Grade 1 Mathematics Performance Level Descriptors

Limited

A student performing at the **Limited Level** demonstrates a minimal command of Ohio's Learning Standards for Grade 1 Mathematics. The student shows an **emerging ability** to solve problems involving addition and subtraction within 20, understand place value, measure lengths, and reason with shapes. The student may rely heavily on concrete objects or pictorial representations and needs support to complete tasks.

A student whose performance lies within the **Limited Level** typically can:

- Carry out some routine procedures to solve straightforward one-step problems.
- Recognize solutions to some simple computations, straightforward problems.
- Compute a few grade-level numbers and operations accurately.
- Recognize a few grade-level mathematical concepts, terms, and properties, and use previous grade-level mathematical concepts, terms, and properties.

A student at the **Limited Level** can:

- Solve simple addition or subtraction problems within 10 using objects or fingers. (1.OA.1)
- Solve simple addition problems with sums ≤ 10 using drawings. (1.OA.1)
- Identify addition and subtraction symbols inconsistently. (1.OA.7)
- Count orally to 50 by ones but may skip numbers or reverse some digits. (1.NBT.1)
- Identify some two-digit numbers. (1.NBT.2)
- Identify tens and ones in two-digit numbers with inconsistency. (1.NBT.2)
- Compare numbers using informal language (e.g., "bigger" or "smaller"). (1.NBT.3)
- Compare two objects using informal language (e.g., "this is taller"). (1.MD.1–2)
- Compare two physical or pictorial objects. (1.MD.1)
- Measure using non-standard units, but may leave gaps or overlaps. (1.MD.2)
- Identify basic measurement tools (e.g., ruler, clock). (1.MD.3)
- Identify the meaning of the different hands on an analog clock. (1.MD.3a)
- Identify pennies. (1.MD.3b)
- Identify basic shapes (e.g., triangle, circle, square). (1.G.1)

Basic

A student performing at the **Basic Level** demonstrates an appropriate command of Ohio's Learning Standards for Grade 1 Mathematics. A student at this level has a **general ability** to solve simple problems using concrete objects or visual models, count and compare numbers, and identify basic shapes and measurements with some accuracy.

A student whose performance falls within the **Basic Level** typically can**:**

- Carry out routine procedures.
- Solve simple problems using visual representations.
- Compute some grade-level numbers and operations.
- Recall and recognize some grade-level mathematical concepts, terms, and properties, and use more previous grade-level mathematical concepts, terms, and properties.

A student at the **Basic Level** can:

- Solve one-step addition and subtraction problems within 20 using manipulatives or drawings (see Table 1 of the Ohio Learning Standards). (1.OA.1-2)
- Understand the relationship between addition and subtraction (see Table 1 of the Ohio Learning Standards). (1.OA.1–4).
- Recognize the patterns in properties of addition. (1.OA.3)
- Recognize that, unlike addition, subtraction is neither commutative nor associative. (1.OA.3)
- Recognize subtraction as an unknown-addend problem. (1.OA.4)
- Relate counting to addition (i.e., counting on to add 2). (1.OA.5)
- Add and subtract within 20 using concrete or pictorial models. (1.OA.6)
- Understand and apply properties of operations. (1.OA.1-8)
- Understand the meaning of the equal sign as "same as". (1.OA.7)
- Represent an equation with an equal sign using objects or pictures; (1.OA.7)
- Count to 100 by ones and tens. (1.NBT.1)
- Read and write numbers to 50. (1.NBT.1)
- Use models to demonstrate two-digit numbers as representing groups of tens and ones. (1.NBT.2)
- Understand that two-digit numbers represent tens and ones. (1.NBT.2)
- Compare two-digit numbers using objects or pictures and words. (1.NBT.3)
- Add a two-digit number and a one-digit number with no regrouping using models. (1.NBT.4)
- Find 10 more or 10 less than a number with support. (1.NBT.5)
- Subtract multiples of 10 using models or pictures. (1.NBT.6)
- Order three objects by length. (1.MD.1)
- Measure using non-standard units with some accuracy. (1.MD.2)
- Tell time to the hour using a model. (1.MD.3a)
- Identify pennies and dimes. (1.MD.3b)
- Organize and represent data into a given chart with support. (1.MD.4)
- Interpret given data. (1.MD.4)
- Name and describe two-dimensional shapes and three-dimensional figures using informal language. (1.G.1-2)

