ReadyMade™ Fractions 2

correlated to

Texas' Essential Knowledge and Skills for Mathematics (TEKS)[1]

§111.14. Mathematics, Grade 2.

(b) Knowledge and skills.

(2) Number, operation, and quantitative reasoning. The student uses fraction names and symbols to describe fractional parts of whole objects or sets of objects. The student is expected to:

(A) name fractional parts of a whole object (not to exceed twelfths) when given a concrete representation

Adding Fractions: Level 5 – Word Problems and Lowest Common Denominators. In this activity, students will read a series of word problems. The fractions in the word problems will have different denominators. Students will use fraction bars to represent the fractions, convert them to fractions with common denominators, and show their answer.

Subtracting Fractions: Level 5 – Word Problems, Answer in Lowest Terms . In this activity, students will create fraction bars to show the equation presented in a subtraction word problem. They will then create another fraction bar that shows the answer in lowest terms.

Rounding Fractions: Level 5 – Word Problems. In this activity, students read word problems that ask them to round given fractions to the nearest appropriate unit. They place fraction bars on the page and use the comparison bar to check their work.

[1] Statutory Authority: The provisions of this Subchapter A issued under the Texas Education Code, §28.002, unless otherwise noted.§111.11. Implementation of Texas Essential Knowledge and Skills for Mathematics, Grades K-5.The provisions of this subchapter shall be implemented by school districts beginning September 1, 1998, and at that time shall supersede §75.27(a)-(f) of this title (relating to Mathematics).

Fractions and Decimals: Level 5 – Word Problems. Fractions can be represented as decimals. In this activity students will read a problem and create a fraction bar to answer the question. Then they use a Counting Box to find the decimal equivalent.

Data Analysis: Level 5: Word Problems. In this activity, students will be reading word problems and solving the problems by using fractions, decimals, and percentages.

(B) name fractional parts of a set of objects (not to exceed twelfths) when given a concrete representation

Adding Fractions: Level 5 – Word Problems and Lowest Common Denominators. In this activity, students will read a series of word problems. The fractions in the word problems will have different denominators. Students will use fraction bars to represent the fractions, convert them to fractions with common denominators, and show their answer.

Subtracting Fractions: Level 5 – Word Problems, Answer in Lowest Terms . In this activity, students will create fraction bars to show the equation presented in a subtraction word problem. They will then create another fraction bar that shows the answer in lowest terms.

Rounding Fractions: Level 5 – Word Problems. In this activity, students read word problems that ask them to round given fractions to the nearest appropriate unit. They place fraction bars on the page and use the comparison bar to check their work.

Fractions and Decimals: Level 5 – Word Problems. Fractions can be represented as decimals. In this activity students will read a problem and create a fraction bar to answer the question. Then they use a Counting Box to find the decimal equivalent.

Data Analysis: Level 5: Word Problems. In this activity, students will be reading word problems and solving the problems by using fractions, decimals, and percentages.

(11) Probability and statistics. The student organizes data to make it useful for interpreting information. The student is expected to:

(B) draw conclusions and answer questions based on picture graphs and bar-type graphs

Data Analysis: Level 4: Reporting Survey Results. In this activity, students will be looking at pictographs of survey information and reporting the results of the surveys as fractions and percents. The last three problems invite students to make their own surveys and report the results.

(12) Underlying processes and mathematical tools. The student applies Grade 2 mathematics to solve problems connected to everyday experiences and activities in and outside of school. The student is expected to:

(D) use tools such as real objects, manipulatives, and technology to solve problems

Adding Fractions: Level 1 – Pictures and Fraction Symbols. In this activity, students will be matching fraction pictures to fraction symbols, thus illustrating a given equation that adds fractions.

Adding Fractions: Level 2 – Common Denominators. In this activity, students will be given two fraction bars with the same denominator. They will add the numerators and show their answer on a third fraction bar.

Adding Fractions: Level 3 – Mixed Denominators. In this activity, students will be adding two fractions with different denominators. They will use fraction bars to help them find the lowest common denominator and then to solve the problem.

Adding Fractions: Level 4 – Word Problems. In this activity, students will be reading word problems and creating fraction bars to show both the problem and its solution.

Adding Fractions: Level 5 – Word Problems and Lowest Common Denominators. In this activity, students will read a series of word problems. The fractions in the word problems will have different denominators. Students will use fraction bars to represent the fractions, convert them to fractions with common denominators, and show their answer.

Subtracting Fractions: Level 1 – Pictures and Fraction Symbols. In this activity, students will be matching fraction pictures to fraction

symbols, thus illustrating a given equation that subtracts fractions. Subtraction problems use halves, thirds, quarters, sixths, and eighths.

Subtracting Fractions: Level 2 – Common Denominators. In this activity, students will be given two fraction bars with the same denominator. They will subtract the numerators and show their answer on a third fraction bar.

