

ESSEX FELS PUBLIC SCHOOL

CURRICULUM & INSTRUCTION

Mathematics

Grade: 2

ABSTRACT

In Grade 2, instructional time should focus on four critical areas: (1) developing understanding of addition, subtraction, and strategies for addition and subtraction within 20; (2) developing understanding of whole number relationships and place value, including grouping in tens and ones; (3) developing understanding of linear measurement and measuring lengths as iterating length units; and (4) reasoning about attributes of, and composing and decomposing geometric shapes.

BOE Approved: 8/12/26

ESSEX FELLS PUBLIC SCHOOL

Grade 2 Math

Unit of Study: <i>(Pacing Guide/Scope & Sequence - Specify time frame by days or weeks)</i>	Numbers to 20 September/October <i>(6 weeks)</i>	Data and Place Value October/November <i>(6 weeks)</i>	Place Value December <i>(3 weeks)</i>
STAGE 1: Desired Results			
Established Goals: Write out complete NJSLs: <i>(Content Specific Standards Only. Only use standards that are applicable to the unit.)</i>	NJSLS: 2.OA.B.2 Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. 2.OA.C.3 Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends. 2.OA.C.4 Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.	NJSLS: 2.DL.B.4 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems ¹ using information presented in a bar graph. 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: a. 100 can be thought of as a bundle of ten tens — called a “hundred.” 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).	NJSLS: 2.NBT.A.3 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. 2.NBT.A.2 Count within 1000; skip-count by 5s, 10s, and 100s. 2.NBT.B.8 Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900. 2.NBT.A.4 Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.

		2.NBT.A.3 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.	
Interdisciplinary Connections: Write out complete NJSLs: <i>(Must have at least one standard from one of these areas but may have more):</i> • <i>ELA companion standards;</i> • <i>Standards for Mathematical Practice</i> • <i>Science;</i> • <i>Visual/Performing Arts) - Standard 1;</i> • <i>Comprehensive Health & PE - Standard 2;</i> • <i>Social Studies - Standard 6;</i> • <i>World Languages - Standard 7;</i>	ELA: L.RF.2.4. Read with sufficient accuracy and fluency to support comprehension. RL.CR.2.1. Ask and answer questions to demonstrate understanding of key details in a literary text, referring explicitly to the text as the basis for the answers. W.WR.2.5. Generate questions about a topic and locate related information from a reference source to obtain information on that topic through shared and independent research. SL.PE.2.1. Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. SL.II.2.2. Recount or describe key ideas or details from a text read aloud or information presented orally or through other media. SL.AS.2.6. Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. Recommended Text: <i>Game Time!</i> By by Ricky Santos • FOCUS addition and subtraction	ELA: L.RF.2.4. Read with sufficient accuracy and fluency to support comprehension. RL.CR.2.1. Ask and answer questions to demonstrate understanding of key details in a literary text, referring explicitly to the text as the basis for the answers. W.WR.2.5. Generate questions about a topic and locate related information from a reference source to obtain information on that topic through shared and independent research. SL.PE.2.1. Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. SL.II.2.2. Recount or describe key ideas or details from a text read aloud or information presented orally or through other media. SL.AS.2.6. Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. Recommended Text: <i>The Number Machine</i> by by Emilio Delgado • FOCUS numbers to 100	ELA: L.RF.2.4. Read with sufficient accuracy and fluency to support comprehension. RL.CR.2.1. Ask and answer questions to demonstrate understanding of key details in a literary text, referring explicitly to the text as the basis for the answers. W.WR.2.5. Generate questions about a topic and locate related information from a reference source to obtain information on that topic through shared and independent research. SL.PE.2.1. Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. SL.II.2.2. Recount or describe key ideas or details from a text read aloud or information presented orally or through other media. SL.AS.2.6. Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

	● SHOW Children find page 3 and draw a dot for each of the 12 shin guards they see. SHARE Children talk about the 12 shin guards and tell that 6 more are needed. WRITE Children write the number sentence $12 + 6 = 18$.	● SHOW Children find page 3 and draw one of the wheels they see. SHARE Children write a prediction about what will happen to Cindy. WRITE Children write 137.	
Integration of Career Readiness, Life Literacies & Key Skills: Write out complete NJSLs: <i>(Must have at least one standard from:</i> ● 9.1 Personal Financial Literacy; or ● 9.2 Career Awareness, Exploration, Preparation & Training; or ● 9.4 Life Literacies & Key Skills)	Career Readiness, Life Literacies & Key Skills: 9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive). 9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive). 9.4.2.GCA.1: Articulate the role of culture in everyday life by describing one's own culture and comparing it to the cultures of other individuals.	Career Readiness, Life Literacies & Key Skills: 9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive). 9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive). 9.4.2.GCA.1: Articulate the role of culture in everyday life by describing one's own culture and comparing it to the cultures of other individuals.	Career Readiness, Life Literacies & Key Skills: 9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive). 9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive). 9.4.2.GCA.1: Articulate the role of culture in everyday life by describing one's own culture and comparing it to the cultures of other individuals.
Integration of Computer Science and Design Thinking: Write out complete NJSLs: <i>(Must have at least one standard from:</i> ● 8.1 Computer Science; or ● 8.2 Design Thinking)	Design Thinking: 8.1.2.DA.1: Collect and present data, including climate change data, in various visual formats. 8.1.2.DA.3: Identify and describe patterns in data visualizations. 8.1.2.DA.4: Make predictions based on data using charts or graphs.	Design Thinking: 8.1.2.DA.1: Collect and present data, including climate change data, in various visual formats. 8.1.2.DA.3: Identify and describe patterns in data visualizations. 8.1.2.DA.4: Make predictions based on data using charts or graphs.	Design Thinking: 8.1.2.DA.1: Collect and present data, including climate change data, in various visual formats. 8.1.2.DA.3: Identify and describe patterns in data visualizations. 8.1.2.DA.4: Make predictions based on data using charts or graphs.

