

Unit 11 Reveal Grade 5

Content Area: **Math**
 Course(s): **Math**
 Time Period: **May**
 Length: **2 weeks**
 Status: **Published**

Unit overview

UNIT 11 PLANNER Divide Fractions

PACING: 10 days

LESSON	MATH OBJECTIVE	LANGUAGE OBJECTIVE	SOCIAL AND EMOTIONAL LEARNING OBJECTIVE	LESSON	KEY VOCABULARY
Unit Opener <i>Number Strings</i> Students use patterns to divide with fractions.					
11-1	Relate Fractions to Division Students represent the quotient to a division equation as a fraction or mixed number.	Students talk about relating fractions to division with the gerund using.	Students discuss and practice positive strategies for managing emotional reactions to stressful situations.	11-1	Math Terms denominator dividend divisor numerator quotient
11-2	Solve Problems Involving Division Students determine whether a quotient should be written with a remainder or as a mixed number.	Students discuss whether a quotient should be written with a remainder or as a mixed number using <i>apply</i> .	Students exercise creativity by solving a problem using more than one approach.	11-2	mixed number quotient remainder
11-3	Represent Division of Whole Numbers by Unit Fractions Students use representations to divide whole numbers by unit fractions.	Students talk about using representations to divide whole numbers by unit fractions using <i>can</i> and <i>should</i> .	Students collaborate with peers to solve a mathematical problem.	11-3	division fraction model unit fraction
11-4	Divide Whole Numbers by Unit Fractions Students use the meaning of multiplication as equal groups to divide whole numbers by unit fractions.	Students discuss if a calculated quotient is correct using a related multiplication equation using <i>should</i> , <i>might</i> , and <i>could</i> .	Students identify and use mathematical tools to organize work.	11-4	dividend division divisor unit fraction
11-5	Represent Division of Unit Fractions by Non-Zero Whole Numbers Students use representations to divide unit fractions by non-zero whole numbers.	Students explain how to use representations to divide unit fractions by non-zero whole numbers using <i>similar</i> and <i>related</i> .	Students determine the representations and analyses necessary to make informed decisions when engaging in mathematical practices.	11-5	division fraction model unit fraction
11-6	Divide Unit Fractions by Non-Zero Whole Numbers Students extend their understanding that dividing by a whole is the same as multiplying by a unit fraction to divide unit fractions by whole numbers.	Students explain if a calculated quotient is correct using <i>different</i> and <i>related</i> .	Students demonstrate self-awareness of personal strengths and areas of challenge in mathematics.	11-6	dividend division divisor unit fraction
Math Probe <i>Which Expressions Represent the Situation?</i> Students choose expressions that can be used to solve problems involving division and fractions.					
11-7	Solve Problems Involving Fractions Students solve word problems involving division of fractions using strategies such as using fraction models.	Students discuss solving word problems involving division of fractions using different strategies, using <i>another way</i> .	Students advocate for their mathematical problem solving and adjust their understanding based on constructive feedback.	11-7	equation unknown variable
Unit Review					
Fluency Practice					
Unit Assessment					
Performance Task					

See Above.

Essential Questions

See Above.

Instructional Strategies and Learning Activities

LESSON 11-1
Relate Fractions to Division

Learning Targets

- I can represent the quotient of a division equation as a fraction or mixed number.
- I can explain why the quotient of a division equation can always be expressed as a fraction.
- I can explain why division of whole numbers can be written as a multiplication expression.

Standards • Major • Supporting • Additional

Content

◇ **5.NF.B.3** Interpret a fraction as division of the numerator by the denominator ($\frac{a}{b} = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem.

Math Practices and Processes

MPP Model with mathematics.

Focus

Content Objectives	Language Objectives	SEL Objective
<ul style="list-style-type: none">• Students represent the quotient to a division equation as a fraction or mixed number.• Students explain why the quotient of a division equation can be expressed as a fraction.• Students explain why division of whole numbers can be written as a multiplication expression.	<ul style="list-style-type: none">• Students discuss relating fractions to division with the ground using.• To support sense-making, ELs participate in MLR7: Compare and Connect.	<ul style="list-style-type: none">• Students discuss and practice positive strategies for managing emotional reactions to stressful situations.