Subtracting Fractions: Level 3 – Mixed Denominators. In this activity, students will be subtracting two fractions with different denominators. They will use fraction bars to help them find the lowest common denominator and then to solve the problem.

Subtracting Fractions: Level 4 – Word Problems and Lowest Common Denominators. In this activity, students will be reading word problems with common denominators, creating fraction bars to show the problem, subtracting, and creating a fraction bar to show the solution to the problem.

Subtracting Fractions: Level 5 – Word Problems, Answer in Lowest Terms . In this activity, students will create fraction bars to show the equation presented in a subtraction word problem. They will then create another fraction bar that shows the answer in lowest terms.

Rounding Fractions: Level 5 – Word Problems. In this activity, students read word problems that ask them to round given fractions to the nearest appropriate unit. They place fraction bars on the page and use the comparison bar to check their work.

Fractions and Decimals: Level 5 – Word Problems. Fractions can be represented as decimals. In this activity students will read a problem and create a fraction bar to answer the question. Then they use a Counting Box to find the decimal equivalent.

Data Analysis: Level 5: Word Problems. In this activity, students will be reading word problems and solving the problems by using fractions, decimals, and percentages.

(13) Underlying processes and mathematical tools. The student communicates about Grade 2 mathematics using informal language. The student is expected to:

(A) explain and record observations using objects, words, pictures, numbers, and technology

Data Analysis: Level 1 – Graphing and Fractions. Fraction bars can be used to show the results of repeating an event such as flipping a coin. In this activity, students will be asked create data by flipping a coin or spinning a spinner. Then they report the results of the event using fraction bars.

Data Analysis: Level 2: Reporting with Fractions. Fraction bars can be used to show the results of repeating an event such as flipping a coin. In this activity, students will be asked create data by flipping a coin or spinning a spinner. Then they report the results of the event using fraction bars.

Data Analysis: Level 3: Fractions, Decimals, Percentages. Percentage Fraction bars can be used to illustrate the results of the coin flipping. The same results can be reported as percentages. In this activity, students will create a set of data and report it both as fractions and as percents.

Data Analysis: Level 4: Reporting Survey Results. In this activity, students will be looking at pictographs of survey information and reporting the results of the surveys as fractions and percents. The last three problems invite students to make their own surveys and report the results.

Data Analysis: Level 5: Word Problems. In this activity, students will be reading word problems and solving the problems by using fractions, decimals, and percentages.

§111.15. Mathematics, Grade 3.

(b) Knowledge and skills.

(2) Number, operation, and quantitative reasoning. The student uses fraction names and symbols to describe fractional parts of whole objects or sets of objects. The student is expected to:

(A) construct concrete models of fractions

Adding Fractions: Level 1 – Pictures and Fraction Symbols. In this activity, students will be matching fraction pictures to fraction symbols, thus illustrating a given equation that adds fractions.

Adding Fractions: Level 2 – Common Denominators. In this activity, students will be given two fraction bars with the same denominator. They will add the numerators and show their answer on a third fraction bar.

Adding Fractions: Level 3 – Mixed Denominators. In this activity, students will be adding two fractions with different denominators. They will use fraction bars to help them find the lowest common denominator and then to solve the problem.

Adding Fractions: Level 4 – Word Problems. In this activity, students will be reading word problems and creating fraction bars to show both the problem and its solution.

Adding Fractions: Level 5 – Word Problems and Lowest Common Denominators. In this activity, students will read a series of word problems. The fractions in the word problems will have different denominators. Students will use fraction bars to represent the fractions, convert them to fractions with common denominators, and show their answer.

Subtracting Fractions: Level 1 – Pictures and Fraction Symbols. In this activity, students will be matching fraction pictures to fraction symbols, thus illustrating a given
equation that subtracts fractions. Subtraction problems use halves, thirds, quarters, sixths, and eighths.

Subtracting Fractions: Level 2 – Common Denominators. In this activity, students will be given two fraction bars with the same denominator. They will subtract the numerators and show their answer on a third fraction bar.

Subtracting Fractions: Level 3 – Mixed Denominators. In this activity, students will be subtracting two fractions with different denominators. They will use fraction bars to help them find the lowest common denominator and then to solve the problem.

Subtracting Fractions: Level 4 – Word Problems and Lowest Common Denominators. In this activity, students will be reading word problems with common denominators, creating fraction bars to show the problem, subtracting, and creating a fraction
bar to show the solution to the problem.

Subtracting Fractions: Level 5 – Word Problems, Answer in Lowest Terms . In this activity, students will create fraction bars to show the equation presented in a subtraction word problem. They will then create another fraction bar that shows the answer in lowest terms.

Rounding Fractions: Level 1 – Half or Whole. In this activity, students will be deciding whether they need a whole or a half of a particular food item. This decision involves rounding. In this activity, students will be rounding to the nearest half or whole.

Rounding Fractions: Level 2 – Nearest Half. In this activity, students will be rounding to the nearest half. They will be deciding if a fraction bar is closer to 0, to 1 / 2, or to 1 whole.

