# Unit 1 Reveal Grade 2

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

## Unit Overview

**UNIT 1 PLANNER**
**Math Is...**

**PACING: 11 days**

| LESSON | | MATH OBJECTIVE | LANGUAGE OBJECTIVE | SOCIAL AND EMOTIONAL LEARNING OBJECTIVE | LESSON | KEY VOCABULARY |
|---|---|---|---|---|---|---|
| Unit Opener | The School Fair | Explore different ways to make 30. | | | | |
| 1-1 | Math Is Mine | Students describe how math is used in their daily lives and in the lives of others. They tell their math story. | Students talk about how they use math while answering *Wh-* questions. | Students describe their feelings and attitudes toward mathematics. | 1-1 | Math Terms<br>hobby<br>story |
| 1-2 | Math Is Exploring and Thinking | Students explore options for understanding a problem and strategies for solving it.<br>Students relate quantities in a problem. | Students talk about different approaches for understanding a problem and strategies for solving it while answering *Wh-* questions and using *another way* as needed and able. | Students recognize emotions that affect their behaviors negatively during math class. | 1-2 | addends<br>quantity |
| 1-3 | Math Is In My World | Students use mathematics to represent real-world situations and problems. | Students explain and show real-world phenomena with mathematical models while answering *Wh-* questions and using *notice* and *can* as needed. | Students show appreciation for the different perspectives of their classmates. | 1-3 | equation |
| 1-4 | Math Is Explaining and Sharing | Students explore ways to construct arguments to support their thinking.<br>Students respond to the ideas and arguments of others. | Students discuss arguments to support their thinking while answering *Wh-* and Yes/No questions and using *thinking* as needed. | Students practice showing respect for classmates as they share ideas and thinking. | 1-4 | argument<br>precise |
| 1-5 | Math Is Finding Patterns | Students explore strategies for uncovering patterns and for using patterns to solve problems. | Students discuss strategies for uncovering patterns and for using patterns to solve problems while answering *Wh-* and Yes/No questions and using the verb *help* and the adjective *helpful* as needed. | Students practice self-control as they learn to take turns when sharing ideas with a partner or in a group. | 1-5 | pattern<br>relationship |
| 1-6 | Math Is Ours | Students discuss and decide on classroom norms of interaction for a productive math learning environment. | Students talk about the skills, behaviors, and mindsets that contribute to a productive learning environment while answering *Wh-* and Yes/No questions and using the words *helpful*, *focused*, and *respectful* as needed. | Students make decisions about classroom norms for working productively with classmates. | 1-6 | pattern<br>quantity |
| Unit Review | | | | | | |
| Fluency Practice | | | | | | |