Coherence

Previous	Now	Next
<ul style="list-style-type: none">• Students interpreted a multiplication expression as a comparison (Grade 4).• Students divided decimals to hundredths (Unit 8).	<ul style="list-style-type: none">• Students extend their understanding of fractions to understand fractions as division.	<ul style="list-style-type: none">• Students solve word problems and determine how the quotient should be written (Unit 11).• Students understand the concept of a unit rate (Grade 6).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
<ul style="list-style-type: none">• Students build on their understanding of fractions as another way to write a division expression.	<ul style="list-style-type: none">• Students build proficiency with division of whole numbers that result by dividing the numerator by the denominator. <p><i>Procedural Skill & Fluency is not a specific element of rigor for this standard.</i></p>	<ul style="list-style-type: none">• Students solve problems involving division of whole numbers that result in a quotient that is a fraction or mixed number.

LESSON 11-2

Solve Problems Involving Division

Learning Target

- I can determine whether a quotient should be written with a remainder or as a mixed number.

Standards

Major Supporting Additional

Content

- ◊ **5.NF.B.3** Interpret a fraction as division of the numerator by the denominator ($\frac{a}{b} = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem.

Math Practices and Processes

- MPP** Make sense of problems and persevere in solving them.

Focus

Content Objective

- Students determine whether a quotient should be written with a remainder or as a mixed number.

Language Objectives

- Students discuss whether a quotient should be written with a remainder or as a mixed number using the verb *apply*.
- To support optimizing output, ELs participate in MLRT: Stronger and Clearer Each Time.

SEL Objective

- Students exercise creativity by solving a problem using more than one approach.

Coherence

Previous

- Students found whole-number quotients and remainders with up to four-digit dividends and one-digit divisors (Grade 4).
- Students extended their understanding of fractions to understand fractions as division (Unit 1).

Now

- Students solve word problems and determine if the quotient should be written with a remainder or as a mixed number based on the context of the problem.

Next

- Students represent division of a whole number by unit fractions (Unit 1).
- Students understand the concept of a unit rate associated with a ratio and use rate language in the context of a ratio relationship (Grade 6).

Rigor

Conceptual Understanding

- Students build on their understanding of division and mixed numbers by determining how they should write a quotient for division problems.

Procedural Skill & Fluency

- Students build their fluency with division as they practice strategies and skills for dividing whole numbers.

Application

- Students apply their understanding of division to solve problems with real-world contexts.

Application is not a specific element of rigor for this standard.

LESSON 11-3

Represent Division of Whole Numbers by Unit Fractions

Learning Target

- I can use a representation to divide whole numbers by unit fractions.

Standards

Major Supporting Additional

Content

◊ **5.NF.B.7** Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.

◊ **5.NF.B.7.b** Interpret division of a whole number by a unit fraction, and compute such quotients.

For example, create a story context for $4 \div \frac{1}{5}$, and use a visual fraction model to show the quotient.

Use the relationship between multiplication and division to explain that $4 \div \frac{1}{5} = 20$ because $20 \times \frac{1}{5} = 4$.

Math Practices and Processes

MPP Model with mathematics.

Focus

Content Objective

- Students use representations to divide whole numbers by unit fractions.

Language Objectives

- Students talk about using representation to divide whole numbers by unit fractions using *can* and *should*.
- To support sense-making, ELs participate in MLR2: Collect and Display.

SEL Objective

- Students collaborate with peers to solve a mathematical problem.

Coherence

Previous

- Students multiplied fractions by whole numbers (Grade 4).
- Students solved word problems and determined how to write the quotient (Unit 1).

Now

- Students represent division of whole numbers by unit fractions.

Next

- Students use the relationship of multiplication and division to divide whole numbers by unit fractions (Unit 1).
- Students divide fractions by fractions and understand rate and ratio concepts (Grade 6).

Rigor

Conceptual Understanding

- Students build their understanding of division of whole numbers by unit fractions as they relate the concept to different representations.

