level standards. | A student who achieves at the Developing Learner level demonstrates partial command of the grade-level standards. | A student who achieves at the Proficient Learner level demonstrates proficiency of the grade-level standards. | A student who achieves at the Distinguished Learner level demonstrates advanced proficiency of the grade-level standards. |
| *3.NR.1: Use place value reasoning to represent, read, write, and compare numerical values up to 10,000 and round whole numbers up to 1,000.* | | | |
| • Given a whole number up to 10,000 in base-ten numerals or expanded form, identify the other form of that number.<br>• Given a visual representation, compare two multi-digit whole numbers up to 10,000 using >, =, and < symbols.<br>• Given a visual aid, such as a number line, round whole numbers within 100 to the nearest 10. | • Given a number up to 10,000 in base-ten numerals or expanded form, compose and decompose numbers in different ways.<br>• Compare two multi-digit whole numbers up to 10,000 using >, =, and < symbols.<br>• Given a visual aid, such as a number line, round whole numbers within 1,000 to the nearest 10 or 100. | • Compare two multi-digit whole numbers up to 10,000 to solve real-life mathematical problems.<br>• Round whole numbers within 1,000 to the nearest 10 and the nearest 100. | • Read, write, and compare multi-digit numbers up to 10,000, and round multi-digit numbers up to 1,000 to solve complex real-life mathematical problems, including problems with data presented in bar graphs and dot plots. |
| • *3.PAR.2: Use part-whole strategies to represent and solve real-life problems involving addition and subtraction with whole numbers within 10,000.* | | | |
| • Given a visual representation, add and subtract whole numbers within 1,000.<br>• Add and subtract whole numbers within 10,000. | • Fluently add and subtract whole numbers within 1,000.<br>• Represent real-life problems involving addition and subtraction of whole numbers within 10,000 using equations with a letter standing for the unknown quantity. | • Solve real-life problems involving addition and subtraction of whole numbers within 10,000 using equations with a letter standing for the unknown quantity. | • Solve complex or multi-step real-life mathematical problems involving addition and subtraction of whole numbers within 10,000. Justify solutions within the context of real-life problems. |

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| *3.PAR.3: Use part-whole strategies to solve real-life, mathematical problems involving multiplication and division with whole numbers within 100.* | | | |
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| • Recognize and extend numeric patterns related to multiplication within 100.<br>• Recognize equivalent multiplication expressions with products within 100 by applying the commutative property.<br>• Solve multiplication and division problems within 100 using visual representations.<br>• Represent real-life problems involving multiplication and division of whole numbers within 100. | • Describe a rule for numeric patterns related to multiplication within 100.<br>• Recognize equivalent multiplication expressions with products within 100 by applying the distributive or associative property.<br>• Solve multiplication and division problems within 100 in a variety of ways.<br>• Represent real-life problems involving multiplication and division of whole numbers within 100 using equations with a letter standing for the unknown quantity. | • Create a numeric pattern related to multiplication that matches a given rule, and make predictions related to the pattern.<br>• Solve real-life problems by explaining the relationship between multiplication and division.<br>• Use place value reasoning to multiply a one-digit number by a multiple of 10 in the range of 10–90.<br>• Solve practical, relevant problems involving multiplication and division within 100, including using equations with a letter standing for the unknown quantity. | • Solve complex or multi-step real-life problems involving the four operations within 100 using properties of operations and letters standing for the unknown quantities. Justify solutions within the context of real-life problems. |
| *3.NR.4: Represent fractions with denominators of 2, 3, 4, 6 and 8 in multiple ways within a framework using visual models.* | | | |
| • Given a visual representation, identify a unit fraction and an equivalent fraction.<br>• Given a visual representation, compare two unit fractions within a contextual situation. | • Given a visual representation, identify and describe a non-unit fraction as multiple copies of a unit fraction.<br>• Given a visual representation, compare two unit fractions and record the comparison using <, >, or =.<br>• Given a fraction, including fractions greater than one, represent the fraction with a visual representation.<br>• Given a visual representation, generate an equivalent fraction. | • Use multiple representations to identify and describe a non-unit fraction as multiple copies of a unit fraction.<br>• Compare two unit fractions and record the comparison using <, >, or =.<br>• Given a fraction, including fractions greater than one, represent the fraction in multiple ways.<br>• Generate equivalent fractions. | • Solve complex or multi-step real-life problems by representing and comparing fractions and making connections between different representations. |

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| *3.MDR.5: Solve real-life, mathematical problems involving length, liquid volume, mass, and time.* | | | |
| • Identify information from a pictograph, bar graph, or dot plot.<br>• Estimate liquid volumes, lengths, and masses of objects using customary units. | • Create a pictograph, bar graph, or dot plot that matches a data set.<br>• Tell and write time to the nearest minute.<br>• Use a ruler to measure length to the nearest inch.<br>• Measure liquid volumes, lengths, and masses of objects using customary units. | • Solve real-life problems involving data from categorical or numerical data sets and data displays.<br>• Solve meaningful problems involving elapsed time to the quarter hour.<br>• Use a ruler to measure length to the ¼ inch or ½ inch.<br>• Solve problems involving mass, length, and volume, and reason about the relative sizes of customary units. | • Solve meaningful, complex problems involving customary measurement units or involving reasoning related to the relative sizes of measurement units.<br>• Solve relevant problems involving elapsed time to the nearest fifteen minutes from any given time. |
| *3.GSR.6: Identify the attributes of polygons, including parallel segments, perpendicular segments, right angles, and symmetry.* | | | |
| • Given two line segments, determine whether the line segments are parallel or perpendicular.<br>• Identify quadrilaterals as faces of 3-dimensional figures. | • Identify parallel and perpendicular line segments or right angles in polygons.<br>• Classify a given set of shapes as quadrilaterals based on their properties. | • Solve relevant problems involving polygons and 3-dimensional figures that have quadrilaterals as faces.<br>• Analyze specific 3-dimensional figures to identify and describe quadrilaterals as faces of these figures.<br>• Compare and contrast two quadrilaterals based on their properties, including parallel and perpendicular line segments, lines of symmetry, and right angles.<br>• Identify lines of symmetry in regular polygons. | • Analyze 3-dimensional figures, and describe quadrilaterals as faces of these figures.<br>• Compare and contrast multiple quadrilaterals based on their properties, including parallel and perpendicular line segments, lines of symmetry, and right angles. |

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| *3.GSR.7: Identify area as a measurable attribute of rectangles and determine the area of a rectangle presented in real-life, mathematical problems.* | | | |
| • Determine the area of a rectangle by tiling and counting. | • Determine the area of a rectangle by tiling and counting to solve relevant problems.<br>• Given a visual model, determine the area of a rectangle by using multiplication. | • Determine the area of a rectangle by using multiplication to solve real-life problems.<br>• Create a visual model for the area of a rectangle from a verbal description, and explain that multiplication can be used to find the area of a rectangle because of the connection with repeated addition and counting tiles. | • Solve relevant multi-step real-life problems involving the areas of rectangles. |
| *3.GSR.8: Determine the perimeter of a polygon presented in real-life, mathematical problems.* | | | |
| • Know that perimeter is a measure of distance around a polygon. | • Determine the perimeters of polygons with given side lengths. | • Solve real-life problems involving perimeters of polygons, including finding missing side lengths.<br>• Identify rectangles that have the same perimeter but different areas or the same area but different perimeters. | • Solve complex multi-step problems involving the perimeters of polygons, and explain how rectangles can have the same perimeter but different areas or the same area but different perimeters. |

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