



ReadyMade™ Fractions 1

correlated to

Florida's Sunshine State Standards

2nd Grade

Strand A: Number Sense, Concepts, and Operations

Standard 1: The student understands the different ways numbers are represented and used in the real world.

Benchmark MA.A.1.1.3: The student uses objects to represent whole numbers or commonly used fractions and relates these numbers to real-world situations.

2. represents, compares, and explains halves, thirds, quarters, and eighths as part of a whole and part of a set, using concrete materials and drawings.

Comparing Fractions: Level 1 – Using Shapes. In this activity, students will be comparing fractions to decide if one fraction is greater than ($>$), less than ($<$), or equal to ($=$) a second fraction. Each fraction is expressed as a numerical symbol and as a picture (a circle divided into sections).

Comparing Fractions: Level 2 – Using a Comparison Bar. In this activity, students will be comparing fraction bars to decide whether a fraction is greater than, less than, or equal to a second fraction. They will verify their answer using a comparison bar. Each fraction is expressed as a numerical symbol and as a fraction bar.

Comparing Fractions: Level 3 – Create Fraction Bars. In this activity, students will be deciding if one fraction is greater than, less than, or equal to a second fraction. They will create fraction bars and use comparison bars to show their thinking and verify their answers.

Comparing Fractions: Level 4 – Words and Symbols. In this activity, students will be deciding if one fraction is greater than, less than, or equal to a second fraction. They will create fraction bars and use comparison bars to show their thinking and verify their answers.



Comparing Fractions: Level 5 – Word Problems. In this activity, students will read a series of word problems. The fractions in the word problems include both parts of a whole and parts of a set. They will be deciding if one fraction is greater than, less than, or equal to a second fraction. They will use on-screen manipulatives to show their thinking and verify their answers.

3. uses concrete materials to compare fractions in real-life situations.

Comparing Fractions: Level 5 – Word Problems. In this activity, students will read a series of word problems. The fractions in the word problems include both parts of a whole and parts of a set. They will be deciding if one fraction is greater than, less than, or equal to a second fraction. They will use on-screen manipulatives to show their thinking and verify their answers.

4. knows that the total of equivalent fractional parts makes a whole (for example, eight eighths equal one whole).

Equivalent Fractions: Level 5 – Lowest Common Denominator. In this activity, students will create a fraction bar that represents the object pictured on the page. They will then create an equivalent fraction with the lowest common denominator.

Strand B: Measurement

Standard 1: The student measures quantities in the real world and uses the measures to solve problems.

Benchmark MA.B.1.1.1: The student uses and describes basic measurement concepts including length, weight, digital and analog time, temperature, and capacity.

1. knows how to communicate measurement concepts.

Number Line Fractions: Level 1- Measuring to the Nearest Fourth. In this activity, students will be using a number line divided into fourths. They will be given a series of objects and asked to measure each object along the number line, giving their answer to the nearest fourth.

Number Line Fractions: Level 2- Measuring to the Nearest Tenth. In this activity, students will be using a number line divided into tenths.



They will be given a series of objects and asked to measure each object along the number line, giving their answer to the nearest tenth.

Number Line Fractions: Level 3 - Comparing Tenths and Fourths. In this activity, students will use two number lines, one divided into fourths and one divided into tenths. They are asked to measure each object along both number lines, decide which number line gives a more accurate measurement, and record that answer.

2. demonstrates an understanding of customary and metric measurement of length and distance, selecting appropriate units of measurement (for example, inches, feet, yards, centimeters, meters).

Number Line Fractions: Level 1- Measuring to the Nearest Fourth. In this activity, students will be using a number line divided into fourths. They will be given a series of objects and asked to measure each object along the number line, giving their answer to the nearest fourth.

Number Line Fractions: Level 2- Measuring to the Nearest Tenth. In this activity, students will be using a number line divided into tenths. They will be given a series of objects and asked to measure each object along the number line, giving their answer to the nearest tenth.

Number Line Fractions: Level 3 - Comparing Tenths and Fourths. In this activity, students will use two number lines, one divided into fourths and one divided into tenths. They are asked to measure each object along both number lines, decide which number line gives a more accurate measurement, and record that answer.

Benchmark MA.B.1.1.2: The student uses standard customary and metric (centimeter, inch) and nonstandard units, such as links or blocks, in measuring real quantities.

1. measures length, weight, and capacity of objects using standard and nonstandard units.

Number Line Fractions: Level 1- Measuring to the Nearest Fourth. In this activity, students will be using a number line divided into fourths. They will be given a series of objects and asked to measure each object along the number line, giving their answer to the nearest fourth.



Number Line Fractions: Level 2- Measuring to the Nearest Tenth. In this activity, students will be using a number line divided into tenths. They will be given a series of objects and asked to measure each object along the number line, giving their answer to the nearest tenth.

Number Line Fractions: Level 3 - Comparing Tenths and Fourths. In this activity, students will use two number lines, one divided into fourths and one divided into tenths. They are asked to measure each object along both number lines, decide which number line gives a more accurate measurement, and record that answer.

Number Line Fractions: Level 5 – Reading Number Lines. In this activity, students will determine into how many fractional parts a number line has been divided. Then they will report the location of an animal on that number line as a fraction.

Standard 2: The student compares, contrasts, and converts within systems of measurement (both standard/nonstandard and metric/customary).

Benchmark MA.B.2.1.1: The student uses direct (measured) and indirect (not measured) comparisons to order objects according to some measurable characteristics (length, weight).

1. uses nonstandard methods to compare and order objects according to their lengths, weights, or capacities.

Sorting Fractions: Level 1 – Smallest to Largest Fraction Pictures. In this activity, students will be asked to sort pictures of food that has been divided into fractions. They will move the pan or dish with the smallest fraction to the left and the pan or dish with the largest fraction to the right, matching each to fraction symbols on the page.

Sorting Fractions: Level 2 – Fraction Bars. In this activity, students will be asked to sort fraction bars from the smallest on the left to the largest fraction bar on the right. Problems include fractions with different denominators (from halves to fifths).

