

Student Baseline and Post-Instruction Checklist
Common Core Essential Elements and Instructional Achievement Level Descriptors
Mathematics Grade 4

Student Name: _____
 Teacher: _____

Student Grade: _____
 Date: _____

Common Core State Standard: 4.OA.1. Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.

4.OA.2. Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.OA.1-2. Demonstrate the connection between repeated addition and multiplication.		Indicate Yes or No
Level IV	Student demonstrates the content knowledge and skills at a higher level of complexity than described in Level 3: <ul style="list-style-type: none"> Apply repeated addition to solve a multiplication problem represented with numbers. 	___Y ___N
Level III	Student demonstrates the content knowledge and skills: <ul style="list-style-type: none"> Demonstrate the connection between repeated addition and multiplication. 	___Y ___N
Level II	Student demonstrates some of the content knowledge and skills: <ul style="list-style-type: none"> Demonstrate repeated addition to sums of 10. 	___Y ___N
Level I	Student attempts to perform the task <u>with support</u> : <ul style="list-style-type: none"> Make a set of 10 and count to 10. 	___Y ___N

Common Core State Standard: 4.OA.3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.OA.3. Solve one-step word problems using addition or subtraction.		Indicate Yes or No
Level IV	Student demonstrates the content knowledge and skills at a higher level of complexity than described in Level 3: <ul style="list-style-type: none"> Solve two-step problems using addition or subtraction when a number in the problem is unknown (result, start, change, difference). 	___Y ___N
Level III	Student demonstrates the content knowledge and skills: <ul style="list-style-type: none"> Solve one-step problems using addition or subtraction. 	___Y ___N
Level II	Student demonstrates some of the content knowledge and skills: <ul style="list-style-type: none"> Solve one-step addition or subtraction problems when there is an unknown (result, start, change, difference) up to 10. 	___Y ___N
Level I	Student attempts to perform the task <u>with support</u> : <ul style="list-style-type: none"> Add up to five. 	___Y ___N

Common Core State Standard: 4.OA.4. Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.OA.4. Show one way to arrive at product.		Indicate Yes or No
Level IV	Student demonstrates the content knowledge and skills at a higher level of complexity than described in Level 3: <ul style="list-style-type: none"> Show multiple ways to arrive at the same product. 	___Y ___N
Level III	Student demonstrates the content knowledge and skills: <ul style="list-style-type: none"> Show one way to arrive at a product. 	___Y ___N
Level II	Student demonstrates some of the content knowledge and skills: <ul style="list-style-type: none"> Make equal sets and count to determine the product. 	___Y ___N

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
Level I	Student attempts to perform the task <u>with support</u> : <ul style="list-style-type: none"> Replicate one way to arrive at a product. 	___Y ___N

Common Core State Standard: 4.OA.5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. *For example, given the rule “Add 3” and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.*

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.OA.5. Use repeating patterns to make predictions.		Indicate Yes or No
Level IV	Student demonstrates the content knowledge and skills at a higher level of complexity than described in Level 3: Student demonstrates the content knowledge and skills at a higher level of complexity than described in Level 3: <ul style="list-style-type: none"> Create a pattern based on a given rule and their prediction of what comes next. 	___Y ___N
Level III	Student demonstrates the content knowledge and skills: <ul style="list-style-type: none"> Use repeating patterns to make predictions. 	___Y ___N
Level II	Student demonstrates some of the content knowledge and skills: <ul style="list-style-type: none"> Replicate a pattern. 	___Y ___N
Level I	Student attempts to perform the task <u>with support</u> : <ul style="list-style-type: none"> Differentiate between a pattern and a non-pattern. 	___Y ___N

Common Core State Standard: 4.NBT.1. Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. *For example, recognize that $700 \div 70 = 10$ by applying concepts of place value and division.*

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.NBT.1. Compare numbers to each other based on place value groups by composing		Indicate Yes or No

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
and decomposing to 50.		
Level IV	Student demonstrates the content knowledge and skills at a higher level of complexity than described in Level 3: <ul style="list-style-type: none"> Compare numbers to each other based on place value groups by composing and decomposing greater than 50. 	___Y ___N
Level III	Student demonstrates the content knowledge and skills: <ul style="list-style-type: none"> Compare numbers to each other based on place value groups by composing and decomposing to 50. 	___Y ___N
Level II	Student demonstrates some of the content knowledge and skills: <ul style="list-style-type: none"> Compose and decompose whole numbers to 20. 	___Y ___N
Level I	Student attempts to perform the task <u>with support</u> : <ul style="list-style-type: none"> Identify whole numbers to 10. 	___Y ___N