Rounding Fractions: Level 3 – Adding a Fraction Bar. In this activity, students create a fraction bar described in the problem. They decide whether the fraction is closer to 0, to 1/2, or 1 and use numbers at the bottom to insert their answer.

Rounding Fractions: Level 4 – Nearest Tenth. In this activity, students round given fractions to the nearest tenth. They can use the tenths fraction bar provided on the page and the comparison bar to check their work. Problems 1–5 involve addition; problems 6–10 involve subtraction.

Rounding Fractions: Level 5 – Word Problems. In this activity, students read word problems that ask them to round given fractions to the nearest appropriate unit. They place fraction bars on the page and use the comparison bar to check their work.

Fractions and Decimals: Level 1 – Fraction Bar and Counting Box. Both fractions and decimals show parts of a whole. In this activity students create fraction bars to represent the filled area of a decimal grid or fill a decimal grid to be equivalent to a fraction bar.

Fractions and Decimals: Level 2 – Fraction Bars and Counting Box. Fractions can also be represented as decimals. In this activity, students move fraction bars to match the
correct decimal equivalent. They can use the Counting Box to check their work.

Fractions and Decimals: Level 3 – Writing Decimal Equivalents. Fractions can also be represented as decimals. In this activity, students

use numbers to write the correct decimal equivalent. They can use the Counting Box to check their work.

Fractions and Decimals: Level 4 – Making Fraction Equivalents. Decimals can be represented as fractions. Students will make the fraction bars that are equivalent to given decimal amounts. They can move the fraction to the Counting Box to check their work.

Fractions and Decimals: Level 5 – Word Problems. Fractions can be represented as decimals. In this activity students will read a problem and create a fraction bar to answer the question. Then they use a Counting Box to find the decimal equivalent.

Data Analysis: Level 1 – Graphing and Fractions. Fraction bars can be used to show the results of repeating an event such as flipping a coin. In this activity, students will be asked create data by flipping a coin or spinning a spinner. Then they report the results of the event using fraction bars.

Data Analysis: Level 2: Reporting with Fractions. Fraction bars can be used to show the results of repeating an event such as flipping a coin. In this activity, students will be asked create data by flipping a coin or spinning a spinner. Then they report the results of the event using fraction bars.

Data Analysis: Level 3: Fractions, Decimals, Percentages. Percentage Fraction bars can be used to illustrate the results of the coin flipping. The same results can be reported as percentages. In this activity, students will create a set of data and report it both as fractions and as percents.

Data Analysis: Level 4: Reporting Survey Results. In this activity, students will be looking at pictographs of survey information and reporting the results of the surveys as fractions and percents. The last three problems invite students to make their own surveys and report the results.

Data Analysis: Level 5: Word Problems. In this activity, students will be reading word problems and solving the problems by using fractions, decimals, and percentages.

(B) compare fractional parts of whole objects or sets of objects in a problem situation using concrete models

Adding Fractions: Level 4 – Word Problems. In this activity, students will be reading word problems and creating fraction bars to show both the problem and its solution.

Adding Fractions: Level 5 – Word Problems and Lowest Common Denominators. In this activity, students will read a series of word problems. The fractions in the word problems will have different denominators. Students will use fraction bars to represent the fractions, convert them to fractions with common denominators, and show their answer.

Subtracting Fractions: Level 4 – Word Problems and Lowest Common Denominators. In this activity, students will be reading word problems with common denominators, creating fraction bars to show the problem, subtracting, and creating a fraction bar to show the solution to the problem.

Subtracting Fractions: Level 5 – Word Problems, Answer in Lowest Terms . In this activity, students will create fraction bars to show the equation presented in a subtraction word problem. They will then create another fraction bar that shows the answer in lowest terms.

Rounding Fractions: Level 1 – Half or Whole. In this activity, students will be deciding whether they need a whole or a half of a particular food item. This decision involves rounding. In this activity, students will be rounding to the nearest half or whole.

Rounding Fractions: Level 5 – Word Problems. In this activity, students read word problems that ask them to round given fractions to the nearest appropriate unit. They place fraction bars on the page and use the comparison bar to check their work.

Fractions and Decimals: Level 5 – Word Problems. Fractions can be represented as decimals. In this activity students will read a problem and create a fraction bar to answer the question. Then they use a Counting Box to find the decimal equivalent.

Data Analysis: Level 4: Reporting Survey Results. In this activity, students will be looking at pictographs of survey information and reporting the results of the surveys as fractions and percents. The last three problems invite students to make their own surveys and report the results.

Data Analysis: Level 5: Word Problems. In this activity, students will be reading word problems and solving the problems by using fractions, decimals, and percentages.

(C) use fraction names and symbols to describe fractional parts of whole objects or sets of objects with denominators of 12 or less

Adding Fractions: Level 4 – Word Problems. In this activity, students will be reading word problems and creating fraction bars to show both the problem and its solution.

Adding Fractions: Level 5 – Word Problems and Lowest Common Denominators. In this activity, students will read a series of word problems. The fractions in the word problems will have different denominators. Students will use fraction bars to represent the fractions, convert them to fractions with common denominators, and show their answer.

Subtracting Fractions: Level 4 – Word Problems and Lowest Common Denominators. In this activity, students will be reading word problems with common denominators, creating fraction bars to show the problem, subtracting, and creating a fraction bar to show the solution to the problem.

Subtracting Fractions: Level 5 – Word Problems, Answer in Lowest Terms . In this activity, students will create fraction bars to show the equation presented in a subtraction word problem. They will then create another fraction bar that shows the answer in lowest terms.

Rounding Fractions: Level 1 – Half or Whole. In this activity, students will be deciding whether they need a whole or a half of a particular food item. This decision involves rounding. In this activity, students will be rounding to the nearest half or whole.

Rounding Fractions: Level 5 – Word Problems. In this activity, students read word problems that ask them to round given fractions to the nearest appropriate unit. They place fraction bars on the page and use the comparison bar to check their work.

Fractions and Decimals: Level 5 – Word Problems. Fractions can be represented as decimals. In this activity students will read a problem and create a fraction bar to answer the question. Then they use a Counting Box to find the decimal equivalent.

Data Analysis: Level 4: Reporting Survey Results. In this activity, students will be looking at pictographs of survey information and reporting the results of the surveys as fractions and percents. The last three problems invite students to make their own surveys and report the results.

Data Analysis: Level 5: Word Problems. In this activity, students will be reading word problems and solving the problems by using fractions, decimals, and percentages.

(D) construct concrete models of equivalent fractions for fractional parts of whole objects

Adding Fractions: Level 4 – Word Problems. In this activity, students will be reading word problems and creating fraction bars to show both the problem and its solution.

Adding Fractions: Level 5 – Word Problems and Lowest Common Denominators. In this activity, students will read a series of word problems. The fractions in the word problems will have different denominators. Students will use fraction bars to represent the fractions, convert them to fractions with common denominators, and show their answer.

Subtracting Fractions: Level 4 – Word Problems and Lowest Common Denominators. In this activity, students will be reading word problems with common denominators, creating fraction bars to show the problem, subtracting, and creating a fraction bar to show the solution to the problem.

Subtracting Fractions: Level 5 – Word Problems, Answer in Lowest Terms . In this activity, students will create fraction bars to show the equation presented in a subtraction word problem. They will then create another fraction bar that shows the answer in lowest terms.

Rounding Fractions: Level 1 – Half or Whole. In this activity, students will be deciding whether they need a whole or a half of a particular food item. This decision involves rounding. In this activity, students will be rounding to the nearest half or whole.

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Data Analysis: Level 5: Word Problems. In this activity, students will be reading word problems and solving the problems by using fractions, decimals, and percentages.

(14) Probability and statistics. The student solves problems by collecting, organizing, displaying, and interpreting sets of data. The student is expected to:

(B) interpret information from pictographs and bar graphs

Data Analysis: Level 4: Reporting Survey Results. In this activity, students will be looking at pictographs of survey information and reporting the results of the surveys as fractions and percents. The last three problems invite students to make their own surveys and report the results.

(15) Underlying processes and mathematical tools. The student applies Grade 3 mathematics to solve problems connected to everyday experiences and activities in and outside of school. The student is expected to:

(D) use tools such as real objects, manipulatives, and technology to solve problems

Adding Fractions: Level 1 – Pictures and Fraction Symbols. In this activity, students will be matching fraction pictures to fraction symbols, thus illustrating a given equation that adds fractions.

Adding Fractions: Level 2 – Common Denominators. In this activity, students will be given two fraction bars with the same denominator. They will add the numerators and show their answer on a third fraction bar.

Adding Fractions: Level 3 – Mixed Denominators. In this activity, students will be adding two fractions with different denominators. They will use fraction bars to help them find the lowest common denominator and then to solve the problem.

Adding Fractions: Level 4 – Word Problems. In this activity, students will be reading word problems and creating fraction bars to show both the problem and its solution.

Adding Fractions: Level 5 – Word Problems and Lowest Common Denominators. In this activity, students will read a series of word problems. The fractions in the word problems will have different denominators. Students will use fraction bars to represent the fractions, convert them to fractions with common denominators, and show their answer.

Subtracting Fractions: Level 1 – Pictures and Fraction Symbols. In this activity, students will be matching fraction pictures to fraction symbols, thus illustrating a given
equation that subtracts fractions. Subtraction problems use halves, thirds, quarters, sixths, and eighths.

Subtracting Fractions: Level 2 – Common Denominators. In this activity, students will be given two fraction bars with the same denominator. They will subtract the numerators and show their answer on a third fraction bar.