Sorting Fractions: Level 3 – Different Denominators. In this activity, students will be asked to sort fraction bars from the smallest on the left to the largest fraction bar on the right. Problems include fractions with different denominators (from halves to twenty-fifths).



Sorting Fractions: Level 4 – Fraction Symbols. In this activity, students will be asked to sort fraction symbols, from the smallest on the left to the largest fraction symbol on the right. Fractions will usually have different denominators (from halves to twelfths).

Sorting Fractions: Level 5 – Pictures and Fraction Bars. In this activity, students will be asked to sort fraction pictures, from the smallest on the left to the largest fraction pictures on the right. Fractions will usually have different denominators (from thirds to twelfths). Students are encouraged to create fraction bars to check their work.

2. uses nonstandard, indirect methods to compare and order objects according to their lengths.

Sorting Fractions: Level 2 – Fraction Bars. In this activity, students will be asked to sort fraction bars from the smallest on the left to the largest fraction bar on the right. Problems include fractions with different denominators (from halves to fifths).

Sorting Fractions: Level 3 – Different Denominators. In this activity, students will be asked to sort fraction bars from the smallest on the left to the largest fraction bar on the right. Problems include fractions with different denominators (from halves to twenty-fifths).

3rd Grade

Strand A: Number Sense, Concepts, and Operations

Standard 1: The student understands the different ways numbers are represented and used in the real world.

Benchmark MA.A.1.2.1: The student names whole numbers combining 3-digit numeration (hundreds, tens, ones) and the use of number periods, such as ones, thousands, and millions and associates verbal names, written word names, and standard numerals with whole numbers, commonly used fractions, decimals, and percents.

2. reads, writes, and identifies proper fractions with denominators including 2, 3, 4, 5, 6, 8, 10, and 100.



Comparing Fractions: Level 1 – Using Shapes. In this activity, students will be comparing fractions to decide if one fraction is greater than ($>$), less than ($<$), or equal to ($=$) a second fraction. Each fraction is expressed as a numerical symbol and as a picture (a circle divided into sections).

Comparing Fractions: Level 2 – Using a Comparison Bar. In this activity, students will be comparing fraction bars to decide whether a fraction is greater than, less than, or equal to a second fraction. They will verify their answer using a comparison bar. Each fraction is expressed as a numerical symbol and as a fraction bar.

Comparing Fractions: Level 3 – Create Fraction Bars. In this activity, students will be deciding if one fraction is greater than, less than, or equal to a second fraction. They will create fraction bars and use comparison bars to show their thinking and verify their answers.

Comparing Fractions: Level 4 – Words and Symbols. In this activity, students will be deciding if one fraction is greater than, less than, or equal to a second fraction. They will create fraction bars and use comparison bars to show their thinking and verify their answers.

Comparing Fractions: Level 5 – Word Problems. In this activity, students will read a series of word problems. The fractions in the word problems include both parts of a whole and parts of a set. They will be deciding if one fraction is greater than, less than, or equal to a second fraction. They will use on-screen manipulatives to show their thinking and verify their answers.

Equivalent Fractions: Level 1 – Matching. In this activity, students will be matching fraction pictures of brownies with numerical symbols. Students will be working with halves, thirds, quarters, sixths, and eighths.

Equivalent Fractions: Level 2 – Using a Comparison Bar. In this activity, students will be given one fraction bar and asked to create a different but equivalent fraction bar. Students will be working with thirds, fourths, fifths, sixths, ninths, twelfths, and twentieths.

Equivalent Fractions: Level 3 – Four Fractions Bar. In this activity, students will be given one fraction bar and asked to create three different but equivalent fraction bars. Students will be given fraction



bars showing thirds, fourths, fifths, sixths, ninths, twelfths, and twentieths.

Equivalent Fractions: Level 4 – Fraction Symbols and Fraction Bars. In this activity, students will be given a fraction symbol and asked to make a fraction bar that is different from but equivalent to symbols showing thirds, fourths, fifths, sixths, eighths, tenths, and twelfths.

Equivalent Fractions: Level 5 – Lowest Common Denominator. In this activity, students will create a fraction bar that represents the object pictured on the page. They will then create an equivalent fraction with the lowest common denominator.

Number Line Fractions: Level 1- Measuring to the Nearest Fourth. In this activity, students will be using a number line divided into fourths. They will be given a series of objects and asked to measure each object along the number line, giving their answer to the nearest fourth.

Number Line Fractions: Level 2- Measuring to the Nearest Tenth. In this activity, students will be using a number line divided into tenths. They will be given a series of objects and asked to measure each object along the number line, giving their answer to the nearest tenth.

Number Line Fractions: Level 3 - Comparing Tenths and Fourths. In this activity, students will use two number lines, one divided into fourths and one divided into tenths. They are asked to measure each object along both number lines, decide which number line gives a more accurate measurement, and record that answer.

Number Line Fractions: Level 4 – Addition and Subtraction. In this activity, students will use a number line to help them visualize and understand addition and subtraction of fractions.

Number Line Fractions: Level 5 – Reading Number Lines. In this activity, students will determine into how many fractional parts a number line has been divided. Then they will report the location of an animal on that number line as a fraction.

Parts of a Set: Level 1 – Using a Fraction Bar. In this activity, students will use a fraction bar to represent the number of circles in a set that are black. The denominator represents the total number of items in the set. The numerator indicates the number of black circles. Sets contain 5 to 12 objects.



Parts of a Set: Level 2 – Creating a Fraction Bar. In this activity, students create a fraction bar with a denominator that represents the total number of items in the set. Then they will change the numerator to indicate the number of black circles in the set. Sets contain 5 to 12 objects.

Parts of a Set: Level 3 – Two Fraction Bars. In this activity, students create two fraction bars, each with a denominator that represents the total number of items in a set. One of the numerators indicates the number of black circles in the set; the other shows the number of green circles. Sets contain 4 to 16 objects.

Parts of a Set: Level 4 – Creating Sets and Fraction Bars. In this activity, students insert a specific number of green and black circles on the page and then create a fraction bar to show the number of black circles in the set. Sets contain 4 to 16 objects.