Common Core State Standard: 4.NBT.2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.NBT.2. Compare whole numbers ($<$, $>$, $=$).		Indicate Yes or No
Level IV	Student demonstrates the content knowledge and skills at a higher level of complexity than described in Level 3: <ul style="list-style-type: none"> Compare whole numbers using symbols ($<$, $>$, $=$). 	___Y ___N
Level III	Student demonstrates the content knowledge and skills: <ul style="list-style-type: none"> Compare whole numbers ($<$, $>$, $=$). 	___Y ___N
Level II	Student demonstrates some of the content knowledge and skills: <ul style="list-style-type: none"> Compare whole numbers ($<$, $>$, $=$) from 0-20. 	___Y ___N
Level I	Student attempts to perform the task <u>with support</u> : <ul style="list-style-type: none"> Compare whole numbers ($<$, $>$) from 0-10. 	___Y ___N

Common Core State Standard: 4.NBT.3. Use place value understanding to round multi-digit whole numbers to any place.

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.NBT.3. Round one- and two-digit whole numbers from 0—50 to the nearest 10.		Indicate Yes or No
Level IV	Student demonstrates the content knowledge and skills at a higher level of complexity than described in Level 3: <ul style="list-style-type: none"> Round one- and two-digit numbers, greater than 50, to the nearest 10. 	___Y ___N
Level III	Student demonstrates the content knowledge and skills: <ul style="list-style-type: none"> Round single one- and two-digit whole numbers from 0-50 to the nearest 10. 	___Y ___N
Level II	Student demonstrates some of the content knowledge and skills: <ul style="list-style-type: none"> Round single one-digit numbers to the nearest 10. 	___Y ___N
Level I	Student attempts to perform the task <u>with support</u> : <ul style="list-style-type: none"> Identify numbers that are more or less than five on a number line. 	___Y ___N

Common Core State Standard: Identify numbers that are more or less than five on a number line.

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.NBT 4. Add and subtract double-digit whole numbers.		Indicate Yes or No
Level IV	Student demonstrates the content knowledge and skills at a higher level of complexity than described in Level 3: <ul style="list-style-type: none"> Add and subtract multi-digit whole numbers. 	___Y ___N
Level III	Student demonstrates the content knowledge and skills: <ul style="list-style-type: none"> Add and subtract double-digit whole numbers. 	___Y ___N
Level II	Student demonstrates some of the content knowledge and skills: <ul style="list-style-type: none"> Solve addition with numbers 20-50 and subtraction problems with numbers 0-20. 	___Y ___N

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
Level I	Student attempts to perform the task <u>with support</u> : <ul style="list-style-type: none"> Solve single digit addition problems to add one to another number. 	___Y ___N

Common Core State Standard: 4.NBT.5. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.NBT 5. N/A (See EE. 4.OA.1.)		Indicate Yes or No

Common Core State Standard: 4.NBT.6. Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.NBT 6. N/A		Indicate Yes or No

Common Core State Standard: 4.NF.1. Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.

4.NF.2. Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $1/2$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.NF.1-2. Understand $2/4 = 1/2$.		Indicate Yes or No
Level IV	Student demonstrates the content knowledge and skills at	

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
	a higher level of complexity than described in Level 3: <ul style="list-style-type: none"> Understand two fractions having unlike denominators are equivalent if they represent the same size portion of a whole. 	___Y ___N
Level III	Student demonstrates the content knowledge and skills: <ul style="list-style-type: none"> Understand $2/4 = 1/2$. 	___Y ___N
Level II	Student demonstrates some of the content knowledge and skills: <ul style="list-style-type: none"> Understand $4/4$ or $2/2 = 1$. 	___Y ___N
Level I	Student attempts to perform the task <u>with support</u> : <ul style="list-style-type: none"> Understand that two halves is equivalent to one whole. 	___Y ___N

Common Core State Standard: 4.NF.3. Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$.

- Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.
- Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. *Examples:* $3/8 = 1/8 + 1/8 + 1/8$; $3/8 = 1/8 + 2/8$; $2 \frac{1}{8} = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8$.
- Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.
- Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.NF.3. Differentiate between whole, half, and fourth.		Indicate Yes or No
Level IV	Student demonstrates the content knowledge and skills at a higher level of complexity than described in Level 3: <ul style="list-style-type: none"> Differentiate fractional parts less than $1/4$. 	___Y ___N
Level III	Student demonstrates the content knowledge and skills: <ul style="list-style-type: none"> Differentiate between whole, half, and fourth. 	___Y ___N
Level II	Student demonstrates some of the content knowledge and skills: <ul style="list-style-type: none"> Differentiate between whole and half. 	___Y ___N

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
Level I	Student attempts to perform the task <u>with support</u> : <ul style="list-style-type: none"> Recognize that fractions are part of a whole. 	___Y ___N

Common Core State Standard: 4.NF.4. Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.

- Understand a fraction a/b as a multiple of $1/b$. *For example, use a visual fraction model to represent $5/4$ as the product $5 \times (1/4)$, recording the conclusion by the equation $5/4 = 5 \times (1/4)$.*
- Understand a multiple of a/b as a multiple of $1/b$, and use this understanding to multiply a fraction by a whole number. *For example, use a visual fraction model to express $3 \times (2/5)$ as $6 \times (1/5)$, recognizing this product as $6/5$. (In general, $n \times (a/b) = (n \times a)/b$.)*
- Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. *For example, if each person at a party will eat $3/8$ of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?*

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.NF.4. N/A (See EE. 4.OA.1-2.)		Indicate Yes or No

Common Core State Standard: 4.NF.5. Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. *For example, express $3/10$ as $30/100$, and add $3/10 + 4/100 = 34/100$.*

4.NF.6. Use decimal notation for fractions with denominators 10 or 100. *For example, rewrite 0.62 as $62/100$; describe a length as 0.62 meters; locate 0.62 on a number line diagram.*

4.NF.7. Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual model.

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.NF.5.-7. N/A (Decimals begin at grade 7).		Indicate Yes or No

Common Core State Standard: 4.MD.1. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. *For example, know that 1 ft. is 12 times as long as 1 in. Express the length of a 4 ft. snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), . . .*

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.MD.1. Identify the smaller measurement units that divide a larger unit within a measurement system.		Indicate Yes or No
Level IV	Student demonstrates the content knowledge and skills at a higher level of complexity than described in Level 3: <ul style="list-style-type: none"> Solve problems by demonstrating whole units can be broken into smaller units. 	___Y ___N
Level III	Student demonstrates the content knowledge and skills: <ul style="list-style-type: none"> Identify the smaller measurement units that divide a larger unit within a measurement system. 	___Y ___N
Level II	Student demonstrates some of the content knowledge and skills: <ul style="list-style-type: none"> Identify standard units of measurements. 	___Y ___N
Level I	Student attempts to perform the task <u>with support</u> : <ul style="list-style-type: none"> Use measurement tools. 	___Y ___N

Common Core State Standard: 4.MD.2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.MD.2.a. Tell time to the half hour using a digital or to the hour using an analog clock.		Indicate Yes or No
Level IV	Student demonstrates the content knowledge and skills at a higher level of complexity than described in Level 3: <ul style="list-style-type: none"> Tell time to the quarter hour using a digital or analog 	___Y ___N

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
	clock.	
Level III	Student demonstrates the content knowledge and skills: <ul style="list-style-type: none"> Tell time to the half hour using a digital clock or to the hour using an analog clock. 	___Y ___N
Level II	Student demonstrates some of the content knowledge and skills: <ul style="list-style-type: none"> Relate time to the hour to activities. 	___Y ___N
Level I	Student attempts to perform the task <u>with support</u> : <ul style="list-style-type: none"> Differentiate a digital and analog clock from other measurement tools as a tool for telling time. 	___Y ___N

Common Core State Standard: 4.MD.2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.MD.2.b. Select the appropriate measurement tool from two related options to solve problems.		Indicate Yes or No
Level IV	Student demonstrates the content knowledge and skills at a higher level of complexity than described in Level 3: <ul style="list-style-type: none"> Use the appropriate measurement tools to solve problems. 	___Y ___N
Level III	Student demonstrates the content knowledge and skills: <ul style="list-style-type: none"> Select the appropriate measurement tool from two related options to solve problems. 	___Y ___N
Level II	Student demonstrates some of the content knowledge and skills: <ul style="list-style-type: none"> Select the appropriate measurement tool from two unrelated options to solve problems. 	___Y ___N

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
Level I	Student attempts to perform the task <u>with support</u> : <ul style="list-style-type: none"> Identify measurement tools. 	___Y ___N

Common Core State Standard: 4.MD.2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.MD.2.c. Use standard measurement to compare lengths of objects.		Indicate Yes or No
Level IV	Student demonstrates the content knowledge and skills at a higher level of complexity than described in Level 3: <ul style="list-style-type: none"> Use standard measurements to compare length of objects and indicate how many each is by standard measures. 	___Y ___N
Level III	Student demonstrates the content knowledge and skills: <ul style="list-style-type: none"> Use standard measurement to compare lengths of objects. 	___Y ___N
Level II	Student demonstrates some of the content knowledge and skills: <ul style="list-style-type: none"> Measure length of objects using standard tools, such as rulers, yardsticks, and meter sticks. 	___Y ___N
Level I	Student attempts to perform the task <u>with support</u> : <ul style="list-style-type: none"> Identify items as long or short. 	___Y ___N

Common Core State Standard: 4.MD.2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.MD.2.d. Identify objects that have volume.		Indicate Yes or No
Level IV	Student demonstrates the content knowledge and skills at a higher level of complexity than described in Level 3: <ul style="list-style-type: none"> Determine volume of a cube by counting units of measure. 	___Y ___N
Level III	Student demonstrates the content knowledge and skills: <ul style="list-style-type: none"> Identify objects that have volume. 	___Y ___N
Level II	Student demonstrates some of the content knowledge and skills: <ul style="list-style-type: none"> Demonstrate solid or full, empty and part full. 	___Y ___N
Level I	Student attempts to perform the task <u>with support</u> : <ul style="list-style-type: none"> Identify vocabulary related to volume (full, empty). 	___Y ___N

Common Core State Standard: 4.MD.2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.MD.2.e. Identify coins (penny, nickel, dime, quarter) and their values.		Indicate Yes or No
Level IV	Student demonstrates the content knowledge and skills at a higher level of complexity than described in Level 3: <ul style="list-style-type: none"> Identify relative value of different collections of coins. 	___Y ___N
Level III	Student demonstrates the content knowledge and skills: <ul style="list-style-type: none"> Identify coins (penny, nickel, dime, quarter) and their values. 	___Y ___N
Level II	Student demonstrates some of the content knowledge and skills: <ul style="list-style-type: none"> Match coins that are alike (penny, nickel, dime, quarter). 	___Y ___N

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
Level I	Student attempts to perform the task <u>with support</u> : <ul style="list-style-type: none"> Select objects that are used for money. 	___Y ___N

Common Core State Standard: 4.MD.3. Apply the area and perimeter formulas for rectangles in real world and mathematical problems. *For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.*

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.MD.3. N/A (Area begins at 6th grade and perimeter begins at 7th grade).		Indicate Yes or No

Common Core State Standard: 4.MD.4. Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Solve problems involving addition and subtraction of fractions by using information presented in line plots. *For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.*

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.MD.4.a. Insert data into a pre-constructed bar graph template.		Indicate Yes or No
Level IV	Student demonstrates the content knowledge and skills at a higher level of complexity than described in Level 3: <ul style="list-style-type: none"> Insert data into a graph to represent a data set with a scale equal to 10 (0 to 10 by ones). 	___Y ___N
Level III	Student demonstrates the content knowledge and skills: <ul style="list-style-type: none"> Insert data into a pre-constructed bar graph template. 	___Y ___N
Level II	Student demonstrates some of the content knowledge and skills: <ul style="list-style-type: none"> Identify an appropriate scale for the data set. 	___Y ___N
Level I	Student attempts to perform the task <u>with support</u> : <ul style="list-style-type: none"> Given a topic, identify appropriate data to collect. 	___Y ___N

Common Core State Standard: 4.MD.4. Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Solve problems involving addition and subtraction of fractions by using information presented in line plots. *For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.*

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.MD.4.b. Interpret data from a variety of graphs to answer questions.		Indicate Yes or No
Level IV	Student demonstrates the content knowledge and skills at a higher level of complexity than described in Level 3: <ul style="list-style-type: none"> Create their own questions that can be answered by the data on a picture and bar graph. 	___Y ___N
Level III	Student demonstrates the content knowledge and skills: <ul style="list-style-type: none"> Interpret data from a variety of graphs to answer questions. 	___Y ___N
Level II	Student demonstrates some of the content knowledge and skills: <ul style="list-style-type: none"> Make observational statements about data in a picture and bar graph. 	___Y ___N
Level I	Student attempts to perform the task <u>with support</u> : <ul style="list-style-type: none"> Demonstrate awareness that symbols may be used to represent objects and events. 	___Y ___N

Common Core State Standard: 4.MD.5. Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:

- An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through $\frac{1}{360}$ of a circle is called a “one-degree angle,” and can be used to measure angles.
- An angle that turns through n one-degree angles is said to have an angle measure of n degrees.

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.MD.5. Recognize angles in geometric shapes.		Indicate Yes or No
Level IV	Student demonstrates the content knowledge and skills at a higher level of complexity than described in Level 3: <ul style="list-style-type: none"> Label different types of angles in geometric shapes. 	___Y ___N

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
Level III	Student demonstrates the content knowledge and skills: <ul style="list-style-type: none"> Recognize angles in geometric shapes. 	___Y ___N
Level II	Student demonstrates some of the content knowledge and skills: <ul style="list-style-type: none"> Identify an angle. 	___Y ___N
Level I	Student attempts to perform the task <u>with support</u> : <ul style="list-style-type: none"> Identify shapes that contain angles. 	___Y ___N

Common Core State Standard: 4.MD.6. Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.MD.6. Identify angles as larger and smaller.		Indicate Yes or No
Level IV	Student demonstrates the content knowledge and skills at a higher level of complexity than described in Level 3: <ul style="list-style-type: none"> Construct angles of various sizes. 	___Y ___N
Level III	Student demonstrates the content knowledge and skills: <ul style="list-style-type: none"> Identify angles as larger and smaller. 	___Y ___N
Level II	Student demonstrates some of the content knowledge and skills: <ul style="list-style-type: none"> Differentiate angles in shapes. 	___Y ___N
Level I	Student attempts to perform the task <u>with support</u> : <ul style="list-style-type: none"> Replicate an angle. 	___Y ___N

Common Core State Standard: 4.MD.7. Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.MD.7. N/A (See EE4.MD.5.)		Indicate Yes or No

4.G.1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.G.1. Distinguish between parallel and intersecting lines.		Indicate Yes or No
Level IV	Student demonstrates the content knowledge and skills at a higher level of complexity than described in Level 3: <ul style="list-style-type: none"> Create a representation of parallel and intersecting lines. 	___Y ___N
Level III	Student demonstrates the content knowledge and skills: <ul style="list-style-type: none"> Distinguish between parallel and intersecting lines. 	___Y ___N
Level II	Student demonstrates some of the content knowledge and skills: <ul style="list-style-type: none"> Identify an intersecting line. 	___Y ___N
Level I	Student attempts to perform the task <u>with support</u> : <ul style="list-style-type: none"> Identify a line. 	___Y ___N

Common Core State Standard: 4.G.2. Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.G.2. Distinguish between different attributes of shapes (lines, curves, angles).		Indicate Yes or No
Level IV	Student demonstrates the content knowledge and skills at a higher level of complexity than described in Level 3: <ul style="list-style-type: none"> Classify shapes according to attributes. 	___Y ___N

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
Level III	Student demonstrates the content knowledge and skills: <ul style="list-style-type: none"> Distinguish between different attributes of shapes (lines, curves, angles). 	___Y ___N
Level II	Student demonstrates some of the content knowledge and skills: <ul style="list-style-type: none"> Identify attributes of geometric shapes. 	___Y ___N
Level I	Student attempts to perform the task <u>with support</u> : <ul style="list-style-type: none"> Identify curves. 	___Y ___N

Common Core State Standard: 4.G.3. Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.

Common Core Essential Elements - Math	Instructional Achievement Level Descriptors	Estimated Level of Student Proficiency
EE4.G.3. Recognize a line of symmetry in a simple shape.		Indicate Yes or No
Level IV	Student demonstrates the content knowledge and skills at a higher level of complexity than described in Level 3: <ul style="list-style-type: none"> Locate the line of symmetry in a geometric shape. 	___Y ___N
Level III	Student demonstrates the content knowledge and skills: <ul style="list-style-type: none"> Recognize a line of symmetry in a simple shape. 	___Y ___N
Level II	Student demonstrates some of the content knowledge and skills: <ul style="list-style-type: none"> Recognize polygons. 	___Y ___N
Level I	Student attempts to perform the task <u>with support</u> : <ul style="list-style-type: none"> Recognize simple shapes (square, triangle, and rectangle). 	___Y ___N