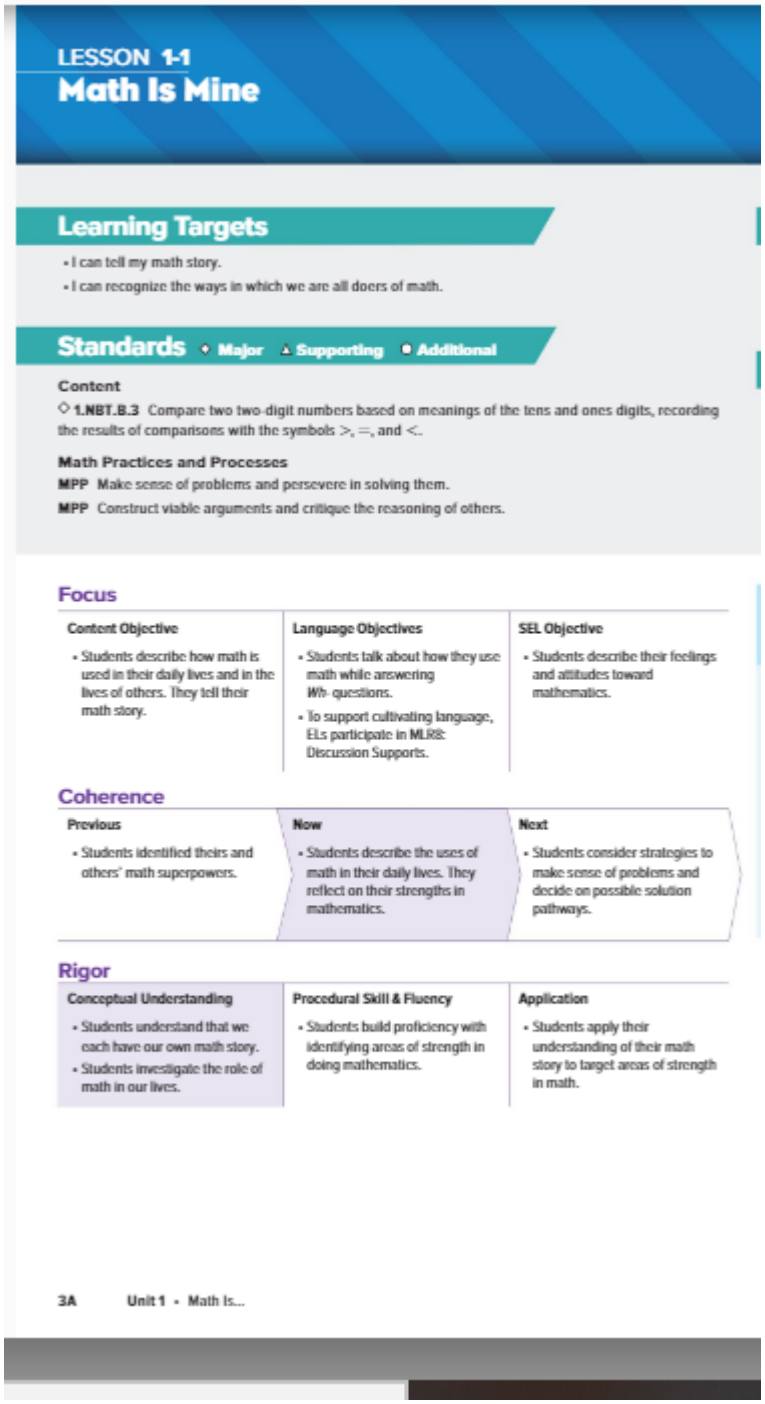
## Enduring Understandings

See Above

## Essential Questions

See Above

## Instructional Strategies and Learning Activities



LESSON 1-1

# Math Is Mine

### Learning Targets

- I can tell my math story.
- I can recognize the ways in which we are all doers of math.

### Standards ◆ Major ▲ Supporting ● Additional

**Content**

◇ **1.NBT.B.3** Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.

**Math Practices and Processes**

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

**MPP** Construct viable arguments and critique the reasoning of others.

### Focus

**Content Objective**

- Students describe how math is used in their daily lives and in the lives of others. They tell their math story.

**Language Objectives**

- Students talk about how they use math while answering *Wh-* questions.
- To support cultivating language, ELs participate in MLR8: Discussion Supports.

**SEL Objective**

- Students describe their feelings and attitudes toward mathematics.

### Coherence

**Previous**

- Students identified theirs and others' math superpowers.

**Now**

- Students describe the uses of math in their daily lives. They reflect on their strengths in mathematics.

**Next**

- Students consider strategies to make sense of problems and decide on possible solution pathways.

### Rigor

**Conceptual Understanding**

- Students understand that we each have our own math story.
- Students investigate the role of math in our lives.

**Procedural Skill & Fluency**

- Students build proficiency with identifying areas of strength in doing mathematics.

**Application**

- Students apply their understanding of their math story to target areas of strength in math.

LESSON 1-2

# Math Is Exploring and Thinking

## Learning Targets

- I can make sense of a problem and explore solution pathways.
- I can think about numbers in different ways.

## Standards ◇ Major △ Supporting ○ Additional

**Content**

◇ **1.OA.A.2** Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

**Math Practices and Processes**

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

**MPP** Reason abstractly and quantitatively.

## Focus

| Content Objectives | Language Objectives | SEL Objective |
|---|---|---|
| • Students explore options for understanding a problem and strategies for solving it.<br>• Students relate quantities in a problem. | • Students talk about different approaches for understanding a problem and strategies for solving it while answering *Wh-* questions and using *another way* as needed and able.<br>• To support optimizing output, ELs participate in MLR7: Compare and Connect. | • Students recognize emotions that affect their behaviors negatively during math class. |

## Coherence

| Previous | Now | Next |
|---|---|---|
| • Students thought about how they and others use math in their lives. They reflected on the mindsets that help them do math. | • Students consider strategies to make sense of problems and decide on possible solution pathways. | • Students explore ways to use mathematics to model real-world situations. |

## Rigor

| Conceptual Understanding | Procedural Skill & Fluency | Application |
|---|---|---|
| • Students demonstrate understanding of the problem solving process, with a focus on making sense of a problem and determining a solution plan. | • Students build proficiency with the problem solving process. | • Students apply their understanding of the problem-solving process as they solve real-world problems. |

LESSON 1-3

# Math Is In My World

## Learning Targets

- I can represent a real-world situation using mathematics.
- I can explain how to use tools to solve a problem.