- Compose shapes using models or drawings. (1.G.2)
- Partition shapes into halves and fourths. (1.G.3)

PROFICIENT

A student performing at the **Proficient Level** demonstrates an appropriate command of Ohio's Learning Standards for Grade 1 Mathematics. A student at this level has a **consistent ability** to solve problems involving addition and subtraction within 20, understands place value meanings for numbers to 100, measures and compares lengths, and reasons about shapes and their attributes.

A student whose performance falls within the **Proficient Level** typically can:

- Solve most routine and straightforward problems accurately.
- Compute accurately with most grade-level numbers and operations.
- Apply most grade-level mathematical concepts, terms, and properties.
- Use informal (visual representation and language) and some formal reasoning.

A student at the **Proficient Level** can:

- Understands and applies properties of operations using models, pictures, words, and numbers. (1.OA.1–8)
- Solve word problems involving up to three addends with sums ≤ 20 (see Table 1 of the Ohio Learning Standards). (1.OA.2)
- Understand subtraction as an unknown-addend problem. (1.OA.4)
- Relate counting to addition (e.g., counting on to add and counting back to subtract). (1.OA.5)
- Add and subtract within 20 using models or pictures and various problem-solving strategies. (1.OA.6)
- Solve routine word problems within 20 using strategies or manipulatives (see Table 1 of the Ohio Learning Standards). (1.OA.6)
- Apply the meaning of the equal sign as "same as" using objects, pictures, words, and numbers. (1.OA.7)
- Determine if equations are true or false. (1.OA.7)
- Determine the unknown number in an equation (e.g., 11 = 8 + __; 8 + __ = 11). (1.OA.8)
- Read and write numbers to 120. (1.NBT.1)
- Count to 120 starting at any number less than 120. (1.NBT.1)
- Understand that two-digit numbers represent groups of tens and ones. (1.NBT.2)
- Compare two-digit numbers using symbols. (1.NBT.3)
- Add and subtract within 100, including regrouping, using place value strategies and models. (1.NBT.4)
- Use place value understanding to add and subtract multiples of 10. (1.NBT.5–6)
- Order three objects by length and compare the lengths of two objects using the third object. (1.MD.1)
- Measure length using whole number units with no gaps or overlaps. (1.MD.2)
- Tell and write the time to the hour using a model. (1.MD.3a)
- Identify pennies and dimes by name and value. (1.MD.3b)
- Count small collections of coins. (1.MD.3b)
- Organize data in up to three categories with models, drawings, or graphic organizers. (1.MD.4)

- Interpret data in up to three categories to answer “how many more” and “how many fewer” questions. (1.MD.4)
- Distinguish between defining and non-defining attributes. (1.G.1)
- Compose and decompose shapes to form new shapes. (1.G.2)
- Partition circles and rectangles into two or four equal shares. (1.G.3)
- Describe circles and rectangles partitioned into two or four parts as having halves, quarters, or fourths. (1.G.3)

ACCOMPLISHED

A student performing at the **Accomplished Level** demonstrates a strong command of Ohio's Learning Standards for Grade 1 Mathematics. A student at this level has a **superior ability** to consistently solve problems, explain reasoning using mathematical language, and apply concepts to real-world contexts with accuracy and efficiency.

Students whose performance falls within the **Accomplished Level** typically can:

- Accurately solve routine and straightforward problems.
- Solve a variety of routine problems.
- Compute accurately and efficiently with familiar numbers.
- Recognize connections between mathematical concepts, terms, and properties.
- Use informal and some formal reasoning with symbolic representation.
- Uses precise vocabulary.
- Explains computational strategies.