Parts of a Set: Level 5 – Word Problems. In this activity, students will read questions about sets of objects. Then they will create a fraction bar to answer the question about the items in the set.

Sorting Fractions: Level 1 – Smallest to Largest Fraction Pictures. In this activity, students will be asked to sort pictures of food that has been divided into fractions. They will move the pan or dish with the smallest fraction to the left and the pan or dish with the largest fraction to the right, matching each to fraction symbols on the page.

Sorting Fractions: Level 2 – Fraction Bars. In this activity, students will be asked to sort fraction bars from the smallest on the left to the largest fraction bar on the right. Problems include fractions with different denominators (from halves to fifths).

Sorting Fractions: Level 3 – Different Denominators. In this activity, students will be asked to sort fraction bars from the smallest on the left to the largest fraction bar on the right. Problems include fractions with different denominators (from halves to twenty-fifths).

Sorting Fractions: Level 4 – Fraction Symbols. In this activity, students will be asked to sort fraction symbols, from the smallest on the left to the largest fraction symbol on the right. Fractions will usually have different denominators (from halves to twelfths).



Sorting Fractions: Level 5 – Pictures and Fraction Bars. In this activity, students will be asked to sort fraction pictures, from the smallest on the left to the largest fraction pictures on the right. Fractions will usually have different denominators (from thirds to twelfths). Students are encouraged to create fraction bars to check their work.

Benchmark MA.A.1.2.2: The student understands the relative size of whole numbers, commonly used fractions, decimals, and percents.

1. uses language and symbols ($>$, $<$, $=$) to compare the relative size of numbers in the same form.

Comparing Fractions: Level 1 – Using Shapes. In this activity, students will be comparing fractions to decide if one fraction is greater than ($>$), less than ($<$), or equal to ($=$) a second fraction. Each fraction is expressed as a numerical symbol and as a picture (a circle divided into sections).

Comparing Fractions: Level 2 – Using a Comparison Bar. In this activity, students will be comparing fraction bars to decide whether a fraction is greater than, less than, or equal to a second fraction. They will verify their answer using a comparison bar. Each fraction is expressed as a numerical symbol and as a fraction bar.

Comparing Fractions: Level 3 – Create Fraction Bars. In this activity, students will be deciding if one fraction is greater than, less than, or equal to a second fraction. They will create fraction bars and use comparison bars to show their thinking and verify their answers.

Comparing Fractions: Level 4 – Words and Symbols. In this activity, students will be deciding if one fraction is greater than, less than, or equal to a second fraction. They will create fraction bars and use comparison bars to show their thinking and verify their answers.

Comparing Fractions: Level 5 – Word Problems. In this activity, students will read a series of word problems. The fractions in the word problems include both parts of a whole and parts of a set. They will be deciding if one fraction is greater than, less than, or equal to a second fraction. They will use on-screen manipulatives to show their thinking and verify their answers.



3. compares and orders commonly used fractions, including halves, thirds, fourths, fifths, sixths and eighths, using concrete materials.

Comparing Fractions: Level 1 – Using Shapes. In this activity, students will be comparing fractions to decide if one fraction is greater than ($>$), less than ($<$), or equal to ($=$) a second fraction. Each fraction is expressed as a numerical symbol and as a picture (a circle divided into sections).

Comparing Fractions: Level 2 – Using a Comparison Bar. In this activity, students will be comparing fraction bars to decide whether a fraction is greater than, less than, or equal to a second fraction. They will verify their answer using a comparison bar. Each fraction is expressed as a numerical symbol and as a fraction bar.

Comparing Fractions: Level 3 – Create Fraction Bars. In this activity, students will be deciding if one fraction is greater than, less than, or equal to a second fraction. They will create fraction bars and use comparison bars to show their thinking and verify their answers.

Comparing Fractions: Level 4 – Words and Symbols. In this activity, students will be deciding if one fraction is greater than, less than, or equal to a second fraction. They will create fraction bars and use comparison bars to show their thinking and verify their answers.

Comparing Fractions: Level 5 – Word Problems. In this activity, students will read a series of word problems. The fractions in the word problems include both parts of a whole and parts of a set. They will be deciding if one fraction is greater than, less than, or equal to a second fraction. They will use on-screen manipulatives to show their thinking and verify their answers.

Sorting Fractions: Level 1 – Smallest to Largest Fraction Pictures. In this activity, students will be asked to sort pictures of food that has been divided into fractions. They will move the pan or dish with the smallest fraction to the left and the pan or dish with the largest fraction to the right, matching each to fraction symbols on the page.

Sorting Fractions: Level 2 – Fraction Bars. In this activity, students will be asked to sort fraction bars from the smallest on the left to the largest fraction bar on the right. Problems include fractions with different denominators (from halves to fifths).



Sorting Fractions: Level 3 – Different Denominators. In this activity, students will be asked to sort fraction bars from the smallest on the left to the largest fraction bar on the right. Problems include fractions with different denominators (from halves to twenty-fifths).

Sorting Fractions: Level 4 – Fraction Symbols. In this activity, students will be asked to sort fraction symbols, from the smallest on the left to the largest fraction symbol on the right. Fractions will usually have different denominators (from halves to twelfths).

Sorting Fractions: Level 5 – Pictures and Fraction Bars. In this activity, students will be asked to sort fraction pictures, from the smallest on the left to the largest fraction pictures on the right. Fractions will usually have different denominators (from thirds to twelfths). Students are encouraged to create fraction bars to check their work.

Benchmark MA.A.1.2.4: The student understands that numbers can be represented in a variety of equivalent forms using whole numbers, decimals, fractions, and percents.

1. uses concrete materials to model equivalent forms of whole numbers and common fractions.

Equivalent Fractions: Level 1 – Matching. In this activity, students will be matching fraction pictures of brownies with numerical symbols. Students will be working with halves, thirds, quarters, sixths, and eighths.

