# **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

LESS	ON	MATH OBJECTIVE	LANGUAGE OBJECTIVE	SOCIAL AND EMOTIONAL LEARNING OBJECTIVE	LESSON	KEY VOCABULA
Unit Opener Indited Number Strings 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.	114	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 con and should.	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 should, might, and could.	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 similar and related.	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 different and related.	Students demonstrate self-awareness of personal strengths and areas of challenge in mathematics.	11-6	dividend division divisor unit fraction
Math	Probe Which Expressions Repre	esent the Situation? Students choose	expressions that can be used to solve pro	blems 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 another way.	Students advocate for their mathematical problem solving and adjust their understanding based on constructive feedback.	11-7	equation unknown variable
Fluer	Review ncy Practice					
	Assessment ormance Task					

### **Essential Questions**

See Above.

#### **Instructional Strategies and Learning Activities**

# 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 $\left(\frac{a}{b} = a \div b\right)$ . 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.

#### Focus

#### Content Objectives

 Students represent the quotient to a division equation as a fraction or mixed number.

Math Practices and Processes MPP Model with mathematics.

- 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.

#### Language Objectives

- Students discuss relating fractions to division with the gerund using.
- To support sense-making, ELs participate in MLR7: Compare and Connect.

#### SEL Objective

 Students discuss and practice positive strategies for managing emotional reactions to stressful situations.

#### Coherence

#### Previou

- Students interpreted a multiplication expression as a comparison (Grade 4).
- Students divided decimals to hundredths (Unit 8).

#### Nov

 Students extend their understanding of fractions to understand fractions as division.

#### Next

- 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

 Students build on their understanding of fractions as another way to write a division expression.

#### Procedural Skill & Fluency

 Students build proficiency with division of whole numbers that result by dividing the numerator by the denominator.

Procedural Skill & Fluency is not a specific element of rigar for this standard.

#### Application

 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 A Supporting • Additional

#### Content

 $\diamond$  5.NF.B.3 Interpret a fraction as division of the numerator by the denominator  $\left(\frac{a}{b} = \sigma + b\right)$ . Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.q., 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 11).

#### Nov

 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 numbers by unit fractions (Unit 1f).
- 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

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

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#### Represent Division of Whole Numbers by Unit Fractions

#### **Learning Target**

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

#### Standards • Major A 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.

 $\circ$  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  $4 \pm \frac{1}{5}$ , and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that  $4 \pm \frac{1}{5} = 20$  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 con 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 11).

#### Now

 Students represent division of whole numbers by unit fractions.

#### Nex

- Students use the relationship of multiplication and division to divide whole numbers by unit fractions (Unit 11).
- 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.

137A

#### **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 A Supporting • Additional

#### Content

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

 $\diamondsuit$  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  $4+\frac{1}{5}$ , 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 MLRB: 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 numbers 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.

141A

#### 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.
- $\diamondsuit$  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  $\frac{1}{3} + 4$ , and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that  $\frac{1}{3} + 4 = \frac{1}{12}$  because  $\frac{1}{12} \times 4 = \frac{1}{3}$ .

#### Math Practices and Processes

MPP Reason abstractly and quantitatively.

#### Focus

#### Content Objective

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

#### Language Objectives

- 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 MLR3: Critique, Correct, and Clarify.

#### SEL Objective

 Students determine the representations and analyses necessary to make informed decisions when engaging in mathematical practices.

#### Coherence

#### Previous

- 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).

#### Now

 Students represent division of unit fractions by non-zero whole numbers.

#### Nex

- 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

 Students extend their understanding of division with fractions by representing division of unit fractions by non-zero whole numbers.

#### Procedural Skill & Fluency

 Students evaluate representations used to divide fractions by non-zero whole numbers.

#### Application

 Students apply their understanding of dividing fractions by non-zero whole numbers to solve problems.

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

145A

# 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 A Supporting • Additional

#### Conten

- 5.NF.B.7 Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.
- $\bigcirc$  **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  $\frac{1}{3} \pm 4$ , and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that  $\frac{1}{3} \pm 4 = \frac{1}{12}$  because  $\frac{1}{12} \times 4 = \frac{1}{2}$ .

#### 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 mumbers to solve problems.

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

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#### 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. \$\triangle\$ 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 Language Objectives SEL Objective · Students solve word problems Students discuss solving word · Students advocate for their involving division of fractions problems involving division of mathematical problem solving and adjust their understanding fractions using another way. using strategies such as using fraction models or the based on constructive feedback. . To support maximizing linguistic relationship between and cognitive meta-awareness. multiplication and division. ELs participate in MLR5: Co-Craft Questions and Problems Coherence Next · Students applied previous . Students choose and use . Students convert measurement understandings of multiplication strategies to solve division word units and represent data (Unit problems that involve fractions number (Grade 4). and whole numbers. Students interpret and compute · Students used the relationship quotients of fractions and solve between multiplication and word problems involving division to divide unit fractions division of fractions by fractions by whole numbers (Unit 11). (Grade 6). Rigor Conceptual Understanding Procedural Skill & Fluency . Students extend their · Students build fluency in · Students apply their understanding of operations with fractions and whole understanding of operations with interpreting word problems and fractions by solving word finding the solutions using problems. operations involving fractions and whole numbers. numbers to solve problems with real-world contexts.

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Unit 11 - Divide Fractions

## **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., crosscultural, 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. Explain how communities use data and technology to develop measures to respond to TECH.9.4.8.DC.8 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. TFCH.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. Model how to navigate cultural differences with sensitivity and respect (e.g., 1.5.8.C1a). TECH.9.4.8.GCA.1 TECH.9.4.8.GCA.2 Demonstrate openness to diverse ideas and perspectives through active discussions to achieve a group goal. Identify specific examples of distortion, exaggeration, or misrepresentation of TECH.9.4.8.IML.2 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

TECH.9.4.8.IML.12 Use relevant tools to produce, publish, and deliver information supported with evidence for an authentic audience.

6.1.8.CivicsDP.4.b, 7.1.NH. IPRET.8).

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,

# **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.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.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.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.
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.

#### **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.
- o 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 ACCOMMOCATIONS 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:

#### **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.