Subtracting Fractions: Level 3 – Mixed Denominators. In this activity, students will be subtracting two fractions with different denominators. They will use fraction bars to help them find the lowest common denominator and then to solve the problem.

Subtracting Fractions: Level 4 – Word Problems and Lowest Common Denominators. In this activity, students will be reading word problems with common denominators, creating fraction bars to show the problem, subtracting, and creating a fraction
bar to show the solution to the problem.

Subtracting Fractions: Level 5 – Word Problems, Answer in Lowest Terms . In this activity, students will create fraction bars to show the equation presented in a subtraction word problem. They will then create another fraction bar that shows the answer in lowest terms.

Rounding Fractions: Level 1 – Half or Whole. In this activity, students will be deciding whether they need a whole or a half of a particular food item. This decision involves rounding. In this activity, students will be rounding to the nearest half or whole.

Rounding Fractions: Level 2 – Nearest Half. In this activity, students will be rounding to the nearest half. They will be deciding if a fraction bar is closer to 0, to 1 / 2, or to 1 whole.

Rounding Fractions: Level 3 – Adding a Fraction Bar. In this activity, students create a fraction bar described in the problem. They decide whether the fraction is closer to 0, to 1/2, or 1 and use numbers at the bottom to insert their answer.

Rounding Fractions: Level 4 – Nearest Tenth. In this activity, students round given fractions to the nearest tenth. They can use the tenths fraction bar provided on the page and the comparison bar to check their work. Problems 1–5 involve addition; problems 6–10 involve subtraction.

Rounding Fractions: Level 5 – Word Problems. In this activity, students read word problems that ask them to round given fractions to the nearest appropriate unit. They place fraction bars on the page and use the comparison bar to check their work.

Fractions and Decimals: Level 1 – Fraction Bar and Counting Box. Both fractions and decimals show parts of a whole. In this activity students create fraction bars to represent the filled area of a decimal grid or fill a decimal grid to be equivalent to a fraction bar.

Fractions and Decimals: Level 2 – Fraction Bars and Counting Box. Fractions can also be represented as decimals. In this activity, students move fraction bars to match the
correct decimal equivalent. They can use the Counting Box to check their work.

Fractions and Decimals: Level 3 – Writing Decimal Equivalents. Fractions can also be represented as decimals. In this activity, students use numbers to write the correct decimal equivalent. They can use the Counting Box to check their work.

Fractions and Decimals: Level 4 – Making Fraction Equivalents. Decimals can be represented as fractions. Students will make the

fraction bars that are equivalent to given decimal amounts. They can move the fraction to the Counting Box to check their work.

Fractions and Decimals: Level 5 – Word Problems. Fractions can be represented as decimals. In this activity students will read a problem and create a fraction bar to answer the question. Then they use a Counting Box to find the decimal equivalent.

Data Analysis: Level 1 – Graphing and Fractions. Fraction bars can be used to show the results of repeating an event such as flipping a coin. In this activity, students will be asked create data by flipping a coin or spinning a spinner. Then they report the results of the event using fraction bars.

Data Analysis: Level 2: Reporting with Fractions. Fraction bars can be used to show the results of repeating an event such as flipping a coin. In this activity, students will be asked create data by flipping a coin or spinning a spinner. Then they report the results of the event using fraction bars.

Data Analysis: Level 3: Fractions, Decimals, Percentages. Percentage Fraction bars can be used to illustrate the results of the coin flipping. The same results can be reported as percentages. In this activity, students will create a set of data and report it both as fractions and as percents.

Data Analysis: Level 4: Reporting Survey Results. In this activity, students will be looking at pictographs of survey information and reporting the results of the surveys as fractions and percents. The last three problems invite students to make their own surveys and report the results.

Data Analysis: Level 5: Word Problems. In this activity, students will be reading word problems and solving the problems by using fractions, decimals, and percentages.

(16) Underlying processes and mathematical tools. The student communicates about Grade 3 mathematics using informal language. The student is expected to:

(A) explain and record observations using objects, words, pictures, numbers, and technology

Data Analysis: Level 1 – Graphing and Fractions. Fraction bars can be used to show the results of repeating an event such as flipping a coin. In this activity, students will be asked create data by flipping a coin or spinning a spinner. Then they report the results of the event using fraction bars.

Data Analysis: Level 2: Reporting with Fractions. Fraction bars can be used to show the results of repeating an event such as flipping a coin. In this activity, students will be asked create data by flipping a coin or spinning a spinner. Then they report the results of the event using fraction bars.

Data Analysis: Level 3: Fractions, Decimals, Percentages. Percentage Fraction bars can be used to illustrate the results of the coin flipping. The same results can be reported as percentages. In this activity, students will create a set of data and report it both as fractions and as percents.

Data Analysis: Level 4: Reporting Survey Results. In this activity, students will be looking at pictographs of survey information and reporting the results of the surveys as fractions and percents. The last three problems invite students to make their own surveys and report the results.

Data Analysis: Level 5: Word Problems. In this activity, students will be reading word problems and solving the problems by using fractions, decimals, and percentages.

§111.16. Mathematics, Grade 4.

(b) Knowledge and skills.

(2) Number, operation, and quantitative reasoning. The student describes and compares fractional parts of whole objects or sets of objects. The student is expected to:

(A) generate equivalent fractions using concrete and pictorial models

Adding Fractions: Level 1 – Pictures and Fraction Symbols. In this activity, students will be matching fraction pictures to fraction symbols, thus illustrating a given equation that adds fractions.

Adding Fractions: Level 2 – Common Denominators. In this activity, students will be given two fraction bars with the same denominator. They will add the numerators and show their answer on a third fraction bar.

Adding Fractions: Level 3 – Mixed Denominators. In this activity, students will be adding two fractions with different denominators. They will use fraction bars to help them find the lowest common denominator and then to solve the problem.

Adding Fractions: Level 4 – Word Problems. In this activity, students will be reading word problems and creating fraction bars to show both the problem and its solution.

Adding Fractions: Level 5 – Word Problems and Lowest Common Denominators. In this activity, students will read a series of word problems. The fractions in the word problems will have different denominators. Students will use fraction bars to represent the fractions, convert them to fractions with common denominators, and show their answer.

Subtracting Fractions: Level 1 – Pictures and Fraction Symbols. In this activity, students will be matching fraction pictures to fraction symbols, thus illustrating a given
equation that subtracts fractions. Subtraction problems use halves, thirds, quarters, sixths, and eighths.

Subtracting Fractions: Level 2 – Common Denominators. In this activity, students will be given two fraction bars with the same denominator. They will subtract the numerators and show their answer on a third fraction bar.

Subtracting Fractions: Level 3 – Mixed Denominators. In this activity, students will be subtracting two fractions with different denominators. They will use fraction bars to help them find the lowest common denominator and then to solve the problem.

Subtracting Fractions: Level 4 – Word Problems and Lowest Common Denominators. In this activity, students will be reading word problems with common denominators, creating fraction bars to show the problem, subtracting, and creating a fraction
bar to show the solution to the problem.

Subtracting Fractions: Level 5 – Word Problems, Answer in Lowest Terms . In this activity, students will create fraction bars to show the equation presented in a subtraction word problem. They will then create another fraction bar that shows the answer in lowest terms.

Rounding Fractions: Level 1 – Half or Whole. In this activity, students will be deciding whether they need a whole or a half of a particular food item. This decision involves rounding. In this activity, students will be rounding to the nearest half or whole.

Rounding Fractions: Level 2 – Nearest Half. In this activity, students will be rounding to the nearest half. They will be deciding if a fraction bar is closer to 0, to 1 / 2, or to 1 whole.

Rounding Fractions: Level 3 – Adding a Fraction Bar. In this activity, students create a fraction bar described in the problem. They decide whether the fraction is closer to 0, to 1/2, or 1 and use numbers at the bottom to insert their answer.

Rounding Fractions: Level 4 – Nearest Tenth. In this activity, students round given fractions to the nearest tenth. They can use the tenths fraction bar provided on the page and the comparison bar to check their work. Problems 1–5 involve addition; problems 6–10 involve subtraction.

Rounding Fractions: Level 5 – Word Problems. In this activity, students read word problems that ask them to round given fractions to the nearest appropriate unit. They place fraction bars on the page and use the comparison bar to check their work.

Fractions and Decimals: Level 1 – Fraction Bar and Counting Box. Both fractions and decimals show parts of a whole. In this activity students create fraction bars to represent the filled area of a decimal grid or fill a decimal grid to be equivalent to a fraction bar.

Fractions and Decimals: Level 2 – Fraction Bars and Counting Box. Fractions can also be represented as decimals. In this activity, students move fraction bars to match the
correct decimal equivalent. They can use the Counting Box to check their work.

Fractions and Decimals: Level 3 – Writing Decimal Equivalents. Fractions can also be represented as decimals. In this activity, students

use numbers to write the correct decimal equivalent. They can use the Counting Box to check their work.

Fractions and Decimals: Level 4 – Making Fraction Equivalents. Decimals can be represented as fractions. Students will make the fraction bars that are equivalent to given decimal amounts. They can move the fraction to the Counting Box to check their work.

Fractions and Decimals: Level 5 – Word Problems. Fractions can be represented as decimals. In this activity students will read a problem and create a fraction bar to answer the question. Then they use a Counting Box to find the decimal equivalent.

Data Analysis: Level 1 – Graphing and Fractions. Fraction bars can be used to show the results of repeating an event such as flipping a coin. In this activity, students will be asked create data by flipping a coin or spinning a spinner. Then they report the results of the event using fraction bars.

Data Analysis: Level 2: Reporting with Fractions. Fraction bars can be used to show the results of repeating an event such as flipping a coin. In this activity, students will be asked create data by flipping a coin or spinning a spinner. Then they report the results of the event using fraction bars.

Data Analysis: Level 3: Fractions, Decimals, Percentages. Percentage Fraction bars can be used to illustrate the results of the coin flipping. The same results can be reported as percentages. In this activity, students will create a set of data and report it both as fractions and as percents.

Data Analysis: Level 4: Reporting Survey Results. In this activity, students will be looking at pictographs of survey information and reporting the results of the surveys as fractions and percents. The last three problems invite students to make their own surveys and report the results.

Data Analysis: Level 5: Word Problems. In this activity, students will be reading word problems and solving the problems by using fractions, decimals, and percentages.

(D) relate decimals to fractions that name tenths and hundredths using models

Fractions and Decimals: Level 1 – Fraction Bar and Counting Box. Both fractions and decimals show parts of a whole. In this activity students create fraction bars to represent the filled area of a decimal grid or fill a decimal grid to be equivalent to a fraction bar.

Fractions and Decimals: Level 2 – Fraction Bars and Counting Box. Fractions can also be represented as decimals. In this activity, students move fraction bars to match the correct decimal equivalent. They can use the Counting Box to check their work.

Fractions and Decimals: Level 3 – Writing Decimal Equivalents. Fractions can also be represented as decimals. In this activity, students use numbers to write the correct decimal equivalent. They can use the Counting Box to check their work.

Fractions and Decimals: Level 4 – Making Fraction Equivalents. Decimals can be represented as fractions. Students will make the fraction bars that are equivalent to given decimal amounts. They can move the fraction to the Counting Box to check their work.

Fractions and Decimals: Level 5 – Word Problems. Fractions can be represented as decimals. In this activity students will read a problem and create a fraction bar to answer the question. Then they use a Counting Box to find the decimal equivalent.

Data Analysis: Level 3: Fractions, Decimals, Percentages. Percentage Fraction bars can be used to illustrate the results of the coin flipping. The same results can be reported as
percentages. In this activity, students will create a set of data and report it both as fractions and as percents.

Data Analysis: Level 4: Reporting Survey Results. In this activity, students will be looking at pictographs of survey information and reporting the results of the surveys as fractions and percents. The last three problems invite students to make their own surveys and report the results.

Data Analysis: Level 5: Word Problems. In this activity, students will be reading word problems and solving the problems by using fractions, decimals, and percentages.

(13) Probability and statistics. The student solves problems by collecting, organizing, displaying, and interpreting sets of data. The student is expected to:

(A) list all possible outcomes of a probability experiment such as tossing a coin

Data Analysis: Level 1 – Graphing and Fractions. Fraction bars can be used to show the results of repeating an event such as flipping a coin. In this activity, students will be asked create data by flipping a coin or spinning a spinner. Then they report the results of the event using fraction bars.

Data Analysis: Level 2: Reporting with Fractions. Fraction bars can be used to show the results of repeating an event such as flipping a coin. In this activity, students will be asked create data by flipping a coin or spinning a spinner. Then they report the results of the event using fraction bars.

Data Analysis: Level 3: Fractions, Decimals, Percentages. Percentage Fraction bars can be used to illustrate the results of the coin flipping. The same results can be reported as percentages. In this activity, students will create a set of data and report it both as fractions and as percents.

(14) Underlying processes and mathematical tools. The student applies Grade 4 mathematics to solve problems connected to everyday experiences and activities in and outside of school. The student is expected to:

(D) use tools such as real objects, manipulatives, and technology to solve problems

Adding Fractions: Level 1 – Pictures and Fraction Symbols. In this activity, students will be matching fraction pictures to fraction symbols, thus illustrating a given equation that adds fractions.

Adding Fractions: Level 2 – Common Denominators. In this activity, students will be given two fraction bars with the same denominator. They will add the numerators and show their answer on a third fraction bar.

Adding Fractions: Level 3 – Mixed Denominators. In this activity, students will be adding two fractions with different denominators. They will use fraction bars to help them find the lowest common denominator and then to solve the problem.

Adding Fractions: Level 4 – Word Problems. In this activity, students will be reading word problems and creating fraction bars to show both the problem and its solution.

Adding Fractions: Level 5 – Word Problems and Lowest Common Denominators. In this activity, students will read a series of word problems. The fractions in the word problems will have different denominators. Students will use fraction bars to represent the fractions, convert them to fractions with common denominators, and show their answer.

Subtracting Fractions: Level 1 – Pictures and Fraction Symbols. In this activity, students will be matching fraction pictures to fraction symbols, thus illustrating a given equation that subtracts fractions. Subtraction problems use halves, thirds, quarters, sixths, and eighths.

Subtracting Fractions: Level 2 – Common Denominators. In this activity, students will be given two fraction bars with the same denominator. They will subtract the numerators and show their answer on a third fraction bar.

Subtracting Fractions: Level 3 – Mixed Denominators. In this activity, students will be subtracting two fractions with different denominators. They will use fraction bars to help them find the lowest common denominator and then to solve the problem.

Subtracting Fractions: Level 4 – Word Problems and Lowest Common Denominators. In this activity, students will be reading word problems with common denominators, creating fraction bars to show the problem, subtracting, and creating a fraction bar to show the solution to the problem.

Subtracting Fractions: Level 5 – Word Problems, Answer in Lowest Terms . In this activity, students will create fraction bars to show the equation presented in a subtraction word problem. They will then create another fraction bar that shows the answer in lowest terms.

Rounding Fractions: Level 1 – Half or Whole. In this activity, students will be deciding whether they need a whole or a half of a particular food item. This decision involves rounding. In this activity, students will be rounding to the nearest half or whole.

Rounding Fractions: Level 2 – Nearest Half. In this activity, students will be rounding to the nearest half. They will be deciding if a fraction bar is closer to 0, to 1 / 2, or to 1 whole.

Rounding Fractions: Level 3 – Adding a Fraction Bar. In this activity, students create a fraction bar described in the problem. They decide whether the fraction is closer to 0, to 1/2, or 1 and use numbers at the bottom to insert their answer.

Rounding Fractions: Level 4 – Nearest Tenth. In this activity, students round given fractions to the nearest tenth. They can use the tenths fraction bar provided on the page and the comparison bar to check their work. Problems 1–5 involve addition; problems 6–10 involve subtraction.

Rounding Fractions: Level 5 – Word Problems. In this activity, students read word problems that ask them to round given fractions to the nearest appropriate unit. They place fraction bars on the page and use the comparison bar to check their work.

Fractions and Decimals: Level 1 – Fraction Bar and Counting Box. Both fractions and decimals show parts of a whole. In this activity students create fraction bars to represent the filled area of a decimal grid or fill a decimal grid to be equivalent to a fraction bar.

Fractions and Decimals: Level 2 – Fraction Bars and Counting Box. Fractions can also be represented as decimals. In this activity, students move fraction bars to match the
correct decimal equivalent. They can use the Counting Box to check their work.

Fractions and Decimals: Level 3 – Writing Decimal Equivalents. Fractions can also be represented as decimals. In this activity, students use numbers to write the correct decimal equivalent. They can use the Counting Box to check their work.

Fractions and Decimals: Level 4 – Making Fraction Equivalents. Decimals can be represented as fractions. Students will make the fraction bars that are equivalent to given decimal amounts. They can move the fraction to the Counting Box to check their work.

Fractions and Decimals: Level 5 – Word Problems. Fractions can be represented as decimals. In this activity students will read a problem

and create a fraction bar to answer the question. Then they use a Counting Box to find the decimal equivalent.

Data Analysis: Level 1 – Graphing and Fractions. Fraction bars can be used to show the results of repeating an event such as flipping a coin. In this activity, students will be asked create data by flipping a coin or spinning a spinner. Then they report the results of the event using fraction bars.

Data Analysis: Level 2: Reporting with Fractions. Fraction bars can be used to show the results of repeating an event such as flipping a coin. In this activity, students will be asked create data by flipping a coin or spinning a spinner. Then they report the results of the event using fraction bars.

Data Analysis: Level 3: Fractions, Decimals, Percentages. Percentage Fraction bars can be used to illustrate the results of the coin flipping. The same results can be reported as percentages. In this activity, students will create a set of data and report it both as fractions and as percents.

Data Analysis: Level 4: Reporting Survey Results. In this activity, students will be looking at pictographs of survey information and reporting the results of the surveys as fractions and percents. The last three problems invite students to make their own surveys and report the results.

Data Analysis: Level 5: Word Problems. In this activity, students will be reading word problems and solving the problems by using fractions, decimals, and percentages.

(15) Underlying processes and mathematical tools. The student communicates about Grade 4 mathematics using informal language. The student is expected to:

(A) explain and record observations using objects, words, pictures, numbers, and technology

Data Analysis: Level 1 – Graphing and Fractions. Fraction bars can be used to show the results of repeating an event such as flipping a coin. In this activity, students will be asked create data by flipping a coin or spinning a spinner. Then they report the results of the event using fraction bars.

Data Analysis: Level 2: Reporting with Fractions. Fraction bars can be used to show the results of repeating an event such as flipping a coin. In this activity, students will be asked create data by flipping a coin or spinning a spinner. Then they report the results of the event using fraction bars.

Data Analysis: Level 3: Fractions, Decimals, Percentages. Percentage Fraction bars can be used to illustrate the results of the coin flipping. The same results can be reported as percentages. In this activity, students will create a set of data and report it both as fractions and as percents.

Data Analysis: Level 4: Reporting Survey Results. In this activity, students will be looking at pictographs of survey information and reporting the results of the surveys as fractions and percents. The last three problems invite students to make their own surveys and report the results.

Data Analysis: Level 5: Word Problems. In this activity, students will be reading word problems and solving the problems by using fractions, decimals, and percentages.