Equivalent Fractions: Level 2 – Using a Comparison Bar. In this activity, students will be given one fraction bar and asked to create a different but equivalent fraction bar. Students will be working with thirds, fourths, fifths, sixths, ninths, twelfths, and twentieths.

Equivalent Fractions: Level 3 – Four Fractions Bar. In this activity, students will be given one fraction bar and asked to create three different but equivalent fraction bars. Students will be given fraction bars showing thirds, fourths, fifths, sixths, ninths, twelfths, and twentieths.

Equivalent Fractions: Level 4 – Fraction Symbols and Fraction Bars. In this activity, students will be given a fraction symbol and asked to



make a fraction bar that is different from but equivalent to symbols showing thirds, fourths, fifths, sixths, eighths, tenths, and twelfths.

Equivalent Fractions: Level 5 – Lowest Common Denominator. In this activity, students will create a fraction bar that represents the object pictured on the page. They will then create an equivalent fraction with the lowest common denominator.

2. identifies equivalent forms of numbers.

Equivalent Fractions: Level 1 – Matching. In this activity, students will be matching fraction pictures of brownies with numerical symbols. Students will be working with halves, thirds, quarters, sixths, and eighths.

Equivalent Fractions: Level 2 – Using a Comparison Bar. In this activity, students will be given one fraction bar and asked to create a different but equivalent fraction bar. Students will be working with thirds, fourths, fifths, sixths, ninths, twelfths, and twentieths.

Equivalent Fractions: Level 3 – Four Fractions Bar. In this activity, students will be given one fraction bar and asked to create three different but equivalent fraction bars. Students will be given fraction bars showing thirds, fourths, fifths, sixths, ninths, twelfths, and twentieths.

Equivalent Fractions: Level 4 – Fraction Symbols and Fraction Bars. In this activity, students will be given a fraction symbol and asked to make a fraction bar that is different from but equivalent to symbols showing thirds, fourths, fifths, sixths, eighths, tenths, and twelfths.

Equivalent Fractions: Level 5 – Lowest Common Denominator. In this activity, students will create a fraction bar that represents the object pictured on the page. They will then create an equivalent fraction with the lowest common denominator.

Standard 3: The student understands the effects of operations on numbers and the relationship among these operations, selects appropriate operations, and computes for problem solving.



Benchmark MA.A.3.2.2: The student selects the appropriate operation to solve specific problems involving addition, subtraction, and multiplication of whole numbers, decimals, and fractions, and division of whole numbers.

2. uses problem-solving strategies to determine the operation needed to solve one-step problems involving addition, subtraction, multiplication, and division of whole numbers.

Comparing Fractions: Level 5 – Word Problems. In this activity, students will read a series of word problems. The fractions in the word problems include both parts of a whole and parts of a set. They will be deciding if one fraction is greater than, less than, or equal to a second fraction. They will use on-screen manipulatives to show their thinking and verify their answers.

Parts of a Set: Level 5 – Word Problems. In this activity, students will read questions about sets of objects. Then they will create a fraction bar to answer the question about the items in the set.

Strand B: Measurement

Standard 1: The student measures quantities in the real world and uses the measures to solve problems.

Benchmark MA.B.1.2.1: The student uses concrete and graphic models to develop procedures for solving problems related to measurement including length, weight, time, temperature, perimeter, area, volume, and angle.

1. knows measurement concepts and can use oral and written language to communicate them.

Number Line Fractions: Level 1- Measuring to the Nearest Fourth. In this activity, students will be using a number line divided into fourths. They will be given a series of objects and asked to measure each object along the number line, giving their answer to the nearest fourth.

Number Line Fractions: Level 2- Measuring to the Nearest Tenth. In this activity, students will be using a number line divided into tenths. They will be given a series of objects and asked to measure each object along the number line, giving their answer to the nearest tenth.



Number Line Fractions: Level 3 - Comparing Tenths and Fourths. In this activity, students will use two number lines, one divided into fourths and one divided into tenths. They are asked to measure each object along both number lines, decide which number line gives a more accurate measurement, and record that answer.

Number Line Fractions: Level 4 – Addition and Subtraction. In this activity, students will use a number line to help them visualize and understand addition and subtraction of fractions.

Number Line Fractions: Level 5 – Reading Number Lines. In this activity, students will determine into how many fractional parts a number line has been divided. Then they will report the location of an animal on that number line as a fraction.

Standard 4: The student selects and uses appropriate units and instruments for measurement to achieve the degree of precision and accuracy required in real-world situations.

Benchmark MA.B.4.2.1: The student determines which units of measurement, such as seconds, square inches, dollars per tankful, to use with answers to real-world problems.

1. selects an appropriate measurement unit for labeling the solution to real-world problems.

Comparing Fractions: Level 5 – Word Problems. In this activity, students will read a series of word problems. The fractions in the word problems include both parts of a whole and parts of a set. They will be deciding if one fraction is greater than, less than, or equal to a second fraction. They will use on-screen manipulatives to show their thinking and verify their answers.

Strand E: Data Analysis and Probability

Benchmark MA.E.1.2.3: The student analyzes real-world data to recognize patterns and relationships of the measures of central tendency using tables, charts, histograms, bar graphs, line graphs, pictographs, and circle graphs generated by appropriate technology, including calculators and computers.



1. uses a calculator to compare data.

Parts of a Set: Level 1 – Using a Fraction Bar. In this activity, students will use a fraction bar to represent the number of circles in a set that are black. The denominator represents the total number of items in the set. The numerator indicates the number of black circles. Sets contain 5 to 12 objects.

Parts of a Set: Level 2 – Creating a Fraction Bar. In this activity, students create a fraction bar with a denominator that represents the total number of items in the set. Then they will change the numerator to indicate the number of black circles in the set. Sets contain 5 to 12 objects.

Parts of a Set: Level 3 – Two Fraction Bars. In this activity, students create two fraction bars, each with a denominator that represents the total number of items in a set. One of the numerators indicates the number of black circles in the set; the other shows the number of green circles. Sets contain 4 to 16 objects.