## Standards ◆ Major ▲ Supporting ● Additional

**Content**

◇ **1.NBT.C.6** Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

**Math Practices and Processes**

**MPP** Model with mathematics.

**MPP** Use appropriate tools strategically.

## Focus

| Content Objective | Language Objectives | SEL Objective |
|---|---|---|
| • Students use mathematics to represent real-world situations and problems. | • Students explain and show real-world phenomena with mathematical models while answering *Wh-* questions and using *notice* and *care* as needed.<br>• To support sense-making, ELs participate in MLR6: Three Reads. | • Students show appreciation for the different perspectives of their classmates. |

## Coherence

| Previous | Now | Next |
|---|---|---|
| • Students discussed ways to make sense of problems and to represent quantities. | • Students explore ways to use mathematics to model real-world situations. | • Students consider elements of a viable mathematical argument to defend their thinking or solution. |

## Rigor

| Conceptual Understanding | Procedural Skill & Fluency | Application |
|---|---|---|
| • Students demonstrate understanding of how real-world situations and problems can be modeled with mathematics. | • Students build proficiency with modeling with mathematics. | • Students apply their understanding of modeling with mathematics to model real-world problems with mathematics. |

LESSON 1-4

# Math Is Explaining and Sharing

## Learning Targets

- I can explain my thinking.
- I can listen to the ideas of my classmates.

## Standards ◆ Major ▲ Supporting ● Additional

**Content**

○ **1.NBT.C.4** Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

**Math Practices and Processes**

**MPP** Construct arguments and critique the reasoning of others.

**MPP** Attend to precision.

## Focus

| Content Objectives | Language Objectives | SEL Objective |
|---|---|---|
| • Students explore ways to construct arguments to support their thinking.<br>• Students respond to the ideas and arguments of others. | • Students discuss arguments to support their thinking while answering *Wh-* and Yes/No questions and using *thinking* as needed.<br>• To support optimizing output, ELs participate in MLR1: Stronger and Clearer Each Time. | • Students practice showing respect for classmates as they share ideas and thinking. |

## Coherence

| Previous | Now | Next |
|---|---|---|
| • Students explored ways that mathematics can represent real-world problems. | • Students explain their thinking about mathematics. They listen to their classmates' thinkings. | • Students explore mathematical patterns. |

## Rigor

| Conceptual Understanding | Procedural Skill & Fluency | Application |
|---|---|---|
| • Students understand that sharing their thinking about the mathematics they are using to solve problems is an important part of doing math. | • Students build proficiency with explaining their thinking about the math they are using. | • Students apply their understanding of the importance of sharing their ideas and their thinking about mathematics as they share their thinking. |

LESSON 1-5

# Math Is Finding Patterns

## Learning Targets

- I can describe and extend a pattern.
- I can use patterns to solve problems.

## Standards ◆ Major ▲ Supporting ● Additional

**Content**

◇ **1.OA.C.6** Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).

**Math Practices and Processes**

**MPP** Look for and make use of structure.

**MPP** Look for and express regularity in repeated reasoning.

## Focus

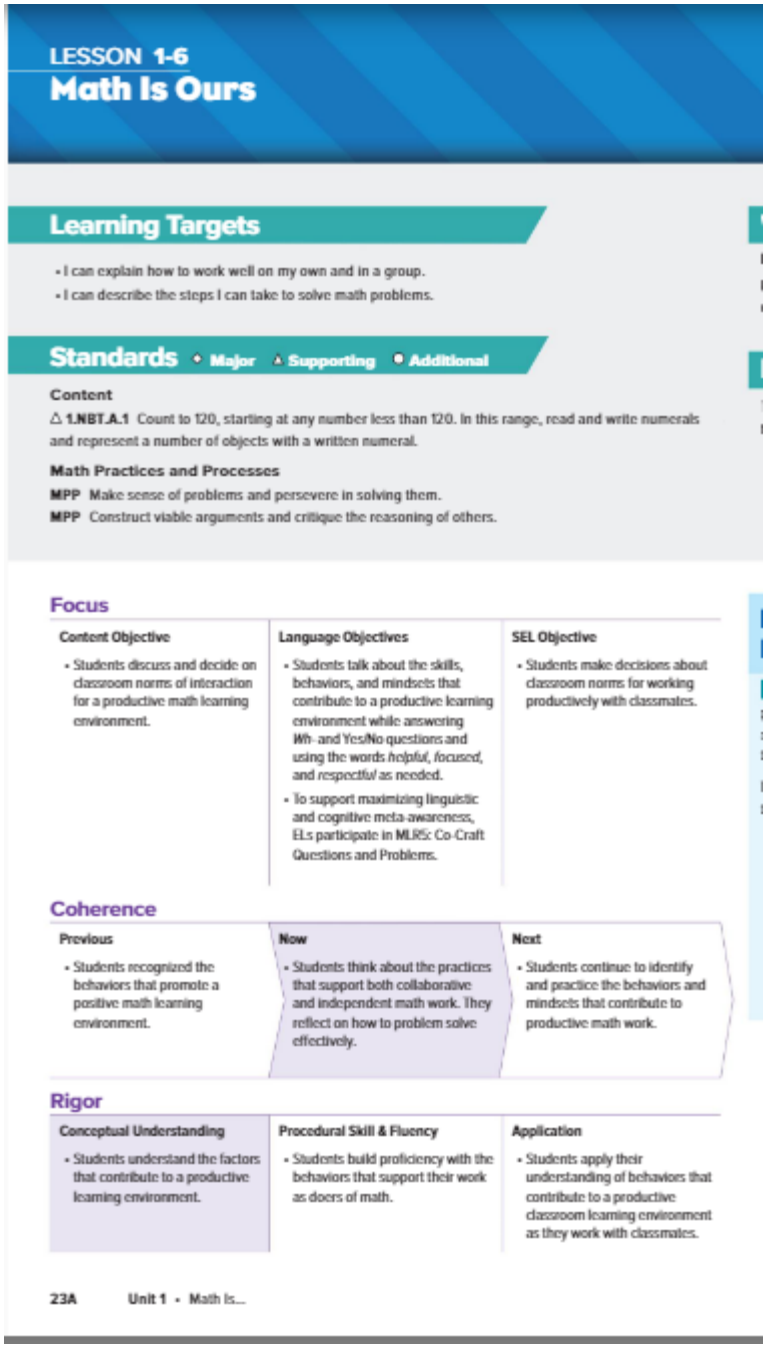
| Content Objective | Language Objectives | SEL Objective |
|---|---|---|
| • Students explore strategies for uncovering patterns and for using patterns to solve problems. | • Students discuss strategies for uncovering patterns and for using patterns to solve problems while answering *Wh-* and Yes/No questions and using the verb *help* and the adjective *helpful* as needed.<br>• To support sense-making, ELs participate in MLR2: Collect and Display. | • Students practice self-control as they learn to take turns when sharing ideas with a partner or in a group. |

## Coherence

| Previous | Now | Next |
|---|---|---|
| • Students explained their thinking about mathematics. They listened to the thinking of their classmates. | • Students describe and extend patterns. | • Students discuss classroom norms for productive learning. |

## Rigor

| Conceptual Understanding | Procedural Skill & Fluency | Application |
|---|---|---|
| • Students understand that patterns are an important part of doing math. | • Students build proficiency with describing and extending patterns. | • Students apply their understanding of patterns to solve problems. |



LESSON 1-6

## Math Is Ours

### Learning Targets

- I can explain how to work well on my own and in a group.
- I can describe the steps I can take to solve math problems.

### Standards ◆ Major △ Supporting ○ Additional

**Content**

△ **1.NBT.A.1** Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.

**Math Practices and Processes**

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

**MPP** Construct viable arguments and critique the reasoning of others.

### Focus

**Content Objective**

- Students discuss and decide on classroom norms of interaction for a productive math learning environment.

**Language Objectives**

- Students talk about the skills, behaviors, and mindsets that contribute to a productive learning environment while answering *Wh-* and Yes/No questions and using the words *helpful, focused,* and *respectful* as needed.
- To support maximizing linguistic and cognitive meta-awareness, ELs participate in MLR5: Co-Craft Questions and Problems.

**SEL Objective**

- Students make decisions about classroom norms for working productively with classmates.

### Coherence

**Previous**

- Students recognized the behaviors that promote a positive math learning environment.

**Now**

- Students think about the practices that support both collaborative and independent math work. They reflect on how to problem solve effectively.

**Next**

- Students continue to identify and practice the behaviors and mindsets that contribute to productive math work.

### Rigor

**Conceptual Understanding**

- Students understand the factors that contribute to a productive learning environment.

**Procedural Skill & Fluency**

- Students build proficiency with the behaviors that support their work as doers of math.