Procedural Skill & Fluency

- Students build their fluency with multiplication and division as they develop strategies and skills for dividing whole numbers by unit fractions.

Application

- Students apply their understanding of division to solve problems with real-world contexts.

Application is not a specific element of rigor for this standard.

LESSON 11-4

Divide Whole Numbers by Unit Fractions

Learning Targets

- I can use the meaning of multiplication as equal groups to divide whole numbers by unit fractions.
- I can check if a calculated quotient is correct using a related multiplication equation.

Standards

◆ Major ▲ Supporting ● Additional

Content

◆ **5.NF.B.7** Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.

◆ **5.NF.B.7.b** Interpret division of a whole number by a unit fraction, and compute such quotients. For example, create a story context for $4 \div \frac{1}{5}$, and use a visual fraction model to show the quotient.

Use the relationship between multiplication and division to explain that $4 \div \frac{1}{5} = 20$ because

$$20 \times \frac{1}{5} = 4.$$

Math Practices and Processes

MPP Attend to precision.

Focus

Content Objectives

- Students use the meaning of multiplication as equal groups to divide whole numbers by unit fractions.
- Students check the quotient using a related multiplication equation.

Language Objectives

- Students discuss if a calculated quotient is correct using a related multiplication equation using *should*, *might*, and *could*.
- To support maximizing cognitive and linguistic meta-awareness, ELs participate in MLRS: Discussion Supports.

SEL Objective

- Students identify and use mathematical tools to organize work.

Coherence

Previous

- Students multiplied a fraction by a whole number (Grade 4).
- Students represented division of a whole number by unit fractions (Unit 11).

Now

- Students use the relationship between multiplication and division to divide whole numbers by unit fractions.

Next

- Students represent division of unit fractions by non-zero whole numbers (Unit 11).
- Students divide fractions by fractions (Grade 6).

Rigor

Conceptual Understanding

- Students build on their understanding of the relationship between multiplication and division as they justify the quotient of a whole number divided by a unit fraction.

Procedural Skill & Fluency

- Students build proficiency by solving problems involving a whole number divided by a unit fraction using pictures, words, and numbers.

Application

- Students apply their understanding of dividing a whole number by a unit fraction in solving problems in real-life contexts.
- Application is not a specific element of rigor for this standard.*

LESSON 11-5

Represent Division of Unit Fractions by Non-Zero Whole Numbers

Learning Target

- I can use a representation to divide unit fractions by non-zero whole numbers.

Standards

Major Supporting Additional

Content

◊ **5.NF.B.7** Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.

◊ **5.NF.B.7.a** Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for $\frac{1}{3} \div 4$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $\frac{1}{3} \div 4 = \frac{1}{12}$ because $\frac{1}{12} \times 4 = \frac{1}{3}$.

Math Practices and Processes

MPP Reason abstractly and quantitatively.

Focus

Content Objective	Language Objectives	SEL Objective
<ul style="list-style-type: none"> Students use representations to divide unit fractions by non-zero whole numbers. 	<ul style="list-style-type: none"> Students explain how to use representations to divide unit fractions by non-zero whole numbers using similar and related. To support cultivating conversation, ELs participate in MLK3: Critique, Correct, and Clarify. 	<ul style="list-style-type: none"> Students determine the representations and analyses necessary to make informed decisions when engaging in mathematical practices.

Coherence

Previous	Now	Next
<ul style="list-style-type: none"> Students multiplied a fraction by a whole number (Grade 4). Students used the relationship between multiplication and division to divide whole numbers by unit fractions (Unit 11). 	<ul style="list-style-type: none"> Students represent division of unit fractions by non-zero whole numbers. 	<ul style="list-style-type: none"> Students use the relationship between multiplication and division to divide unit fractions by whole numbers (Unit 11). Students divide fractions by fractions (Grade 6).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
<ul style="list-style-type: none"> Students extend their understanding of division with fractions by representing division of unit fractions by non-zero whole numbers. 	<ul style="list-style-type: none"> Students evaluate representations used to divide fractions by non-zero whole numbers. 	<ul style="list-style-type: none"> Students apply their understanding of dividing fractions by non-zero whole numbers to solve problems. <p><i>Application is not a specific element of rigor for this standard.</i></p>

LESSON 11-6

Divide Unit Fractions by Non-Zero Whole Numbers

Learning Targets

- I can divide unit fractions by non zero whole numbers.
- I can check if a calculated quotient is correct using a related multiplication equation.