Parts of a Set: Level 4 – Creating Sets and Fraction Bars. In this activity, students insert a specific number of green and black circles on the page and then create a fraction bar to show the number of black circles in the set. Sets contain 4 to 16 objects.

Parts of a Set: Level 5 – Word Problems. In this activity, students will read questions about sets of objects. Then they will create a fraction bar to answer the question about the items in the set.

2. in class projects, constructs and discusses patterns in computer-generated graphs using real-world problems (for example, identify most popular pizza topping).

Parts of a Set: Level 1 – Using a Fraction Bar. In this activity, students will use a fraction bar to represent the number of circles in a set that are black. The denominator represents the total number of items in the set. The numerator indicates the number of black circles. Sets contain 5 to 12 objects.

Parts of a Set: Level 2 – Creating a Fraction Bar. In this activity, students create a fraction bar with a denominator that represents the total number of items in the set. Then they will change the numerator to indicate the number of black circles in the set. Sets contain 5 to 12 objects.



Parts of a Set: Level 3 – Two Fraction Bars. In this activity, students create two fraction bars, each with a denominator that represents the total number of items in a set. One of the numerators indicates the number of black circles in the set; the other shows the number of green circles. Sets contain 4 to 16 objects.

Parts of a Set: Level 4 – Creating Sets and Fraction Bars. In this activity, students insert a specific number of green and black circles on the page and then create a fraction bar to show the number of black circles in the set. Sets contain 4 to 16 objects.

Parts of a Set: Level 5 – Word Problems. In this activity, students will read questions about sets of objects. Then they will create a fraction bar to answer the question about the items in the set.

4th Grade

Strand A: Number Sense, Concepts, and Operations

Standard 1: The student understands the different ways numbers are represented and used in the real world.

Benchmark MA.A.1.2.1: The student names whole numbers combining 3-digit numeration (hundreds, tens, ones) and the use of number periods, such as ones, thousands, and millions and associates verbal names, written word names, and standard numerals with whole numbers, commonly used fractions, decimals, and percents.

2. reads, writes, and identifies fractions and mixed numbers with denominators including 2, 3, 4, 5, 6, 8, 10, 12, 20, 25, 100, and 1000.

Comparing Fractions: Level 1 – Using Shapes. In this activity, students will be comparing fractions to decide if one fraction is greater than ($>$), less than ($<$), or equal to ($=$) a second fraction. Each fraction is expressed as a numerical symbol and as a picture (a circle divided into sections).

Comparing Fractions: Level 2 – Using a Comparison Bar. In this activity, students will be comparing fraction bars to decide whether a



fraction is greater than, less than, or equal to a second fraction. They will verify their answer using a comparison bar. Each fraction is expressed as a numerical symbol and as a fraction bar.

Comparing Fractions: Level 3 – Create Fraction Bars. In this activity, students will be deciding if one fraction is greater than, less than, or equal to a second fraction. They will create fraction bars and use comparison bars to show their thinking and verify their answers.

Comparing Fractions: Level 4 – Words and Symbols. In this activity, students will be deciding if one fraction is greater than, less than, or equal to a second fraction. They will create fraction bars and use comparison bars to show their thinking and verify their answers.

Comparing Fractions: Level 5 – Word Problems. In this activity, students will read a series of word problems. The fractions in the word problems include both parts of a whole and parts of a set. They will be deciding if one fraction is greater than, less than, or equal to a second fraction. They will use on-screen manipulatives to show their thinking and verify their answers.

Equivalent Fractions: Level 1 – Matching. In this activity, students will be matching fraction pictures of brownies with numerical symbols. Students will be working with halves, thirds, quarters, sixths, and eighths.

Equivalent Fractions: Level 2 – Using a Comparison Bar. In this activity, students will be given one fraction bar and asked to create a different but equivalent fraction bar. Students will be working with thirds, fourths, fifths, sixths, ninths, twelfths, and twentieths.

Equivalent Fractions: Level 3 – Four Fractions Bar. In this activity, students will be given one fraction bar and asked to create three different but equivalent fraction bars. Students will be given fraction bars showing thirds, fourths, fifths, sixths, ninths, twelfths, and twentieths.

Equivalent Fractions: Level 4 – Fraction Symbols and Fraction Bars. In this activity, students will be given a fraction symbol and asked to make a fraction bar that is different from but equivalent to symbols showing thirds, fourths, fifths, sixths, eighths, tenths, and twelfths.

Equivalent Fractions: Level 5 – Lowest Common Denominator. In this activity, students will create a fraction bar that represents the



object pictured on the page. They will then create an equivalent fraction with the lowest common denominator.

Number Line Fractions: Level 1- Measuring to the Nearest Fourth.

In this activity, students will be using a number line divided into fourths. They will be given a series of objects and asked to measure each object along the number line, giving their answer to the nearest fourth.

Number Line Fractions: Level 2- Measuring to the Nearest Tenth. In

this activity, students will be using a number line divided into tenths. They will be given a series of objects and asked to measure each object along the number line, giving their answer to the nearest tenth.

Number Line Fractions: Level 3 - Comparing Tenths and Fourths. In

this activity, students will use two number lines, one divided into fourths and one divided into tenths. They are asked to measure each object along both number lines, decide which number line gives a more accurate measurement, and record that answer.

Number Line Fractions: Level 4 – Addition and Subtraction. In this activity, students will use a number line to help them visualize and understand addition and subtraction of fractions.

Number Line Fractions: Level 5 – Reading Number Lines. In this activity, students will determine into how many fractional parts a number line has been divided. Then they will report the location of an animal on that number line as a fraction.

Parts of a Set: Level 1 – Using a Fraction Bar. In this activity, students will use a fraction bar to represent the number of circles in a set that are black. The denominator represents the total number of items in the set. The numerator indicates the number of black circles. Sets contain 5 to 12 objects.

Parts of a Set: Level 2 – Creating a Fraction Bar. In this activity, students create a fraction bar with a denominator that represents the total number of items in the set. Then they will change the numerator to indicate the number of black circles in the set. Sets contain 5 to 12 objects.

Parts of a Set: Level 3 – Two Fraction Bars. In this activity, students create two fraction bars, each with a denominator that represents the total number of items in a set. One of the numerators indicates the



number of black circles in the set; the other shows the number of green circles. Sets contain 4 to 16 objects.

Parts of a Set: Level 4 – Creating Sets and Fraction Bars. In this activity, students insert a specific number of green and black circles on the page and then create a fraction bar to show the number of black circles in the set. Sets contain 4 to 16 objects.

Parts of a Set: Level 5 – Word Problems. In this activity, students will read questions about sets of objects. Then they will create a fraction bar to answer the question about the items in the set.

Sorting Fractions: Level 1 – Smallest to Largest Fraction Pictures. In this activity, students will be asked to sort pictures of food that has been divided into fractions. They will move the pan or dish with the smallest fraction to the left and the pan or dish with the largest fraction to the right, matching each to fraction symbols on the page.

Sorting Fractions: Level 2 – Fraction Bars. In this activity, students will be asked to sort fraction bars from the smallest on the left to the largest fraction bar on the right. Problems include fractions with different denominators (from halves to fifths).

Sorting Fractions: Level 3 – Different Denominators. In this activity, students will be asked to sort fraction bars from the smallest on the left to the largest fraction bar on the right. Problems include fractions with different denominators (from halves to twenty-fifths).

Sorting Fractions: Level 4 – Fraction Symbols. In this activity, students will be asked to sort fraction symbols, from the smallest on the left to the largest fraction symbol on the right. Fractions will usually have different denominators (from halves to twelfths).

Sorting Fractions: Level 5 – Pictures and Fraction Bars. In this activity, students will be asked to sort fraction pictures, from the smallest on the left to the largest fraction pictures on the right. Fractions will usually have different denominators (from thirds to twelfths). Students are encouraged to create fraction bars to check their work.

Benchmark MA.A.1.2.2: The student understands the relative size of whole numbers, commonly used fractions, decimals, and percents.



1. uses language and symbols ($>$, $<$, $=$) to compare numbers in the same form and in two different forms such as $_ < 1$.

Equivalent Fractions: Level 1 – Matching. In this activity, students will be matching fraction pictures of brownies with numerical symbols. Students will be working with halves, thirds, quarters, sixths, and eighths.

Equivalent Fractions: Level 2 – Using a Comparison Bar. In this activity, students will be given one fraction bar and asked to create a different but equivalent fraction bar. Students will be working with thirds, fourths, fifths, sixths, ninths, twelfths, and twentieths.

Equivalent Fractions: Level 3 – Four Fractions Bar. In this activity, students will be given one fraction bar and asked to create three different but equivalent fraction bars. Students will be given fraction bars showing thirds, fourths, fifths, sixths, ninths, twelfths, and twentieths.

Equivalent Fractions: Level 4 – Fraction Symbols and Fraction Bars. In this activity, students will be given a fraction symbol and asked to make a fraction bar that is different from but equivalent to symbols showing thirds, fourths, fifths, sixths, eighths, tenths, and twelfths.

Equivalent Fractions: Level 5 – Lowest Common Denominator. In this activity, students will create a fraction bar that represents the object pictured on the page. They will then create an equivalent fraction with the lowest common denominator

Comparing Fractions: Level 1 – Using Shapes. In this activity, students will be comparing fractions to decide if one fraction is greater than ($>$), less than ($<$), or equal to ($=$) a second fraction. Each fraction is expressed as a numerical symbol and as a picture (a circle divided into sections).

Comparing Fractions: Level 2 – Using a Comparison Bar. In this activity, students will be comparing fraction bars to decide whether a fraction is greater than, less than, or equal to a second fraction. They will verify their answer using a comparison bar. Each fraction is expressed as a numerical symbol and as a fraction bar.

Comparing Fractions: Level 3 – Create Fraction Bars. In this activity, students will be deciding if one fraction is greater than, less than, or



equal to a second fraction. They will create fraction bars and use comparison bars to show their thinking and verify their answers.

Comparing Fractions: Level 4 – Words and Symbols. In this activity, students will be deciding if one fraction is greater than, less than, or equal to a second fraction. They will create fraction bars and use comparison bars to show their thinking and verify their answers.

Comparing Fractions: Level 5 – Word Problems. In this activity, students will read a series of word problems. The fractions in the word problems include both parts of a whole and parts of a set. They will be deciding if one fraction is greater than, less than, or equal to a second fraction. They will use on-screen manipulatives to show their thinking and verify their answers.

3. compares and orders commonly used fractions and decimals to hundredths using concrete materials, drawings, and numerals.

Comparing Fractions: Level 1 – Using Shapes. In this activity, students will be comparing fractions to decide if one fraction is greater than ($>$), less than ($<$), or equal to ($=$) a second fraction. Each fraction is expressed as a numerical symbol and as a picture (a circle divided into sections).

Comparing Fractions: Level 2 – Using a Comparison Bar. In this activity, students will be comparing fraction bars to decide whether a fraction is greater than, less than, or equal to a second fraction. They will verify their answer using a comparison bar. Each fraction is expressed as a numerical symbol and as a fraction bar.

Comparing Fractions: Level 3 – Create Fraction Bars. In this activity, students will be deciding if one fraction is greater than, less than, or equal to a second fraction. They will create fraction bars and use comparison bars to show their thinking and verify their answers.

Comparing Fractions: Level 4 – Words and Symbols. In this activity, students will be deciding if one fraction is greater than, less than, or equal to a second fraction. They will create fraction bars and use comparison bars to show their thinking and verify their answers.

Comparing Fractions: Level 5 – Word Problems. In this activity, students will read a series of word problems. The fractions in the word problems include both parts of a whole and parts of a set. They will be deciding if one fraction is greater than, less than, or equal to a second



fraction. They will use on-screen manipulatives to show their thinking and verify their answers.

Sorting Fractions: Level 1 – Smallest to Largest Fraction Pictures. In this activity, students will be asked to sort pictures of food that has been divided into fractions. They will move the pan or dish with the smallest fraction to the left and the pan or dish with the largest fraction to the right, matching each to fraction symbols on the page.

Sorting Fractions: Level 2 – Fraction Bars. In this activity, students will be asked to sort fraction bars from the smallest on the left to the largest fraction bar on the right. Problems include fractions with different denominators (from halves to fifths).

Sorting Fractions: Level 3 – Different Denominators. In this activity, students will be asked to sort fraction bars from the smallest on the left to the largest fraction bar on the right. Problems include fractions with different denominators (from halves to twenty-fifths).

Sorting Fractions: Level 4 – Fraction Symbols. In this activity, students will be asked to sort fraction symbols, from the smallest on the left to the largest fraction symbol on the right. Fractions will usually have different denominators (from halves to twelfths).

Sorting Fractions: Level 5 – Pictures and Fraction Bars. In this activity, students will be asked to sort fraction pictures, from the smallest on the left to the largest fraction pictures on the right. Fractions will usually have different denominators (from thirds to twelfths). Students are encouraged to create fraction bars to check their work.

4. locates whole numbers, fractions, mixed numbers, and decimals on a number line.

Number Line Fractions: Level 1- Measuring to the Nearest Fourth. In this activity, students will be using a number line divided into fourths. They will be given a series of objects and asked to measure each object along the number line, giving their answer to the nearest fourth.

Number Line Fractions: Level 2- Measuring to the Nearest Tenth. In this activity, students will be using a number line divided into tenths. They will be given a series of objects and asked to measure each object along the number line, giving their answer to the nearest tenth.



Number Line Fractions: Level 3 - Comparing Tenths and Fourths. In this activity, students will use two number lines, one divided into fourths and one divided into tenths. They are asked to measure each object along both number lines, decide which number line gives a more accurate measurement, and record that answer.

Number Line Fractions: Level 4 – Addition and Subtraction. In this activity, students will use a number line to help them visualize and understand addition and subtraction of fractions.

Number Line Fractions: Level 5 – Reading Number Lines. In this activity, students will determine into how many fractional parts a number line has been divided. Then they will report the location of an animal on that number line as a fraction.

Benchmark MA.A.1.2.3: The student understands concrete and symbolic representations of whole numbers, fractions, decimals, and percents in real-world situations.

1. translates problem situations into diagrams and models using whole numbers, fractions, mixed numbers and decimals to hundredths including money notation.

Parts of a Set: Level 5 – Word Problems. In this activity, students will read questions about sets of objects. Then they will create a fraction bar to answer the question about the items in the set.

Benchmark MA.A.1.2.4: The student understands that numbers can be represented in a variety of equivalent forms using whole numbers, decimals, fractions, and percents.

1. uses concrete materials to model equivalent forms of whole numbers, fractions, and decimals.

Equivalent Fractions: Level 1 – Matching. In this activity, students will be matching fraction pictures of brownies with numerical symbols. Students will be working with halves, thirds, quarters, sixths, and eighths.

Equivalent Fractions: Level 2 – Using a Comparison Bar. In this activity, students will be given one fraction bar and asked to create a



different but equivalent fraction bar. Students will be working with thirds, fourths, fifths, sixths, ninths, twelfths, and twentieths.

Equivalent Fractions: Level 3 – Four Fractions Bar. In this activity, students will be given one fraction bar and asked to create three different but equivalent fraction bars. Students will be given fraction bars showing thirds, fourths, fifths, sixths, ninths, twelfths, and twentieths.

Equivalent Fractions: Level 4 – Fraction Symbols and Fraction Bars. In this activity, students will be given a fraction symbol and asked to make a fraction bar that is different from but equivalent to symbols showing thirds, fourths, fifths, sixths, eighths, tenths, and twelfths.

Equivalent Fractions: Level 5 – Lowest Common Denominator. In this activity, students will create a fraction bar that represents the object pictured on the page. They will then create an equivalent fraction with the lowest common denominator.

2. identifies equivalent forms of numbers.

Equivalent Fractions: Level 1 – Matching. In this activity, students will be matching fraction pictures of brownies with numerical symbols. Students will be working with halves, thirds, quarters, sixths, and eighths.

Equivalent Fractions: Level 2 – Using a Comparison Bar. In this activity, students will be given one fraction bar and asked to create a different but equivalent fraction bar. Students will be working with thirds, fourths, fifths, sixths, ninths, twelfths, and twentieths.

Equivalent Fractions: Level 3 – Four Fractions Bar. In this activity, students will be given one fraction bar and asked to create three different but equivalent fraction bars. Students will be given fraction bars showing thirds, fourths, fifths, sixths, ninths, twelfths, and twentieths.

Equivalent Fractions: Level 4 – Fraction Symbols and Fraction Bars. In this activity, students will be given a fraction symbol and asked to make a fraction bar that is different from but equivalent to symbols showing thirds, fourths, fifths, sixths, eighths, tenths, and twelfths.

Equivalent Fractions: Level 5 – Lowest Common Denominator. In this activity, students will create a fraction bar that represents the



object pictured on the page. They will then create an equivalent fraction with the lowest common denominator.

3. knows that two numbers in different forms are equivalent or non-equivalent, using whole numbers, decimals, fractions, and mixed numbers.

Equivalent Fractions: Level 1 – Matching. In this activity, students will be matching fraction pictures of brownies with numerical symbols. Students will be working with halves, thirds, quarters, sixths, and eighths.

Equivalent Fractions: Level 2 – Using a Comparison Bar. In this activity, students will be given one fraction bar and asked to create a different but equivalent fraction bar. Students will be working with thirds, fourths, fifths, sixths, ninths, twelfths, and twentieths.

Equivalent Fractions: Level 3 – Four Fractions Bar. In this activity, students will be given one fraction bar and asked to create three different but equivalent fraction bars. Students will be given fraction bars showing thirds, fourths, fifths, sixths, ninths, twelfths, and twentieths.

Equivalent Fractions: Level 4 – Fraction Symbols and Fraction Bars. In this activity, students will be given a fraction symbol and asked to make a fraction bar that is different from but equivalent to symbols showing thirds, fourths, fifths, sixths, eighths, tenths, and twelfths.

Equivalent Fractions: Level 5 – Lowest Common Denominator. In this activity, students will create a fraction bar that represents the object pictured on the page. They will then create an equivalent fraction with the lowest common denominator.

Standard 3: The student understands the effects of operations on numbers and the relationship among these operations, selects appropriate operations, and computes for problem solving.

Benchmark MA.A.3.2.1: The student understands and explains the effects of addition, subtraction, and multiplication on whole numbers, decimals, and fractions, including mixed numbers, and the effects of division on whole numbers, including the inverse relationship of multiplication and division.



4. explains and demonstrates the addition and subtraction of common fractions using concrete materials, drawings, story problems, and algorithms.

Number Line Fractions: Level 4 – Addition and Subtraction. In this activity, students will use a number line to help them visualize and understand addition and subtraction of fractions.

7. predicts the relative size of solutions in the following:

- addition, subtraction, multiplication, and division of whole numbers
- addition and subtraction of common fractions

Number Line Fractions: Level 4 – Addition and Subtraction. In this activity, students will use a number line to help them visualize and understand addition and subtraction of fractions.

- addition and subtraction of decimals to hundredths.

Benchmark MA.A.3.2.3: The student adds, subtracts, and multiplies whole numbers, decimals, and fractions, including mixed numbers, and divides whole numbers to solve real-world problems, using appropriate methods of computing, such as mental mathematics, paper and pencil, and calculator.

1. solves real-world problems involving addition, subtraction, multiplication, and division of whole numbers, and addition and subtraction of decimals and fractions using an appropriate method (for example, mental math, pencil and paper, calculator).

Number Line Fractions: Level 4 – Addition and Subtraction. In this activity, students will use a number line to help them visualize and understand addition and subtraction of fractions.

2. explains the reason for choosing a particular computing method for a particular problem.

Number Line Fractions: Level 4 – Addition and Subtraction. In this activity, students will use a number line to help them visualize and understand addition and subtraction of fractions.



5. solves real-world problems involving the addition or subtraction of decimals (to hundredths) or common fractions with like or unlike denominators.

Number Line Fractions: Level 4 – Addition and Subtraction. In this activity, students will use a number line to help them visualize and understand addition and subtraction of fractions.

Strand B: Measurement

Standard 1: The student measures quantities in the real world and uses the measures to solve problems.

Benchmark MA.B.1.2.1: The student uses concrete and graphic models to develop procedures for solving problems related to measurement including length, weight, time, temperature, perimeter, area, volume, and angle.

1. knows measurement concepts and can use oral and written language to communicate them.

Number Line Fractions: Level 1- Measuring to the Nearest Fourth. In this activity, students will be using a number line divided into fourths. They will be given a series of objects and asked to measure each object along the number line, giving their answer to the nearest fourth.

Number Line Fractions: Level 2- Measuring to the Nearest Tenth. In this activity, students will be using a number line divided into tenths. They will be given a series of objects and asked to measure each object along the number line, giving their answer to the nearest tenth.

Number Line Fractions: Level 3 - Comparing Tenths and Fourths. In this activity, students will use two number lines, one divided into fourths and one divided into tenths. They are asked to measure each object along both number lines, decide which number line gives a more accurate measurement, and record that answer.

Number Line Fractions: Level 5 – Reading Number Lines. In this activity, students will determine into how many fractional parts a



number line has been divided. Then they will report the location of an animal on that number line as a fraction.

2. uses a wide variety of models (for example, manipulatives, diagrams) and applies counting procedures to investigate measurements of length, area, volume, and perimeter.

Number Line Fractions: Level 1- Measuring to the Nearest Fourth.

In this activity, students will be using a number line divided into fourths. They will be given a series of objects and asked to measure each object along the number line, giving their answer to the nearest fourth.

Number Line Fractions: Level 2- Measuring to the Nearest Tenth.

In this activity, students will be using a number line divided into tenths. They will be given a series of objects and asked to measure each object along the number line, giving their answer to the nearest tenth.

Number Line Fractions: Level 3 - Comparing Tenths and Fourths.

In this activity, students will use two number lines, one divided into fourths and one divided into tenths. They are asked to measure each object along both number lines, decide which number line gives a more accurate measurement, and record that answer.

Number Line Fractions: Level 5 – Reading Number Lines.

In this activity, students will determine into how many fractional parts a number line has been divided. Then they will report the location of an animal on that number line as a fraction.

Strand E: Data Analysis and Probability

Standard 1: The student understands and uses the tools of data analysis for managing information.

Benchmark MA.E.1.2.3: The student analyzes real-world data to recognize patterns and relationships of the measures of central tendency using tables, charts, histograms, bar graphs, line graphs, pictographs, and circle graphs generated by appropriate technology, including calculators and computers.

2. uses computer applications to examine and evaluate data.

Sorting Fractions: Level 1 – Smallest to Largest Fraction Pictures.

In this activity, students will be asked to sort pictures of food that has



been divided into fractions. They will move the pan or dish with the smallest fraction to the left and the pan or dish with the largest fraction to the right, matching each to fraction symbols on the page.

Sorting Fractions: Level 2 – Fraction Bars. In this activity, students will be asked to sort fraction bars from the smallest on the left to the largest fraction bar on the right. Problems include fractions with different denominators (from halves to fifths).

Sorting Fractions: Level 3 – Different Denominators. In this activity, students will be asked to sort fraction bars from the smallest on the left to the largest fraction bar on the right. Problems include fractions with different denominators (from halves to twenty-fifths).

Sorting Fractions: Level 4 – Fraction Symbols. In this activity, students will be asked to sort fraction symbols, from the smallest on the left to the largest fraction symbol on the right. Fractions will usually have different denominators (from halves to twelfths).

Sorting Fractions: Level 5 – Pictures and Fraction Bars. In this activity, students will be asked to sort fraction pictures, from the smallest on the left to the largest fraction pictures on the right. Fractions will usually have different denominators (from thirds to twelfths). Students are encouraged to create fraction bars to check their work.