	8.1.2.AP.2: Model the way programs store and manipulate data by using numbers or other symbols to represent information. 8.1.2.AP.4: Break down a task into a sequence of steps. 8.2.2.ED.2: Collaborate to solve a simple problem, or to illustrate how to build a product using the design process.	8.1.2.AP.2: Model the way programs store and manipulate data by using numbers or other symbols to represent information. 8.1.2.AP.4: Break down a task into a sequence of steps. 8.2.2.ED.2: Collaborate to solve a simple problem, or to illustrate how to build a product using the design process.	8.1.2.AP.2: Model the way programs store and manipulate data by using numbers or other symbols to represent information. 8.1.2.AP.4: Break down a task into a sequence of steps. 8.2.2.ED.2: Collaborate to solve a simple problem, or to illustrate how to build a product using the design process.
21st Century Life and Careers: Career Education: Write out complete NJSLS: <i>(Only include if a CTE curriculum</i> ● <i>9.3 Career and Technical Education)</i>	N/A	N/A	N/A
Enduring Understandings: <i>(Follow UbD: What big ideas will students know?)</i>	● determine whether a group of objects up to 20 is odd or even (e.g., by pairing objects, counting them by 2s) ● write an equation to express an even number as a sum of two equal addends ● use repeated addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns ● write an equation to express the total number of objects arranged in a rectangular array as a sum of equal addends	● generate measurement data by measuring lengths of several objects to the nearest whole unit ● generate measurement data by making repeated measurements of the same object. ● show measurements by making a line plot, where the horizontal scale is marked off in whole-number units. ● organize data with up to four categories. ● represent data with up to four categories using a picture graph. ● represent data with up to four categories using a bar graph.	● read numbers to 1000 using base-ten numerals ● write numbers to 1000 using base-ten numerals ● read numbers to 1000 using expanded form and number names ● write numbers to 1000 using expanded form and number names ● count within 1000 ● skip count by fives ● skip count by tens ● skip count by hundreds ● mentally add or subtract 10 to or from any given number between 100 and 900

		● solve simple put-together, take-apart, and compare problems using a bar graph ● read numbers to 1000 using base-ten numerals ● write numbers to 1000 using base-ten numerals ● read numbers to 1000 using expanded form and number names ● write numbers to 1000 using expanded form and number names	● mentally add or subtract 100 to or from any given number between 100 and 900 ● compare two three-digit numbers using place value understanding and record the results using the symbols $>$, $=$, $<$
Essential Questions: <i>(Follow UbD best practices in the creation of questions)</i>	1. How can one find the total of parts? 2. How can one find the missing part of a whole? 3. Why would one need to pair things?	1. How can representing data help us to interpret it and draw conclusions 2. Why is place value important?	1. Why is place value important? 2. How does place value help one find the answers to addition and subtraction problems?
STAGE 2: Evidence			
Assessment & Evidence: <i>(By what criteria will performances of understanding be judged? Include:</i> 1. Formative, 2. Summative, 3. Alternative - Performance/Project) 4. Benchmark)	Formative Assessments ● Student Participation ● Teacher Observations ● Textbook/Workbook Activities ● Learning Centers ● Journal Entries ● Quizzes ● Exit Tickets ● Open-Ended Responses Summative Assessments	Formative Assessments ● Student Participation ● Teacher Observations ● Textbook/Workbook Activities ● Learning Centers ● Journal Entries ● Quizzes ● Exit Tickets ● Open-Ended Responses Summative Assessments	Formative Assessments ● Student Participation ● Teacher Observations ● Textbook/Workbook Activities ● Learning Centers ● Journal Entries ● Quizzes ● Exit Tickets ● Open-Ended Responses Summative Assessments

	- Unit Assessments (may include but not limited to): Tests, Quizzes, Google Forms etc Alternative Assessments - Performance Tasks to solve real world problems - Projects - Problem based or concept based projects - Math journals Benchmark Assessments - Student growth assessments - IXL assessment - MAP	- Unit Assessments (may include but not limited to): Tests, Quizzes, Google Forms etc Alternative Assessments - Performance Tasks to solve real world problems - Projects - Problem based or concept based projects - Math journals Benchmark Assessments - Student growth assessments - IXL assessment - MAP	- Unit Assessments (may include but not limited to): Tests, Quizzes, Google Forms etc Alternative Assessments - Performance Tasks to solve real world problems - Projects - Problem based or concept based projects - Math journals Benchmark Assessments - Student growth assessments - IXL assessment - MAP
STAGE 3: Learning Plan			
Learning Activities/Content: <i>(What is the core content of this unit? What performance tasks/ activities will students do? What skills will students know? Include content that adheres to NJ Administrative Code and Statutes:</i> <i>Amistad Law</i> <i>Holocaust Law</i> <i>LGBTQ/Disabilities Law)</i>	Activities: - Use doubles facts as a strategy for finding sums for near doubles facts. - Recall sums for basic facts using strategies and properties. - Use the inverse relationship of addition and subtraction to recall basic facts. - Recall differences for basic facts using mental strategies - Recall sums for addition facts using the make a ten strategy.	Activities: - Collect data in a survey and record that data in a tally chart. - Interpret data in picture graphs and use that information to solve problems. - Draw picture graphs to represent data. - Interpret data in bar graphs and use that information to solve problems. - Draw bar graphs to represent data.	Activities: - Extend counting sequences within 1,000, counting by 1s, 5s, 10s, and 100s. - Identify 10 more, 10 less, 100 more, or 100 less than a given number. - Extend number patterns by counting by tens or hundreds. - Solve problems involving number comparisons by using concrete and visual models. - Compare three-digit numbers using $>$, $=$, and $<$ symbols.

	- Find differences on a number line to develop the mental strategy of decomposing to simplify facts. - Find sums of three addends by applying the Commutative and Associative Properties of Addition. - Classify numbers up to 20 as even or odd. - Write equations with equal addends to represent even numbers. - Represent and solve problems involving equal groups. - Write equations using repeated addition to find the total number of objects in arrays. - Practice writing equations using repeated addition to find the total number of objects in arrays DEI Activities: Diversity and Inclusion Law (N.J.S.A. 18A:35-4.36a) - Collaborate with your peers to solve culturally responsive word problems. - Answer questions by using multiple and varying perspectives and sources. - Create real-world situations to help students connect diverse	- Understand that each group of 10 tens is equivalent to 1 hundred. - Write three-digit numbers that are represented by groups of tens. - Use concrete and visual models to represent three-digit numbers. - Apply place value concepts to write three-digit numbers that are represented by concrete models. - Use place value to describe the values of digits in numbers to 1,000. - Write three-digit numbers in expanded form. - Read and write three-digit numbers using number names. - Write three-digit numbers in expanded form and in standard form. - Apply place value concepts to find equivalent representations of three-digit numbers. - Apply place value concepts to show and write a three-digit number in different ways. DEI Activities: Diversity and Inclusion Law (N.J.S.A. 18A:35-4.36a)	DEI Activities: Diversity and Inclusion Law (N.J.S.A. 18A:35-4.36a) - Collaborate with your peers to solve culturally responsive word problems. - Answer questions by using multiple and varying perspectives and sources. - Create real-world situations to help students connect diverse cultural experiences and become excited about math. - Connect students' language and cultural aspects of students' background to foster mathematical identity development. Amistad 6.1.5.CivicsDP.2: Compare and contrast responses of individuals and groups, past and present, to violations of fundamental rights (e.g., fairness, civil rights, human rights). Holocaust Law (N.J.S.A. 18A:35-28) 6.2.2.D.2 Recognize real people and fictional characters who have demonstrated responsible leadership and citizenship and
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	cultural experiences and become excited about math. ● Connect students' language and cultural aspects of students' background to foster mathematical identity development.	● Collaborate with your peers to solve culturally responsive word problems. ● Answer questions by using multiple and varying perspectives and sources. ● Create real-world situations to help students connect diverse cultural experiences and become excited about math. ● Connect students' language and cultural aspects of students' background to foster mathematical identity development. ● 6.1.5.CivicsHR.4: Identify actions that are unfair or discriminatory, such as bullying, and propose solutions to address such actions. Amistad ● 6.1.5.CivicsDP.2: Compare and contrast responses of individuals and groups, past and present, to violations of fundamental rights (e.g., fairness, civil rights, human rights). Holocaust Law (N.J.S.A. 18A:35-28) ● 6.2.2.D.2 Recognize real people and fictional characters who have	identify the characteristics that have made them good examples. ● Through age-appropriate collaborative learning experiences, students will develop kindness, empathy, cooperation, and respect for others. Mathematical activities will encourage fairness, sharing, responsible decision-making, and the understanding that every individual deserves to be treated with dignity and respect.
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		demonstrated responsible leadership and citizenship and identify the characteristics that have made them good examples. Through age-appropriate collaborative learning experiences, students will develop kindness, empathy, cooperation, and respect for others. Mathematical activities will encourage fairness, sharing, responsible decision-making, and the understanding that every individual deserves to be treated with dignity and respect.	
Resources: <i>(Include names of texts and all online resources)</i>	- HMH Into Math Copyright 2020 by Houghton Mifflin Harcourt Publishing Company - Illustrative Mathematics https://www.illustrativemathematics.org/ - Khan Academy https://www.khanacademy.org/ - National Council of Teachers of Mathematics http://www.nctm.org/ - National Library of Virtual Manipulatives http://nlvm.usu.edu/	- HMH Into Math Copyright 2020 by Houghton Mifflin Harcourt Publishing Company - Illustrative Mathematics https://www.illustrativemathematics.org/ - Khan Academy https://www.khanacademy.org/ - National Council of Teachers of Mathematics http://www.nctm.org/ - National Library of Virtual Manipulatives http://nlvm.usu.edu/	- HMH Into Math Copyright 2020 by Houghton Mifflin Harcourt Publishing Company - Illustrative Mathematics https://www.illustrativemathematics.org/ - Khan Academy https://www.khanacademy.org/ - National Council of Teachers of Mathematics http://www.nctm.org/ - National Library of Virtual Manipulatives http://nlvm.usu.edu/

	● NCTM Illuminations Resources for Teaching Math http://illuminations.nctm.org/ ● Freckle ● Generation Genius ● BrainPop ● IXL ● Education.com ● Edpuzzle	● NCTM Illuminations Resources for Teaching Math http://illuminations.nctm.org/ ● Freckle ● Generation Genius ● BrainPop ● IXL ● Education.com ● Edpuzzle	● NCTM Illuminations Resources for Teaching Math http://illuminations.nctm.org/ ● Freckle ● Generation Genius ● BrainPop ● IXL ● Education.com ● Edpuzzle
Differentiation: <i>(What type of differentiated instruction will be used for each of the following subgroups:</i> 1. <i>Special Education</i> 2. <i>English Language Learners (ELLs)</i> 3. <i>At Risk/BSI</i> 4. <i>Gifted & Talented/Advanced 5. 504)</i>	Special Education ● Individualized Education Plans (IEPs) ● Exemplars of varied performance levels ● Multi-media presentations ● Manipulatives ● Scaffolded Lessons ● Guided note-taking ● Study guides ● Modified homework ● Differentiated pre-typed class notes and example problems ● Flexible small group instruction ● Use of alternate assessments ● Modelings English Language Learners (ELLs): ● Pair visual prompts with verbal presentations ● Provide repetition and practice ● Model skills/techniques to be mastered ● Extended time	Special Education ● Individualized Education Plans (IEPs) ● Exemplars of varied performance levels ● Multi-media presentations ● Manipulatives ● Scaffolded Lessons ● Guided note-taking ● Study guides ● Modified homework ● Differentiated pre-typed class notes and example problems ● Flexible small group instruction ● Use of alternate assessments ● Modelings English Language Learners (ELLs): ● Pair visual prompts with verbal presentations ● Provide repetition and practice ● Model skills/techniques to be mastered ● Extended time	Special Education ● Individualized Education Plans (IEPs) ● Exemplars of varied performance levels ● Multi-media presentations ● Manipulatives ● Scaffolded Lessons ● Guided note-taking ● Study guides ● Modified homework ● Differentiated pre-typed class notes and example problems ● Flexible small group instruction ● Use of alternate assessments ● Modelings English Language Learners (ELLs): ● Pair visual prompts with verbal presentations ● Provide repetition and practice ● Model skills/techniques to be mastered ● Extended time

	● Assign a peer helper in the class setting ● Provide access to a computer ● Front load vocabulary ● Dictionaries ● Mnemonic devices ● Visual aids ● Provide notes to students as needed in native language ● Cultural responsiveness ● Present information in a variety of ways (notes, guided notes, video clips, images, diagrams, graphic organizers, stations) ● Group students with others of different learning levels and abilities. ● Non-verbal assessments Students At-Risk (BSI) ● Interactive maps ● Graphic organizers ● Use of technology for class assignments and homework ● Provide opportunities for students to discuss material verbally and also periods of quiet reflection. ● Highlighted and/or repeated directions Gifted and Talented (Advanced) Students: ● Allow students to pursue	● Assign a peer helper in the class setting ● Provide access to a computer ● Front load vocabulary ● Dictionaries ● Mnemonic devices ● Visual aids ● Provide notes to students as needed in native language ● Cultural responsiveness ● Present information in a variety of ways (notes, guided notes, video clips, images, diagrams, graphic organizers, stations) ● Group students with others of different learning levels and abilities. ● Non-verbal assessments Students At-Risk (BSI) ● Interactive maps ● Graphic organizers ● Use of technology for class assignments and homework ● Provide opportunities for students to discuss material verbally and also periods of quiet reflection. ● Highlighted and/or repeated directions Gifted and Talented (Advanced) Students: ● Allow students to pursue	● Assign a peer helper in the class setting ● Provide access to a computer ● Front load vocabulary ● Dictionaries ● Mnemonic devices ● Visual aids ● Provide notes to students as needed in native language ● Cultural responsiveness ● Present information in a variety of ways (notes, guided notes, video clips, images, diagrams, graphic organizers, stations) ● Group students with others of different learning levels and abilities. ● Non-verbal assessments Students At-Risk (BSI) ● Interactive maps ● Graphic organizers ● Use of technology for class assignments and homework ● Provide opportunities for students to discuss material verbally and also periods of quiet reflection. ● Highlighted and/or repeated directions Gifted and Talented (Advanced) Students: ● Allow students to pursue
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	independent projects based on their individual interests ● Provide enrichment activities that include more advanced material ● Allow team-teaching opportunities and collaboration ● Set individual goals ● Conduct research and provide presentation of appropriate topics ● Design surveys to generate and analyze data to be used in discussion. ● Higher-level questioning techniques ● Provide assessments at a higher level of thinking 504 Plans ● Preferential seating ● Extended time on tests and assignments ● Reduced homework or classwork ● Verbal, visual, or technology aids ● Modified textbooks or audio-video materials ● Oral assessments ● Highlighted and/or repeated directions	independent projects based on their individual interests ● Provide enrichment activities that include more advanced material ● Allow team-teaching opportunities and collaboration ● Set individual goals ● Conduct research and provide presentation of appropriate topics ● Design surveys to generate and analyze data to be used in discussion. ● Higher-level questioning techniques ● Provide assessments at a higher level of thinking 504 Plans ● Preferential seating ● Extended time on tests and assignments ● Reduced homework or classwork ● Verbal, visual, or technology aids ● Modified textbooks or audio-video materials ● Oral assessments ● Highlighted and/or repeated directions	independent projects based on their individual interests ● Provide enrichment activities that include more advanced material ● Allow team-teaching opportunities and collaboration ● Set individual goals ● Conduct research and provide presentation of appropriate topics ● Design surveys to generate and analyze data to be used in discussion. ● Higher-level questioning techniques ● Provide assessments at a higher level of thinking 504 Plans ● Preferential seating ● Extended time on tests and assignments ● Reduced homework or classwork ● Verbal, visual, or technology aids ● Modified textbooks or audio-video materials ● Oral assessments ● Highlighted and/or repeated directions
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Unit of Study: <i>(Pacing Guide/Scope & Sequence - Specify time frame by days or weeks)</i>	Money, Time, and Two Digit Addition and Subtraction <i>January/February</i> <i>(7 weeks)</i>	Three Digit Addition and Subtraction <i>March/April</i> <i>(8 weeks)</i>	Measurement, Geometry, and Fractions <i>May/June</i> <i>(7 weeks)</i>
STAGE 1: Desired Results			
Established Goals: Write out complete NJSLS: <i>(Content Specific Standards Only. Only use standards that are applicable to the unit.)</i>	NJSLS: 2.M.C.8 Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have? 2.M.C.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m. 2.NBT.B.6 Add up to four two-digit numbers using strategies based on place value and properties of operations. 2.NBT.B.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9 Explain why addition and subtraction strategies work, using place value and the properties of operations. (Clarification: Explanations should be supported by drawings or objects.)	NJSLS: 2.NBT.B.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.6 Add up to four two-digit numbers using strategies based on place value and properties of operations. 2.NBT.B.7 Add and subtract within 1000, 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. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds 2.NBT.B.9 Explain why addition and subtraction strategies work, using place value and the properties of operations. (Clarification:	NJSLS: 2.M.B.6 Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram. 2.M.B.5 Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem. 2.G.A.1 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. (Clarification: sizes are compared directly or visually, not compared by measuring) 2.G.A.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.

		Explanations should be supported by drawings or objects.) 2.OA.A.1 Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. 2.M.A.3 Estimate lengths using units of inches, feet, centimeters, and meters. 2.M.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. 2.DL.B.3 Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units. 2.M.A.2 Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen. 2.M.A.4 Measure to determine how much longer one object is than	2.G.A.3 Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words <i>halves</i>, <i>thirds</i>, <i>half of</i>, <i>a third of</i>, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape. For example, students partition a rectangle (i.e. the whole) into three equal shares, identify each of the shares as a ‘third’ and describe the rectangle as three ‘thirds’. 2.OA.C.4 Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.
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		another, expressing the length difference in terms of a standard length unit.	
Interdisciplinary Connections: Write out complete NJSLs: <i>(Must have at least one standard from one of these areas but may have more):</i> • <i>ELA companion standards;</i> • <i>Standards for Mathematical Practice</i> • <i>Science;</i> • <i>Visual/Performing Arts) - Standard 1;</i> • <i>Comprehensive Health & PE - Standard 2;</i> • <i>Social Studies - Standard 6;</i> • <i>World Languages - Standard 7;</i>	ELA: L.RF.2.4. Read with sufficient accuracy and fluency to support comprehension. RL.CR.2.1. Ask and answer questions to demonstrate understanding of key details in a literary text, referring explicitly to the text as the basis for the answers. W.WR.2.5. Generate questions about a topic and locate related information from a reference source to obtain information on that topic through shared and independent research. SL.PE.2.1. Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. SL.II.2.2. Recount or describe key ideas or details from a text read aloud or information presented orally or through other media. SL.AS.2.6. Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. Recommended Text: <i>Coin Trick</i> by Elena Ramone • FOCUS money	ELA: L.RF.2.4. Read with sufficient accuracy and fluency to support comprehension. RL.CR.2.1. Ask and answer questions to demonstrate understanding of key details in a literary text, referring explicitly to the text as the basis for the answers. W.WR.2.5. Generate questions about a topic and locate related information from a reference source to obtain information on that topic through shared and independent research. SL.PE.2.1. Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. SL.II.2.2. Recount or describe key ideas or details from a text read aloud or information presented orally or through other media. SL.AS.2.6. Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. Recommended Text: <i>Comic Books for Sale</i> by Michael Sellers	ELA: L.RF.2.4. Read with sufficient accuracy and fluency to support comprehension. RL.CR.2.1. Ask and answer questions to demonstrate understanding of key details in a literary text, referring explicitly to the text as the basis for the answers. W.WR.2.5. Generate questions about a topic and locate related information from a reference source to obtain information on that topic through shared and independent research. SL.PE.2.1. Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. SL.II.2.2. Recount or describe key ideas or details from a text read aloud or information presented orally or through other media. SL.AS.2.6. Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. Recommended Text: <i>The If Game</i> by Pat Masco • FOCUS adding three-digit numbers

	• SHOW Children find page 7 and draw a nickel, a dime, and a quarter. SHARE Children talk about how a nickel is 5 cents, a dime is 10 cents, a quarter is 25 cents, and all three together is 40 cents. WRITE Children write 5¢, 10¢, and 25¢.	• FOCUS subtracting two-digit numbers • SHOW Children find page 4 and draw a picture of 16 comic books. SHARE Children talk about the picture and tell that the books are arranged in two rows of ten and one row of eight. WRITE Children write that there are about 28 books <i>Nature Walk</i> by April Reign • FOCUS measurement • SHOW Children move a worm next to either one crayon or two paper clips. SHARE Children talk about how the boy used both paper clips and crayons to find the length of the worm. WRITE Children write that the girl stacked crayons on top of each other to measure the height of the flower.	• SHOW Children may draw 4 rhinos running and 2 drinking with each rhino standing for 100. SHARE Children talk about and tell that 6 hundreds minus 2 hundreds equals 4 hundreds. WRITE Children write the number sentence $600 - 200 = 400$. <i>The Pizza Puzzle</i> by William Jeffreys • FOCUS fractions of a whole • SHOW Children find pages 3 and 4 and draw a square pie cut into smaller squares and a round pie cut in triangular shapes. SHARE Children look at pages 5 and 6 and tell that $\frac{8}{9}$ of the square pie is left and $\frac{1}{2}$ of the round pie is left. WRITE Children look at pages 5 and 6 and tell that $\frac{8}{9}$ of the square pie is left and $\frac{1}{2}$ or $\frac{3}{6}$ of the round pie is left.
Integration of Career Readiness, Life Literacies & Key Skills: Write out complete NJSLs: <i>(Must have at least one standard from:</i> • 9.1 Personal Financial Literacy; or • 9.2 Career Awareness, Exploration, Preparation & Training; or • 9.4 Life Literacies & Key Skills)	Career Readiness, Life Literacies & Key Skills: 9.1.2. FL.1: Differentiate the various forms of money and how they are used (e.g., coins, bills, checks, debit and credit cards). 9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive). 9.4.2.CT.3: Use a variety of types of	Career Readiness, Life Literacies & Key Skills: 9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive). 9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive). 9.4.2.GCA.1: Articulate the role of culture in everyday life by describing	Career Readiness, Life Literacies & Key Skills: 9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive). 9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive). 9.4.2.GCA.1: Articulate the role of culture in everyday life by describing

	thinking to solve problems (e.g., inductive, deductive). 9.4.2.GCA.1: Articulate the role of culture in everyday life by describing one's own culture and comparing it to the cultures of other individuals.	one's own culture and comparing it to the cultures of other individuals.	one's own culture and comparing it to the cultures of other individuals.
Integration of Computer Science and Design Thinking: Write out complete NJSLs: <i>(Must have at least one standard from:</i> • <i>8.1 Computer Science; or</i> • <i>8.2 Design Thinking)</i>	Design Thinking: 8.1.2.DA.1: Collect and present data, including climate change data, in various visual formats. 8.1.2.DA.3: Identify and describe patterns in data visualizations. 8.1.2.DA.4: Make predictions based on data using charts or graphs. 8.1.2.AP.2: Model the way programs store and manipulate data by using numbers or other symbols to represent information. 8.1.2.AP.4: Break down a task into a sequence of steps. 8.2.2.ED.2: Collaborate to solve a simple problem, or to illustrate how to build a product using the design process.	Design Thinking: 8.1.2.DA.1: Collect and present data, including climate change data, in various visual formats. 8.1.2.DA.3: Identify and describe patterns in data visualizations. 8.1.2.DA.4: Make predictions based on data using charts or graphs. 8.1.2.AP.2: Model the way programs store and manipulate data by using numbers or other symbols to represent information. 8.1.2.AP.4: Break down a task into a sequence of steps. 8.2.2.ED.2: Collaborate to solve a simple problem, or to illustrate how to build a product using the design process.	Design Thinking: 8.1.2.DA.1: Collect and present data, including climate change data, in various visual formats. 8.1.2.DA.3: Identify and describe patterns in data visualizations. 8.1.2.DA.4: Make predictions based on data using charts or graphs. 8.1.2.AP.2: Model the way programs store and manipulate data by using numbers or other symbols to represent information. 8.1.2.AP.4: Break down a task into a sequence of steps. 8.2.2.ED.2: Collaborate to solve a simple problem, or to illustrate how to build a product using the design process.
21st Century Life and Careers: Career Education: Write out complete NJSLs: <i>(Only include if a CTE curriculum</i> • <i>9.3 Career and Technical Education)</i>	N/A	N/A	N/A
Enduring Understandings: <i>(Follow UbD: What big ideas will students know?)</i>	• determine the total amount of money by counting combinations of dollar bills, quarters, dimes, nickels, and	• add and subtract within 100 using strategies based on place value, properties of operations, and/or the	• add and subtract within 100 to solve word problems that involve lengths of the same units

	pennies using the \$ and ¢ symbols appropriately • solve word problems involving dollar bills, quarters, dimes, nickels, and pennies using the \$ and ¢ symbols appropriately • use analog and digital clocks to tell time to the nearest five minutes using a.m. and p.m. • add up to four two-digit numbers using place value strategies and properties of operations • add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction, with accuracy and efficiency • explain why addition and subtraction strategies work based on place value • explain why addition and subtraction strategies work based on properties of operations	relationship between addition and subtraction, with accuracy and efficiency • add up to four two-digit numbers • using place value strategies and properties of operations • use concrete models and a place value strategy to add and subtract within 1000, and relate the written strategy to the model • use drawings and a place value strategy to add and subtract within 1000, and relate the written strategy to the drawing • use concrete models and a strategy based on properties of operations and/or the relationship between addition and subtraction to add and subtract within 1000, and relate the written strategy to the model • use drawings and a strategy based on properties of operations and/or the relationship between addition and subtraction to add and subtract within 1000, and relate the written strategy to the drawing • explain why addition and subtraction strategies work based on place value	• use equations with a symbol for the unknown and drawings, such as drawings of rulers, to represent the problem • use equally spaced points of a number line to represent whole numbers as lengths from 0 • represent whole number sums within 100 on a number line diagram ▪ represent whole number differences within 100 on a number line diagram • recognize shapes having specified attributes. • draw shapes having specified attributes. • identify triangles, quadrilaterals, pentagons, hexagons, and cubes. • partition a rectangle into rows and columns of the same-size squares. • count the squares in a partitioned rectangle to find the total number. • partition circles into two, three, or four equal shares. • partition rectangles into two, three, or four equal shares. • appropriately use the words <i>halves</i>, <i>thirds</i>, <i>fourths</i> and the phrases <i>half of</i>, <i>a third of</i>, <i>a fourth of</i>, and <i>quarter of</i>. • describe the whole as two halves, three thirds, or four fourths. • identify equal shares of identical wholes even though they do not have the same shape.
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		● explain why addition and subtraction strategies work based on properties of operations ● represent a word problem with drawings and equations using a symbol for the unknown ● solve one and two-step addition and subtraction word problems within 100 involving situations of adding to, taking from, putting together, taking apart, and comparing ● generate measurement data by measuring lengths of several objects to the nearest whole unit ● generate measurement data by making repeated measurements of the same object. ● measure lengths of objects after selecting appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes ● measure the length of an object twice using different units of measure describe how two different measurements of an object relate to the size of the measurement unit chosen	● use repeated addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns ● write an equation to express the total number of objects arranged in a rectangular array as a sum of equal addends
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		- estimate lengths of objects using the units of inches, feet, centimeters, or meters - measure to determine how much longer one object is than the other and express the difference in length using a standard unit of length	
Enduring Understandings: <i>(Follow UbD: What big ideas will students know?)</i>	- How do we determine how much money is needed and how money one has? - How do the positions of the hands on an analog clock indicate the time? - How do the numbers on a digital clock indicate the time? - How does place value help one find the answers to addition and subtraction problems?	- How does place value help one find the answers to addition and subtraction problems? - How can one find the total of parts? - How can one find the missing part of a whole? - How can representing data help us to interpret it and draw conclusions? - Why do we measure objects? - How do we measure objects? - Why do we need standard units of measurement?	- How are the locations of numbers on a number line related to length? - How can addition and subtraction be used to find lengths? - Why do we need to identify shapes? - Why would we partition shapes? - Why would one need to pair things?
STAGE 2: Evidence			
Assessment & Evidence: <i>(By what criteria will performances of understanding be judged? Include:</i> 1. <i>Formative,</i> 2. <i>Summative,</i> 3. <i>Alternative - Performance/Project)</i> 4. <i>Benchmark)</i>	Formative Assessments - Student Participation - Teacher Observations - Textbook/Workbook Activities - Learning Centers - Journal Entries - Quizzes	Formative Assessments - Student Participation - Teacher Observations - Textbook/Workbook Activities - Learning Centers - Journal Entries - Quizzes	Formative Assessments - Student Participation - Teacher Observations - Textbook/Workbook Activities - Learning Centers - Journal Entries - Quizzes

	- Exit Tickets - Open-Ended Responses Summative Assessments - Unit Assessments (may include but not limited to): Tests, Quizzes, Google Forms etc Alternative Assessments - Performance Tasks to solve real world problems - Projects - Problem based or concept based projects - Math journals Benchmark Assessments - Student Growth Assessments - IXL assessment - MAP	- Exit Tickets - Open-Ended Responses Summative Assessments - Unit Assessments (may include but not limited to): Tests, Quizzes, Google Forms etc Alternative Assessments - Performance Tasks to solve real world problems - Projects - Problem based or concept based projects - Math journals Benchmark Assessments - Student Growth Assessments - IXL assessment - MAP	- Exit Tickets - Open-Ended Responses Summative Assessments - Unit Assessments (may include but not limited to): Tests, Quizzes, Google Forms etc Alternative Assessments - Performance Tasks to solve real world problems - Projects - Problem based or concept based projects - Math journals Benchmark Assessments - Student Growth Assessments - IXL assessment - MAP
STAGE 3: Learning Plan			
Learning Activities/Content: <i>(What is the core content of this unit? What performance tasks/ activities will students do? What skills will students know? Include content that adheres to NJ Administrative Code and Statutes:</i> <i>Amistad Law</i> <i>Holocaust Law</i> <i>LGBTQ/Disabilities Law)</i>	Activities: - Explore the relationship between place value and coins (dimes and pennies). - Identify and find the total value of combinations of quarters, dimes, nickels, and pennies. Order combinations of coins by value and then find the total value.	Activities: - Represent two-digit addition with regrouping ones as tens using visual models. - Represent two-digit subtraction with regrouping 1 ten as 10 ones. - Use place-value charts to represent and record two-digit addition.	Activities: - Identify and describe three-dimensional shapes according to the number of faces, edges, and vertices. - Name three-, four-, five-, and six-sided shapes according to the number of sides and vertices. - Identify angles in

	● Identify and apply the relative values of the different coins to each other. ● Show the value of one dollar in different ways using coins. ● Use the value of different bill denominations to find the total value for a combination of bills and solve problems involving bills. ● Use strategies to solve word problems involving money. ● Tell and write time from analog and digital clocks to the nearest five minutes. ● Read digital and analog clocks, and use phrases to describe times to five minutes. ● Practice telling and writing time to the nearest five minutes. ● Practice telling and writing time, using a.m. and p.m. ● Find a sum by decomposing a one-digit addend to make a two-digit addend a multiple of 10. ● Find a difference by decomposing a one-digit subtrahend to subtract it from a two-digit number. ● Apply place-value understanding when decomposing numbers to solve two-digit addition.	● Use concrete models to represent two-digit subtraction and connect the concrete model to the subtraction algorithm. ● Understand how to record two-digit addition with and without regrouping. ● Rewrite addition problems given in horizontal form as vertical addition algorithm and find the sum. ● Rewrite subtraction problems given in horizontal form as vertical subtraction algorithm and find the difference. ● Use strategies of addition to find the sum of 3 two-digit numbers. ● Use strategies of addition to find the sum of 4 two-digit numbers. ● Use drawings to write equations to represent addition and subtraction situations. ● Draw quick pictures to represent three-digit addition. ● Apply place-value concepts when decomposing numbers to solve three-digit addition problems. ● Record three-digit addition using the standard algorithm with possible regrouping of both ones and tens.	two-dimensional shapes ● Sort two-dimensional shapes according to their attributes. ● Partition rectangles into same-sized squares and find the total number of these squares. ● Identify and name equal shares of circles and rectangles as halves, thirds, or fourths. ● Partition circles and rectangles to show halves, thirds, or fourths. ● Identify and describe one equal share as a half of, a third of, or a fourth of a whole. ● Use visual models to show that equal shares of the same wholes do not need to have the same shape. DEI Activities: Diversity and Inclusion Law (N.J.S.A. 18A:35-4.36a) ● Collaborate with your peers to solve culturally responsive word problems. ● Answer questions by using multiple and varying perspectives and sources. ● Create real-world situations to help students connect diverse cultural experiences and
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	DEI Activities Diversity and Inclusion Law (N.J.S.A. 18A:35-4.36a) • Collaborate with your peers to solve culturally responsive word problems. • Answer questions by using multiple and varying perspectives and sources. • Create real-world situations to help students connect diverse cultural experiences and become excited about math. • Connect students' language and cultural aspects of students' background to foster mathematical identity development. • 6.1.5.CivicsHR.4: Identify actions that are unfair or discriminatory, such as bullying, and propose solutions to address such actions. Amistad (N.J.S.A. 18A:52-16A-88) • 6.1.5.CivicsDP.2: Compare and contrast responses of individuals and groups, past and present, to violations of fundamental rights (e.g., fairness, civil rights, human rights).	• Solve problems involving three-digit subtraction by building concrete models. • Record three-digit subtraction using the standard algorithm with possible regrouping of hundreds. • Show regrouping for subtraction with three-digit numbers with zeros. • Estimate the lengths of objects by mentally partitioning the lengths into inches. • Make and use a paper ruler to measure the lengths of objects. • Measure the lengths of objects to the nearest inch using an inch ruler. • Estimate the lengths of objects by mentally partitioning the lengths into feet. • Measure the lengths of objects in both inches and feet to explore the inverse relationship between size and number of units. • Measure the lengths of objects to the nearest yard using a yardstick. • Select appropriate tools for measuring different lengths. • Estimate lengths of objects in centimeters by comparing	• become excited about math. • Connect students' language and cultural aspects of students' background to foster mathematical identity development. • 6.1.5.CivicsHR.4: Identify actions that are unfair or discriminatory, such as bullying, and propose solutions to address such actions. • 2.1.5.EH.3: Identify different feelings and emotions that people may experience and how they might express these emotions (e.g., anger, fear, happiness, sadness, hopelessness, anxiety). • 2.1.5.SSH.3: Demonstrate ways to promote dignity and respect for all people (e.g. sexual orientation, gender identity and expression, race, ethnicity, socio-economic status, differing ability, immigration status, family configuration). Amistad • 6.1.5.CivicsDP.2: Compare and contrast responses of individuals and groups, past and present, to violations of fundamental rights (e.g.,
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	- Students will participate in mathematical activities that incorporate diverse names, cultures, and real-world contexts while recognizing the contributions of African Americans and other diverse individuals to society. Through collaborative problem-solving, students will develop respect, fairness, and appreciation for the experiences and perspectives of others. Holocaust Law (N.J.S.A. 18A:35-28) 6.2.2.D.2 Recognize real people and fictional characters who have demonstrated responsible leadership and citizenship and identify the characteristics that have made them good examples. - Through age-appropriate collaborative learning experiences, students will develop kindness, empathy, cooperation, and respect for others. Mathematical activities will encourage fairness, sharing, responsible decision-making, and the understanding that every individual deserves to be	them to known lengths. - Measure lengths of objects to the nearest centimeter using a centimeter ruler. - Estimate the lengths of objects in meters. - Measure the lengths of objects in both centimeters and meters to explore the inverse relationship between size and number of units. DEI Activities: Diversity and Inclusion Law (N.J.S.A. 18A:35-4.36a) - Collaborate with your peers to solve culturally responsive word problems. - Answer questions by using multiple and varying perspectives and sources. - Create real-world situations to help students connect diverse cultural experiences and become excited about math. - Connect students' language and cultural aspects of students' background to foster mathematical identity development. 6.1.5.CivicsHR.4: Identify actions that are unfair or discriminatory, such as bullying, and propose solutions to address such	fairness, civil rights, human rights). Holocaust Law (N.J.S.A. 18A:35-28) 6.2.2.D.2 Recognize real people and fictional characters who have demonstrated responsible leadership and citizenship and identify the characteristics that have made them good examples. - Through age-appropriate collaborative learning experiences, students will develop kindness, empathy, cooperation, and respect for others. Mathematical activities will encourage fairness, sharing, responsible decision-making, and the understanding that every individual deserves to be treated with dignity and respect.
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		examples. Through age-appropriate collaborative learning experiences, students will develop kindness, empathy, cooperation, and respect for others. Mathematical activities will encourage fairness, sharing, responsible decision-making, and the understanding that every individual deserves to be treated with dignity and respect.	
Resources: <i>(Include names of texts and all online resources)</i>	- HMH Into Math Copyright 2020 by Houghton Mifflin Harcourt Publishing Company - Illustrative Mathematics https://www.illustrativemathematics.org/ - Khan Academy https://www.khanacademy.org/ - National Council of Teachers of Mathematics http://www.nctm.org/ - National Library of Virtual Manipulatives http://nlvm.usu.edu/ - NCTM Illuminations Resources for Teaching Math http://illuminations.nctm.org/ - Freckle - Generation Genius	- HMH Into Math Copyright 2020 by Houghton Mifflin Harcourt Publishing Company - Illustrative Mathematics https://www.illustrativemathematics.org/ - Khan Academy https://www.khanacademy.org/ - National Council of Teachers of Mathematics http://www.nctm.org/ - National Library of Virtual Manipulatives http://nlvm.usu.edu/ - NCTM Illuminations Resources for Teaching Math http://illuminations.nctm.org/ - Freckle - Generation Genius	- HMH Into Math Copyright 2020 by Houghton Mifflin Harcourt Publishing Company - Illustrative Mathematics https://www.illustrativemathematics.org/ - Khan Academy https://www.khanacademy.org/ - National Council of Teachers of Mathematics http://www.nctm.org/ - National Library of Virtual Manipulatives http://nlvm.usu.edu/ - NCTM Illuminations Resources for Teaching Math http://illuminations.nctm.org/ - Freckle - Generation Genius