Standards

Major Supporting Additional

Content

- ◊ **5.NF.B.7** Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.
- ◊ **5.NF.B.7.a** Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for $\frac{1}{3} \div 4$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $\frac{1}{3} \div 4 = \frac{1}{12}$ because $\frac{1}{12} \times 4 = \frac{1}{3}$.

Math Practices and Processes

MPP Look for and make use of structure.

Focus

Content Objectives

- Students extend their understanding that dividing by a whole is the same as multiplying by a unit fraction to divide unit fractions by whole numbers.
- Students check if a calculated quotient is correct using a related multiplication equation.

Language Objectives

- Students explain if a calculated quotient is correct using different and related.
- To support optimizing output, ELS participate in MLRT: Stronger and Clearer Each Time.

SEL Objective

- Students demonstrate self-awareness of personal strengths and areas of challenge in mathematics.

Coherence

Previous

- Students multiplied a fraction by a whole number (Grade 4).
- Students represented division of unit fractions by non zero whole numbers (Unit 11).

Now

- Students use the relationship between multiplication and division to divide unit fractions by non zero whole numbers.

Next

- Students use strategies to solve division word problems involving fractions and whole numbers (Unit 11).
- Students divide fractions by fractions (Grade 6).

Rigor

Conceptual Understanding

- Students build their understanding of dividing unit fractions by non zero whole numbers by using multiplication to justify their solutions.

Procedural Skill & Fluency

- Students interpret multiplication equations to solve related division equations.

Application

- Students apply their understanding of division of unit fractions by non zero whole numbers to solve problems. *Application is not a specific element of rigor for this standard.*

LESSON 11-7

Solve Problems Involving Fractions

Learning Target

- I can solve word problems involving division of fractions.

Standards ◆ Major ▲ Supporting ■ Additional

Content

- 5.NF.B.7** Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.
- 5.NF.B.7.c** Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. For example, how much chocolate will each person get if 3 people share $\frac{1}{2}$ lb of chocolate equally? How many $\frac{1}{3}$ -cup servings are in 2 cups of raisins?

Math Practices and Processes

- MPP** Make sense of problems and persevere in solving them.

Focus

Content Objective

- Students solve word problems involving division of fractions using strategies such as using fraction models or the relationship between multiplication and division.

Language Objectives

- Students discuss solving word problems involving division of fractions using *another way*.
- To support maximizing linguistic and cognitive meta-awareness, ELs participate in MLRS: Co-Craft Questions and Problems.

SEL Objective

- Students advocate for their mathematical problem solving and adjust their understanding based on constructive feedback.

Coherence

Previous

- Students applied previous understandings of multiplication to multiply a fraction by a whole number (Grade 4).
- Students used the relationship between multiplication and division to divide unit fractions by whole numbers (Unit 11).

Now

- Students choose and use strategies to solve division word problems that involve fractions and whole numbers.

Next

- Students convert measurement units and represent data (Unit 12).
- Students interpret and compute quotients of fractions and solve word problems involving division of fractions by fractions (Grade 6).

Rigor

Conceptual Understanding

- Students extend their understanding of operations with fractions by solving word problems.

Procedural Skill & Fluency

- Students build fluency in interpreting word problems and finding the solutions using operations involving fractions and whole numbers.

Application

- Students apply their understanding of operations with fractions and whole numbers to solve problems with real-world contexts.