A student at the **Accomplished Level** can:

- Explain strategies using equations and models. (1.OA.1-8)
- Write equations with unknowns (e.g., 7 + __ = 10). (1.OA.1–4)
- Solve word problems using addition and subtraction (see Table 1 of the Ohio Learning Standards). (1.OA.1-2)
- Apply properties of operations to solve addition and subtraction problems. (1.OA.3)
- Fluently solves addition and subtraction problems within 20 using properties and strategies. (1.OA.6)
- Justify equations using properties of operations. (1.OA.7)
- Creates story problems to match given equations (see Table 1 of the Ohio Learning Standards). (1.OA.8)
- Count to 120, starting at any number less than 120. (1.NBT.1)
- Read and write numbers to 120. (1.NBT.1)
- Explain comparisons of two 2-digit numbers. (1.NBT.3)
- Explain place value meaning using objects, pictures, or equations. (1.NBT.2-3)
- Add and subtract within 100 using place value and explain reasoning. (1.NBT.4)
- Use multiple representations to solve problems. (1.NBT.4)
- Mentally add or subtract 10 and explain the effect on place value. (1.NBT.5-6)
- Subtract multiples of 10 and relate to addition and subtraction strategies. (1.NBT.6)
- Solve problems involving addition and subtraction of lengths. (1.MD.1–4)
- Measure and compare lengths using standard units. (1.MD.1–2)
- Tell and write the time to the hour and half-hour using a model. (1.MD.3a)
- Identify the total value of a given number of pennies or dimes. (1.MD.3b)
- Organize and analyze data in up to three categories to answer "how many more" and "how many fewer" questions. (1.MD.4)
- Compare shapes based on an attribute. (1.G.1-3)
- Explain how shapes can be combined or divided using precise language. (1.G.2)
- Apply understanding of shape composition to solve real-world problems. (1.G.2)
- Partition shapes into equal shares and use correct vocabulary. (1.G.3)

ADVANCED

A student performing at the **Advanced Level** demonstrates a distinguished command of Ohio's Learning Standards for Grade 1 Mathematics. A student at this level has a **sophisticated ability** to solve non-routine problems, justifies reasoning with precision, and uses multiple strategies and representations to model and solve mathematical situations.

A student whose performance falls within the **Advanced Level** typically can:

- Solve routine and straightforward problems accurately and efficiently.
- Solve a variety of non-routine problems.
- Compute accurately and efficiently.
- Recognize, apply, and justify mathematical concepts, terms, and properties and their connections, and use more formal reasoning and symbolic representation (precise mathematical language).
- Uses mathematical language and representations to explain thinking clearly.
- Justifies reasoning using multiple strategies.

A student at the **Advanced Level** can:

- Solve and explain reasoning on non-routine problems involving unknowns in all positions (See Table 1 of the Ohio Learning Standards). (1.OA.1–2)
- Apply and explain properties and operations as strategies to add and subtract. (1.OA.3)
- Fluently add and subtract within 20 using and explaining properties strategies. (1.OA.6)
- Evaluate and explain the truth of equations using properties. (1.OA.7)
- Create an original story problem to match a given equation (see Table 1 of the Ohio Learning Standards). (1.OA.8)
- Apply place value understanding to solve multi-step problems. (1.NBT.2–6)
- Compare and order multiple two-digit numbers using place value understanding and explain reasoning. (1.NBT.3)
- Apply understanding of place value to solve problems. (1.NBT.4–6)
- Explain the effect of adding or subtracting 10 or 100 on a number. (1.NBT.5-6)
- Use standardized measurement tools with precision. (1.MD.1–3)
- Measure and compare lengths using different units and explain differences. (1.MD.1-2)
- Justify measurement strategies using precise vocabulary. (1.MD.1–2)
- Analyze data to make predictions and draw or justify conclusions. (1.MD.4)
- Analyze and compare shapes based on attributes. (1.G.1–3)
- Explain how different shapes can be composed to form the same figure. (1.G.2)
- Justify reasoning about equal shares of partitioned shapes. (1.G.3)