	• BrainPop • IXL • Education.com • Edpuzzle	• BrainPop • IXL • Education.com • Edpuzzle	• BrainPop • IXL • Education.com • Edpuzzle
Differentiation: <i>(What type of differentiated instruction will be used for each of the following subgroups:</i> 1. <i>Special Education</i> 2. <i>English Language Learners (ELLs)</i> 3. <i>At Risk/BSI</i> 4. <i>Gifted & Talented/Advanced 5. 504)</i>	Special Education • Individualized Education Plans (IEPs) • Exemplars of varied performance levels • Multi-media presentations • Manipulatives • Scaffolded Lessons • Guided note-taking • Study guides • Modified homework • Differentiated pre-typed class notes and example problems • Flexible small group instruction • Use of alternate assessments • Modelings English Language Learners (ELLs): • Pair visual prompts with verbal presentations • Provide repetition and practice • Model skills/techniques to be mastered • Extended time • Assign a peer helper in the class setting • Provide access to a computer • Front load vocabulary • Dictionaries	Special Education • Individualized Education Plans (IEPs) • Exemplars of varied performance levels • Multi-media presentations • Manipulatives • Scaffolded Lessons • Guided note-taking • Study guides • Modified homework • Differentiated pre-typed class notes and example problems • Flexible small group instruction • Use of alternate assessments • Modelings English Language Learners (ELLs): • Pair visual prompts with verbal presentations • Provide repetition and practice • Model skills/techniques to be mastered • Extended time • Assign a peer helper in the class setting • Provide access to a computer • Front load vocabulary • Dictionaries	Special Education • Individualized Education Plans (IEPs) • Exemplars of varied performance levels • Multi-media presentations • Manipulatives • Scaffolded Lessons • Guided note-taking • Study guides • Modified homework • Differentiated pre-typed class notes and example problems • Flexible small group instruction • Use of alternate assessments • Modelings English Language Learners (ELLs): • Pair visual prompts with verbal presentations • Provide repetition and practice • Model skills/techniques to be mastered • Extended time • Assign a peer helper in the class setting • Provide access to a computer • Front load vocabulary • Dictionaries

	● Mnemonic devices ● Visual aids ● Provide notes to students as needed in native language ● Cultural responsiveness ● Present information in a variety of ways (notes, guided notes, video clips, images, diagrams, graphic organizers, stations) ● Group students with others of different learning levels and abilities. ● Non-verbal assessments Students At-Risk (BSI) ● Interactive maps ● Graphic organizers ● Use of technology for class assignments and homework ● Provide opportunities for students to discuss material verbally and also periods of quiet reflection. ● Highlighted and/or repeated directions Gifted and Talented (Advanced) Students: ● Allow students to pursue independent projects based on their individual interests ● Provide enrichment activities that include more advanced material	● Mnemonic devices ● Visual aids ● Provide notes to students as needed in native language ● Cultural responsiveness ● Present information in a variety of ways (notes, guided notes, video clips, images, diagrams, graphic organizers, stations) ● Group students with others of different learning levels and abilities. ● Non-verbal assessments Students At-Risk (BSI) ● Interactive maps ● Graphic organizers ● Use of technology for class assignments and homework ● Provide opportunities for students to discuss material verbally and also periods of quiet reflection. ● Highlighted and/or repeated directions Gifted and Talented (Advanced) Students: ● Allow students to pursue independent projects based on their individual interests ● Provide enrichment activities that include more advanced material	● Mnemonic devices ● Visual aids ● Provide notes to students as needed in native language ● Cultural responsiveness ● Present information in a variety of ways (notes, guided notes, video clips, images, diagrams, graphic organizers, stations) ● Group students with others of different learning levels and abilities. ● Non-verbal assessments Students At-Risk (BSI) ● Interactive maps ● Graphic organizers ● Use of technology for class assignments and homework ● Provide opportunities for students to discuss material verbally and also periods of quiet reflection. ● Highlighted and/or repeated directions Gifted and Talented (Advanced) Students: ● Allow students to pursue independent projects based on their individual interests ● Provide enrichment activities that include more advanced material
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	● Allow team-teaching opportunities and collaboration ● Set individual goals ● Conduct research and provide presentation of appropriate topics ● Design surveys to generate and analyze data to be used in discussion. ● Higher-level questioning techniques ● Provide assessments at a higher level of thinking 504 Plans ● Preferential seating ● Extended time on tests and assignments ● Reduced homework or classwork ● Verbal, visual, or technology aids ● Modified textbooks or audio-video materials ● Oral assessments ● Highlighted and/or repeated directions	● Allow team-teaching opportunities and collaboration ● Set individual goals ● Conduct research and provide presentation of appropriate topics ● Design surveys to generate and analyze data to be used in discussion. ● Higher-level questioning techniques ● Provide assessments at a higher level of thinking 504 Plans ● Preferential seating ● Extended time on tests and assignments ● Reduced homework or classwork ● Verbal, visual, or technology aids ● Modified textbooks or audio-video materials ● Oral assessments ● Highlighted and/or repeated directions	● Allow team-teaching opportunities and collaboration ● Set individual goals ● Conduct research and provide presentation of appropriate topics ● Design surveys to generate and analyze data to be used in discussion. ● Higher-level questioning techniques ● Provide assessments at a higher level of thinking 504 Plans ● Preferential seating ● Extended time on tests and assignments ● Reduced homework or classwork ● Verbal, visual, or technology aids ● Modified textbooks or audio-video materials ● Oral assessments ● Highlighted and/or repeated directions
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