Integration of Career Readiness, Life Literacies and Key Skills

PFL.9.1.2. FI.1	Differentiate the various forms of money and how they are used (e.g., coins, bills, checks, debit and credit cards).
PFL.9.1.2.PB.2	Explain why an individual would choose to save money.
WRK.9.2.5.CAP.1	Evaluate personal likes and dislikes and identify careers that might be suited to personal likes.
WRK.9.2.5.CAP.2	Identify how you might like to earn an income.
WRK.9.2.5.CAP.3	Identify qualifications needed to pursue traditional and non-traditional careers and

	occupations.
WRK.9.2.5.CAP.4	Explain the reasons why some jobs and careers require specific training, skills, and certification (e.g., life guards, child care, medicine, education) and examples of these requirements.
TECH.9.4.8.CI.1	Assess data gathered on varying perspectives on causes of climate change (e.g., cross-cultural, gender-specific, generational), and determine how the data can best be used to design multiple potential solutions (e.g., RI.7.9, 6.SP.B.5, 7.1.NH.IPERS.6, 8.2.8.ETW.4).
TECH.9.4.8.CI.4	Explore the role of creativity and innovation in career pathways and industries.
TECH.9.4.8.CT.2	Develop multiple solutions to a problem and evaluate short- and long-term effects to determine the most plausible option (e.g., MS-ETS1-4, 6.1.8.CivicsDP.1).
TECH.9.4.8.CT.3	Compare past problem-solving solutions to local, national, or global issues and analyze the factors that led to a positive or negative outcome.
TECH.9.4.8.DC.2	Provide appropriate citation and attribution elements when creating media products (e.g., W.6.8).
TECH.9.4.8.DC.4	Explain how information shared digitally is public and can be searched, copied, and potentially seen by public audiences.
TECH.9.4.8.DC.5	Manage digital identity and practice positive online behavior to avoid inappropriate forms of self-disclosure.
TECH.9.4.8.DC.8	Explain how communities use data and technology to develop measures to respond to effects of climate change (e.g., smart cities).
TECH.9.4.8.TL.1	Construct a spreadsheet in order to analyze multiple data sets, identify relationships, and facilitate data-based decision-making.
TECH.9.4.8.TL.2	Gather data and digitally represent information to communicate a real-world problem (e.g., MS-ESS3-4, 6.1.8.EconET.1, 6.1.8.CivicsPR.4).
TECH.9.4.8.TL.3	Select appropriate tools to organize and present information digitally.
TECH.9.4.8.TL.5	Compare the process and effectiveness of synchronous collaboration and asynchronous collaboration.
TECH.9.4.8.TL.6	Collaborate to develop and publish work that provides perspectives on a real-world problem.
TECH.9.4.8.GCA.1	Model how to navigate cultural differences with sensitivity and respect (e.g., 1.5.8.C1a).
TECH.9.4.8.GCA.2	Demonstrate openness to diverse ideas and perspectives through active discussions to achieve a group goal.
TECH.9.4.8.IML.2	Identify specific examples of distortion, exaggeration, or misrepresentation of information.
TECH.9.4.8.IML.3	Create a digital visualization that effectively communicates a data set using formatting techniques such as form, position, size, color, movement, and spatial grouping (e.g., 6.SP.B.4, 7.SP.B.8b).
TECH.9.4.8.IML.4	Ask insightful questions to organize different types of data and create meaningful visualizations.
TECH.9.4.8.IML.5	Analyze and interpret local or public data sets to summarize and effectively communicate the data.
TECH.9.4.8.IML.7	Use information from a variety of sources, contexts, disciplines, and cultures for a specific purpose (e.g., 1.2.8.C2a, 1.4.8.CR2a, 2.1.8.CHSS/IV.8.AI.1, W.5.8, 6.1.8.GeoSV.3.a, 6.1.8.CivicsDP.4.b, 7.1.NH. IPRET.8).
TECH.9.4.8.IML.12	Use relevant tools to produce, publish, and deliver information supported with evidence for an authentic audience.

Technology and Design Thinking

CS.3-5.8.1.5.CS.3	Identify potential solutions for simple hardware and software problems using common troubleshooting strategies.
CS.3-5.8.1.5.DA.1	Collect, organize, and display data in order to highlight relationships or support a claim.
CS.3-5.8.1.5.DA.3	Organize and present collected data visually to communicate insights gained from different views of the data.
CS.3-5.8.1.5.DA.4	Organize and present climate change data visually to highlight relationships or support a claim. Data can be organized, displayed, and presented to highlight relationships.