**Application**

- Students apply their understanding of behaviors that contribute to a productive classroom learning environment as they work with classmates.



## Integration of Career Readiness, Life Literacies and Key Skills

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|---|---|
| PFL.9.1.2.CR.1 | Recognize ways to volunteer in the classroom, school and community. |
| PFL.9.1.2.CR.2 | List ways to give back, including making donations, volunteering, and starting a business. |
| 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.FP.1 | Explain how emotions influence whether a person spends or saves. |
| PFL.9.1.2.FP.3 | Identify the factors that influence people to spend or save (e.g., commercials, family, culture, society). |

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|---|---|
| PFL.9.1.2.PB.1 | Determine various ways to save and places in the local community that help people save and accumulate money over time. |
| PFL.9.1.2.PB.2 | Explain why an individual would choose to save money. |
| TECH.9.4.2.CI.1 | Demonstrate openness to new ideas and perspectives (e.g., 1.1.2.CR1a, 2.1.2.EH.1, 6.1.2.CivicsCM.2). |
| TECH.9.4.2.CI.2 | Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a). |
| TECH.9.4.2.CT.2 | Identify possible approaches and resources to execute a plan (e.g., 1.2.2.CR1b, 8.2.2.ED.3). |
| TECH.9.4.2.CT.3 | Use a variety of types of thinking to solve problems (e.g., inductive, deductive). |
| TECH.9.4.2.DC.3 | Explain how to be safe online and follow safe practices when using the internet (e.g., 8.1.2.NI.3, 8.1.2.NI.4). |
| TECH.9.4.2.DC.6 | Identify respectful and responsible ways to communicate in digital environments. |
| TECH.9.4.2.DC.7 | Describe actions peers can take to positively impact climate change (e.g., 6.3.2.CivicsPD.1). |
| TECH.9.4.2.TL.2 | Create a document using a word processing application. |
| TECH.9.4.2.TL.5 | Describe the difference between real and virtual experiences. |
| TECH.9.4.2.TL.6 | Illustrate and communicate ideas and stories using multiple digital tools (e.g., SL.2.5.). |
| TECH.9.4.2.TL.7 | Describe the benefits of collaborating with others to complete digital tasks or develop digital artifacts (e.g., W.2.6., 8.2.2.ED.2). |

## Technology and Design Integration

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|---|---|
| CS.K-2.8.1.2.AP.4 | Break down a task into a sequence of steps. |
| CS.K-2.8.1.2.AP.5 | Describe a program's sequence of events, goals, and expected outcomes. |
| CS.K-2.8.1.2.CS.1 | Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences. |
| CS.K-2.8.1.2.DA.1 | Collect and present data, including climate change data, in various visual formats. |
| CS.K-2.8.1.2.DA.3 | Identify and describe patterns in data visualizations. |
| CS.K-2.8.1.2.DA.4 | Make predictions based on data using charts or graphs. |
| CS.K-2.8.2.2.ITH.4 | Identify how various tools reduce work and improve daily tasks. |

## Interdisciplinary Connections

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| LA.RI.2.1 | Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text. |
| LA.RI.2.2 | Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text. |
| LA.RI.2.3 | Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text. |
| LA.RI.2.4 | Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area. |
| LA.RI.2.5 | Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently. |
| LA.RI.2.6 | Identify the main purpose of a text, including what the author wants to answer, explain, or describe. |

| | |
|---|---|
| LA.RI.2.7 | Explain how specific illustrations and images (e.g., a diagram showing how a machine works) contribute to and clarify a text. |
| LA.RI.2.8 | Describe and identify the logical connections of how reasons support specific points the author makes in a text. |
| LA.RI.2.9 | Compare and contrast the most important points presented by two texts on the same topic. |
| LA.RI.2.10 | Read and comprehend informational texts, including history/social studies, science, and technical texts, at grade level text complexity proficiently with scaffolding as needed. |
| LA.W.2.5 | With guidance and support from adults and peers, focus on a topic and strengthen writing as needed through self-reflection, revising and editing. |
| LA.SL.2.1 | Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. |
| LA.L.2.1 | Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. |

## 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:**


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## 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:**

Reveal 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 observation

Checklists

Questioning and Discussion

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.2.NBT.A.1 | Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases: |
| MATH.2.NBT.A.1.a | 100 can be thought of as a bundle of ten tens — called a “hundred.” |
| MATH.2.NBT.A.1.b | The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones). |
| MATH.2.NBT.A.3 | Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. |