Interdisciplinary Connections

LA.L.5.1	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
LA.L.5.2	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
LA.W.5.4	Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
LA.RI.5.1	Quote accurately from a text and make relevant connections when explaining what the text says explicitly and when drawing inferences from the text.
LA.RI.5.2	Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.
LA.RI.5.3	Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.
LA.RI.5.4	Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.
LA.RI.5.5	Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts.
LA.RI.5.6	Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.
LA.RI.5.7	Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.
LA.RI.5.8	Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).
LA.RI.5.9	Integrate and reflect on (e.g., practical knowledge, historical/cultural context, and background knowledge) information from several texts on the same topic in order to write or speak about the subject knowledgeably.
LA.RI.5.10	By the end of year, read and comprehend literary nonfiction at grade level text-complexity or above, with scaffolding as needed.
LA.SL.5.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.

Differentiation

- Understand that gifted students, just like all students, come to school to learn and be challenged.
- Pre-assess your students. Find out their areas of strength as well as those areas you may need to address before students move on.
- Consider grouping gifted students together for at least part of the school day.
- Plan for differentiation. Consider pre-assessments, extension activities, and compacting the curriculum.
- Use phrases like "You've shown you don't need more practice" or "You need more practice" instead of words like "qualify" or "eligible" when referring to extension work.
- Encourage high-ability students to take on challenges. Because they're often used to getting good grades, gifted students may be risk averse.
- **Definitions of Differentiation Components:**
 - Content – the specific information that is to be taught in the lesson/unit/course of instruction.
 - Process – how the student will acquire the content information.
 - Product – how the student will demonstrate understanding of the content.
 - Learning Environment – the environment where learning is taking place including physical location and/or student grouping

Differentiation occurring in this unit:

Use Differentiation guide in Teacher's manual for each unit

Modifications and Accommodations

Refer to QSAC EXCEL SMALL SPED ACCOMMODATIONS spreadsheet in this discipline.

Modifications and Accommodations used in this unit:

Benchmark Assessments

Benchmark Assessments are given periodically (e.g., at the end of every quarter or as frequently as once per month) throughout a school year to establish baseline achievement data and measure progress toward a standard or set of academic standards and goals.

Schoolwide Benchmark assessments:

Aimsweb benchmarks 3X a year

Linkit Benchmarks 3X a year

DRA

Additional Benchmarks used in this unit:

End of Unit assessments

Formative Assessments

Assessment allows both instructor and student to monitor progress towards achieving learning objectives, and can be approached in a variety of ways. **Formative assessment** refers to tools that identify misconceptions, struggles, and learning gaps along the way and assess how to close those gaps. It includes effective tools for helping to shape learning, and can even bolster students' abilities to take ownership of their learning when they understand that the goal is to improve learning, not apply final marks (Trumbull and Lash, 2013). It can include students assessing themselves, peers, or even the instructor, through writing, quizzes, conversation, and more. In short, formative assessment occurs throughout a class or course, and seeks to improve student achievement of learning objectives through approaches that can support specific student needs (Theal and Franklin, 2010, p. 151).

Formative Assessments used in this unit:

Teacher Observations

Checklists

Questions and Discussions

Quizzes

Summative Assessments

Summative assessments evaluate student learning, knowledge, proficiency, or success at the conclusion of an instructional period, like a unit, course, or program. Summative assessments are almost always formally graded and often heavily weighted (though they do not need to be). Summative assessment can be used to great effect in conjunction and alignment with formative assessment, and instructors can consider a variety of ways to combine these approaches.

Summative assessments for this unit:

End of Unit Assessments

Instructional Materials

See Above

Standards

MATH.5.NF.B.3	Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem.
MATH.5.NF.B.7	Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.
MATH.5.NF.B.7.a	Interpret division of a unit fraction by a non-zero whole number, and compute such quotients.
MATH.5.NF.B.7.b	Interpret division of a whole number by a unit fraction, and compute such quotients.
MATH.5.NF.B.7.c	Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem.