

Washington Township Public Schools

COURSE OF STUDY – CURRICULUM GUIDE

Course: Everyday Mathematics (EDM 4) CCSS 2014

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Description: The Everyday Mathematics curriculum is structured as an ongoing spiral to provide multiple exposure to topics, and frequent opportunities to review and practice skills. A concept or skill that is informally introduced in kindergarten, for example, will be revisited, developed and extended numerous times, and in a variety of contexts, throughout the year and into later grades.

- **Real-Life Problem Solving** - Everyday Mathematics emphasizes the application of mathematics to real world situations. Numbers, skills and mathematical concepts are not presented in isolation, but are linked to situations and contexts that are relevant to everyday lives. The curriculum also provides numerous suggestions for incorporating mathematics into daily classroom routines and other subject areas.
- **Balanced Instruction** - Each Everyday Mathematics lesson includes time for whole-group instruction as well as small group, partner or individual activities. These activities balance teacher-directed instruction with opportunities for open response and reengagement lessons, hands-on explorations, long-term projects and on-going practice.
- **Technology Component** - Everyday Mathematics includes integrated virtual manipulatives for whole-class demonstrations and individual student explorations. Embedded in this program are digital tools to allow the teacher to monitor student progress through assignments and assessments. Digital games also provide challenges for students.
- **Multiple Methods for Basic Skills Practice** - Everyday Mathematics provides numerous methods for basic skills practice and review. These include written and choral fact drills, mental math outlines, practice with fact triangles (flash cards of fact families), daily sets of review problems called math boxes, homework, timed tests and a wide variety of math games.

Jack McGee: *Interim Assistant Superintendent for Curriculum & Instruction*

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Written: August 2015

Revised: _____

BOE Approval: _____

DEMONSTRABLE PROFICIENCIES

COURSE TITLE: Everyday Mathematics (EDM 4) CCSS 2014

I. CLASSWORK REQUIREMENTS

A. Only for MS and HS

II. ATTITUDE & BEHAVIOR

A.

III. COURSE OBJECTIVES/OVERVIEW

A. COURSE CONTENT

B. SKILLS

C. APPRECIATION OF CONCEPTS

IV. ATTENDANCE

Attendance: Refer to Board of Education Policy

V. GRADING PROCEDURES

A.

MAJOR UNITS OF STUDY

Course Title: Everyday Mathematics (EDM 4) CCSS 2014

- I. Counting**
- II. Introducing Addition**
- III. Number Stories**
- IV. Length and Addition Facts**
- V. Place Value and Comparisons**
- VI. Addition Fact Strategies**
- VII. Subtraction Fact Strategies and Attributes of Shapes**
- VIII. Geometry**
- IX. Two-Digit Addition and Subtraction and Review**

UNIT OVERVIEW

Course Title: Everyday Mathematics (EDM 4) CCSS 2014

Unit #: UNIT 1 OVERVIEW

Unit Title: Counting

Unit Description and Objectives:

In this unit, children work in an active, collaborative environment to learn both mathematics content and mathematical practices. Children’s learning will focus on three clusters of the Common Core’s content standards, as well in-depth work on two of the Mathematical Practices.

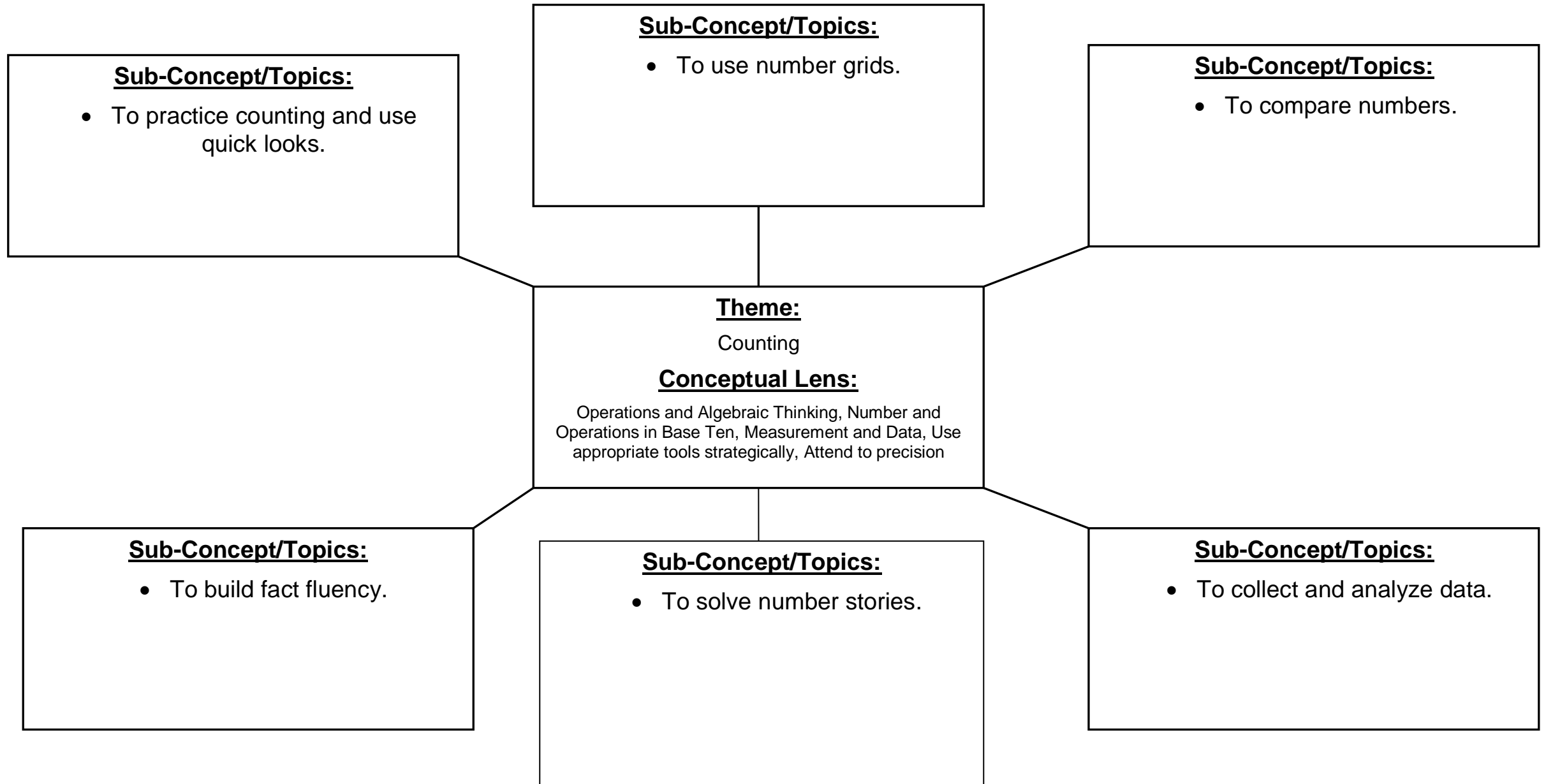
Routines are introduced that will be followed both throughout the school year and in later grades. These routines provide classroom structure for teachers and children to begin working on a number of rich mathematical activities together.

Essential Questions and Enduring Understandings:

Essential Questions:	<u>Enduring Understandings/Generalizations</u> Students will understand that:	Guiding Questions
1. How can we use addition and subtraction within 20 to solve word problems?	1. Solving simple number stories involving addition and subtraction includes taking from, putting together, taking apart, and comparing with unknowns in all positions.	1.1 How can you count collections of objects?
2. How can we relate counting to addition and subtraction?	2. Finding a new number can involve counting up and back a number of spaces from a given number on a number grid or number line.	1.2 How can you use the number line to count and compare numbers?
3. How can we add and subtract within 20 demonstrating fluency for addition and subtraction within 10?	3. Using addition and subtraction to solve simple number stories can involve counting on, making ten, decomposing a number leading to a ten, using the relationship between addition and subtraction and creating equivalent but easier or known sums.	1.3 How can tools help you count and use reasoning when exploring attributes of shapes?
4. How can we count to 120 starting at any number less than 120?	4. Counting by ones can be demonstrated on a number grid, on a number line, by using objects and by	1.4 How can you estimate and count collections of counters? How can I use other’s strategies to count

	creating tally marks.	collections of counters?
5. How can we compare two two-digit numbers based on meanings of the tens and ones digits?	5. Given two numbers, these numbers are related as one number being larger, equal or smaller to the other number.	1.5 How can you use a number line to tell and solve number stories?
6. How can we organized, represent, and interpret data with up to three categories?	6. Data points on a tally chart represent a given number for a specified category.	1.6 How can you compare and order numbers?
		1.7 How can you use tally marks to represent data? Demonstrate how to count by 1's and 5's.
		1.8 How can you represent and explain data you counted in a tally chart?
		1.9 How can you use pattern blocks, base-10 blocks and geoboards to understand shapes and attributes?
		1.10 How can telling and solving number stories help you add and subtract?
		1.11 How can you use the number grid to help you add and subtract?

UNIT GRAPHIC ORGANIZER



CURRICULUM UNIT PLAN

Course Title/Grade: Everyday Mathematics (EDM 4) CCSS (2014)

Unit Number/Title: Unit 1 / Counting

Operations and Algebraic Thinking, Number and Operations in Base Ten, Measurement and Data, Use appropriate tools strategically, Attend to precision.

Conceptual Lens: _____

Appropriate Time Allocation (# of Days): 17 days (includes game days)

Primary Core Content Standards referenced With Cumulative Progress Indicators			
Add and subtract within 20. .	Extend the counting sequence	Represent and interpret data.	Use appropriate tools strategically.
Attend to precision.			

<u>Topics/Concepts</u> (Incl. time / # days per topic)	<u>Critical Content</u> (Students Will Know:)	<u>Skill Objectives</u> (Students Will Be Able To:)	<u>Instructional/Learning Activities & Interdisciplinary Connections</u>	<u>Instructional Resources</u>	<u>Technology & 21st C Skills Integration (Specify)</u>	<u>NJCCCS w/ CPI Reference</u>	<u>Evaluation/ Assessment:</u>
<p>In this unit, children work in an active, collaborative environment to learn both mathematics content and mathematical practices. Children’s learning will focus on three clusters of the Common Core’s content standards, as well in-depth work on two of the Mathematical Practices.</p> <ul style="list-style-type: none"> • Add and subtract within 20 • Extend the counting sequence • Represent and 	<ul style="list-style-type: none"> • Solve simple number stories involving addition and subtraction within ten. • Find a new number by counting up and back on a number line or grid. • Count up by ones on a number grid or number line and count a number of objects including tally marks. • Tell which of two numbers is larger, using a 	<ul style="list-style-type: none"> • Solve word problems by adding to, taking from, putting together, taking apart, and comparing with unknowns in all positions. • Find a new number by counting up and back a number of spaces from a given number on a number grid or number line. • Solve simple number stories by counting on, making ten, decomposing a number leading to a ten, using the relationship between addition and subtraction and creating 	<p><i>Literature Link</i></p> <ul style="list-style-type: none"> • 1.5 Children practice counting while reading <u>The Water Hole</u>. See Activity Card #7. • 1.9 Children practice drawing and naming shapes while reading <u>Color Zoo</u>. See Activity Card #12. • 1.10 Children tell simple counting stories while reading <u>How Many Snails: A Counting Book</u>. <p><i>Science</i></p> <ul style="list-style-type: none"> • Children follow the daily Temperature (TM 26-31) and Weather (TM 22-25) Routines. <p>Math Stations</p>	<ul style="list-style-type: none"> • Unit 1 Counting TM 2-123 • EM Journal • Games • Tool Kit with Manipulatives • Class Number Line • Class Number Grid • Literature Link Books 	<ul style="list-style-type: none"> • Everyday Math Online Web http://www.everydaymath.com • Shape Sorter http://www.primarygames.com/puzzles/match_up/shape_match/start.htm • Pattern Mania http://www.primarygames.com/patterns/start.htm • Number Cracker http://www.funbrain.com/cracker/index.html • What Time Is It? http://www.primarygames.com/time/start.htm • Take It Away http://www.primarygames.com/takeaway/start.htm • The Number Game http://www.primarygames.com/Number%20Game/start.htm • What Comes Next? http://www.learningplanet.com/ac/v123order.asp • Squigly’s Apples http://www.primarygames.com/squigly/start.htm 	<p>Standards for Mathematical Content</p> <p>1.OA.1 1.OA.5 1.OA.6 1.NBT.1 1.NBT.3 1.MD.4</p> <p>Standards for Mathematical Practice</p> <p>SMP5 SMP6</p>	<p><u>Formative Assessments:</u></p> <p>Progress Check</p> <ul style="list-style-type: none"> • Self-Assessment • Unit Assessment • Unit Challenge • Open Response Assessment <p>Timed Tests (Facts to 10) Pre- and Post- Tests administered at the beginning and end of each Marking Period.</p> <ul style="list-style-type: none"> • Addition • Subtraction <p><u>Summative Assessment(s)</u></p> <ul style="list-style-type: none"> • Oral and slate assessments through Mental Math and Fluency, games, calendar routine • Fact Practice Activities • Home Links

<u>Topics/Concepts</u> (Incl. time / # days per topic)	<u>Critical Content</u> (Students Will Know:)	<u>Skill Objectives</u> (Students Will Be Able To:)	<u>Instructional/Learning Activities & Interdisciplinary Connections</u>	<u>Instructional Resources</u>	<u>Technology & 21st C Skills Integration (Specify)</u>	<u>NJCCCS w/ CPI Reference</u>	<u>Evaluation/ Assessment:</u>
<p>interpret data.</p> <ul style="list-style-type: none"> Use appropriate tools strategically. Attend to precision. 	<p>number line if necessary.</p> <ul style="list-style-type: none"> Read the number of data points in each category of a tally chart. 	<p>equivalent but easier or known sums.</p> <ul style="list-style-type: none"> Read and write numerals to represent objects. Compare two two-digit numbers based on the meanings of the tens and ones digits using comparison symbols. Organize, represent and interpret data by asking and answering questions. 			<ul style="list-style-type: none"> Math Baseball http://www.funbrain.com/math/index.html Spending Spree http://www.primarygames.com/Spending%20Spree/start.htm One False Move http://www.funbrain.com/ofm/index.html Base Ten Fun http://www.abcya.com/base_ten_fun.htm Place Value Crocodile http://mathgames4children.com/function-board-games/2nd-grade/crocs/place-value-crocodile-board-game-grade-1-game.html Place Value-Shark Numbers http://www.ictgames.com/sharkNumbers/sharkNumbers_v5.html <p>ENRICHMENT</p> <ul style="list-style-type: none"> Base Ten Count http://edbydesign.com/btcount.html <p>FACT PRACTICE WEBSITES: T=Teacher, S=Student</p> <p>www.worksheets.com (T) www.worksheetfun.com (T)</p> <p>www.superteacherworksheets.com (T)</p> <p>www.mathfactcafe.com (T)</p> <p>www.multiplication.com (S)</p> <p>www.gamequarium.com (S)</p> <p>www.coolmath.com (S)</p> <p>www.factmonster.com (S)</p> <p>www.freeology.com (T)</p>		<ul style="list-style-type: none"> Exit Slips

<u>Topics/Concepts</u> (Incl. time / # days per topic)	<u>Critical Content</u> (Students Will Know:)	<u>Skill Objectives</u> (Students Will Be Able To:)	<u>Instructional/Learning</u> <u>Activities & Interdisciplinary</u> <u>Connections</u>	<u>Instructional</u> <u>Resources</u>	<u>Technology & 21st C Skills</u> <u>Integration (Specify)</u>	<u>NJCCCS w/</u> <u>CPI Reference</u>	<u>Evaluation/ Assessment:</u>
					www.funbrain.com (S) www.AAAMath.com (S) www.bigbrainz.com (T & S) www.mathplayground.com (S) www.abcteach.com (T) www.kidscarnival.com (S)		

Unit Modifications for Special Population Students:

Struggling Learners	Gifted and Talented Students (Challenge Activities)	English Language Learners	Special Education Students
1.1 Explore dice-dot patterns.	1.1 Make dice.	1.1 Introduce the word “dot” and show in various ways.	1.1 Explore dice-dot patterns.
1.2 Order numbers.	1.2 Number Detective	1.2 Use visuals to introduce the terms more / greater than and less than.	1.2 Order numbers.
1.3 Make number collections.	1.3 Make counting books.	1.3 Role play different ways for partners to work together both verbally and non-verbally.	1.3 Make number collections.
1.5 Pass the basket of pennies.	1.5 Practice counting – zip down to zero.	1.5 Explain how many animals have different names and use in number stories.	1.5 Pass the basket of pennies.
1.6 Compare cube counts.	1.6 Flipping and comparing.	1.6 Use short and easy sentences to compare numbers when playing Top-It.	1.6 Compare cube counts.
1.7 Whisper and shout counting by 5’s.	1.7 Tallying pennies.	1.7 Use visuals to explain words alike, like and different.	1.7 Whisper and shout counting by 5’s.
1.8 Answer questions about the weather.	1.8 Play Rock, Paper, Scissors, Pencil.	1.8 Show examples of rocks, paper and scissors with hand gestures.	1.8 Answer questions about the weather.
1.9 Match color and shape words to pattern blocks.	1.9 Creating Designs.	1.9 Use drama and visuals to explain Rules for Explorations.	1.9 Match color and shape words to pattern blocks.
1.10 Tell simple counting stories.	1.10 Dice Number Stories.	1.10 Accompany number stories with role play, pictures and objects.	1.10 Tell simple counting stories.
1.11 Play Bunny Hop.	1.11 Counting Larger Numbers.	1.11 Practice directional words by thinking aloud and modeling hopping forward and backward and landing on a number grid.	1.11 Play Bunny Hop.

UNIT OVERVIEW

Course Title: Everyday Mathematics (EDM 4) CCSS 2014

Unit #: UNIT 2 OVERVIEW

Unit Title: Introducing Addition

Unit Description and Objectives:

In this unit, children work with addition and use it to model and solve number stories. Children’s learning focuses on three clusters of the Common Core’s content standards, as well as in-depth work on two of the Mathematical Standards.

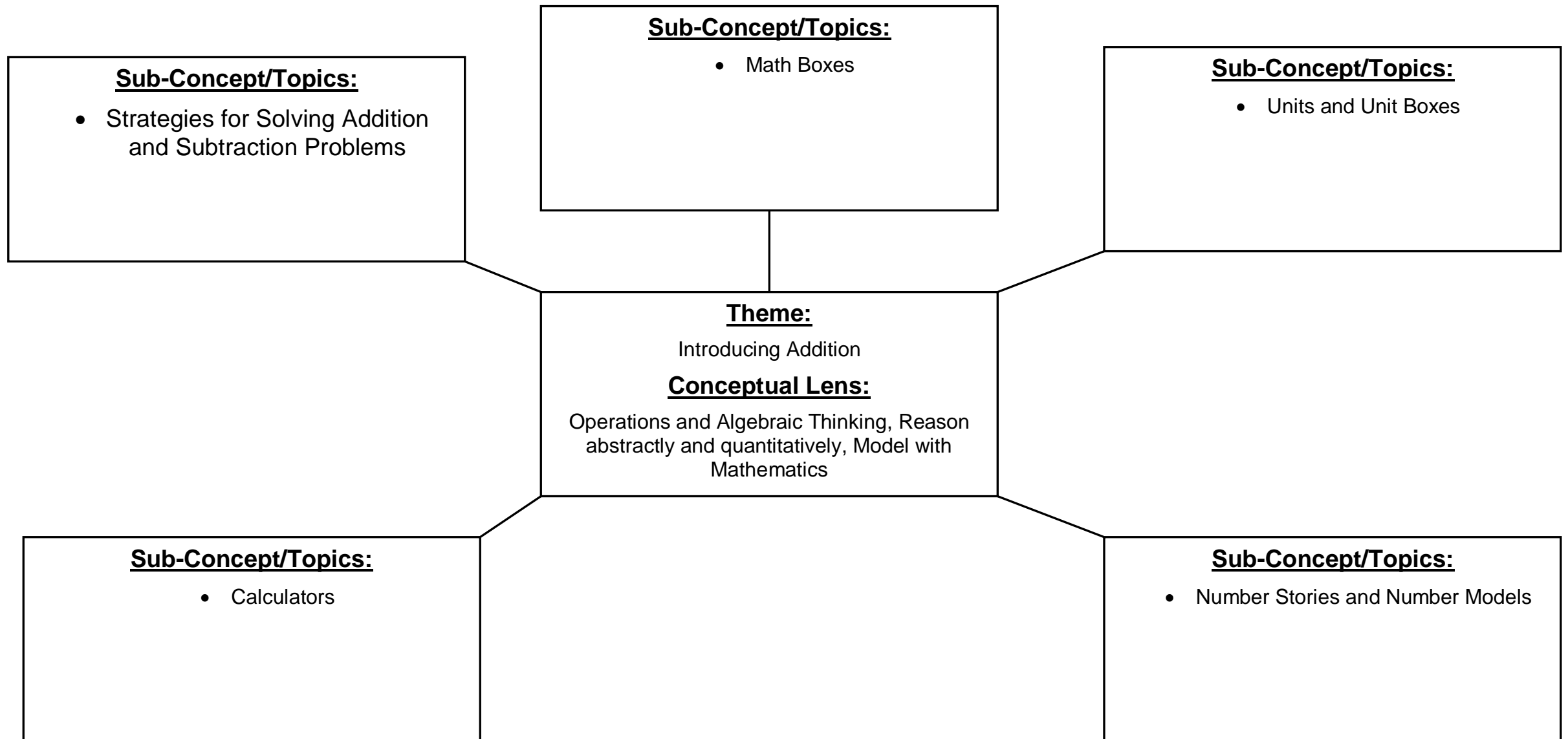
Routines are introduced that will be followed both throughout the school year and in later grades. These routines provide classroom structure for teachers and children to begin working on a number of rich mathematical activities together.

Essential Questions and Enduring Understandings:

Essential Questions:	<u>Enduring Understandings/Generalizations</u> Students will understand that:	Guiding Questions
1. How can we use addition and subtraction within 20 to solve word problems?	1. solving and interpreting number models for change-to-more and change-to-less within 10 includes adding to, taking from, putting together, taking apart, and comparing with unknowns in all positions.	2.1 How can you use the Strategy Wall and the counting-on strategy and the turn-around rule for addition?
2. How can we apply properties of operations as strategies to add and subtract?	2. observing that adding the same two numbers in a different order results in the same sum.	2.2 How can you decompose numbers and identify pairs that add to 10 to be able to add and subtract within 10?
3. How can we relate counting to addition and subtraction?	3. using a counting strategy to find the sum of two numbers.	2.3 What pairs of numbers add to ten?
4. How can we add and subtract within 20, demonstrating fluency for addition and subtraction within 10?	4. adding and subtracting within ten includes finding pairs of numbers that add to ten involve counting on, making ten, decomposing a number leading to a ten, using the relationship between addition and	2.4 What pairs of numbers add to ten? How can you use a tally chart to collect data?

	subtraction and creating equivalent but easier or known sums.	
5. How can we determine the unknown numbers in an addition and subtraction equation relating three whole numbers?	5. representing number stories using number models that include a symbol for the unknown value.	2.5 What are all of the ways to make a sum of ten?
6. How can we count to 120, starting at any number less than 120?	6. counting and representing a number of objects less than 20 by reading and writing numerals that represent a number of objects.	2.6 Can you identify Quick Looks with ten frames? Can you use the addition strategy of counting on?
7. How can we organize, represent, and interpret data with up to three categories?	7. answering simple questions about a tally chart using the total number of data points in a category and related to the data points in other categories.	2.7 How can you use unit boxes to label objects?
		2.8 How can change-to-more diagrams help you solve number stories?
		2.9 How can change-to-less diagrams help you solve number stories?
		2.10 How can you use number models to help you with addition and subtraction?
		2.11 How can you find unknown numbers in addition and subtraction models?

UNIT GRAPHIC ORGANIZER



CURRICULUM UNIT PLAN

Course Title/Grade: Everyday Mathematics (EDM 4) CCSS (2014)

Unit Number/Title: Unit 2 – Introducing Addition

Conceptual Lens: Operations and Algebraic Thinking, Reason abstractly and quantitatively, Model with Mathematics

Appropriate Time Allocation (# of Days): 16 days (includes game days)

Primary Core Content Standards referenced With Cumulative Progress Indicators			
Represent and solve problems involving addition and subtraction.	Work with addition and subtraction equations.	Add and subtract within 20.	Reason abstractly and quantitatively.
Model with mathematics.			

Topics/Concepts (Incl. time / # days per topic)	Critical Content (Students Will Know:)	Skill Objectives (Students Will Be Able To:)	Instructional/Learning Activities & Interdisciplinary Connections	Instructional Resources	Technology & 21st C Skills Integration (Specify)	NJCCCS w/ CPI Reference	Evaluation/ Assessment:
<p>In this unit, children work with addition and use it to model and solve number stories. Children’s learning focuses on three clusters of the Common Core’s content standards, as well as in-depth work on two of the Mathematical Standards.</p> <ul style="list-style-type: none"> Represent and solve problems involving addition and subtraction Work with addition and subtraction equations 	<ul style="list-style-type: none"> Solve and interpret number models for change-to-more and change-to-less stories within 10. Observe that adding the same two numbers in a different order results in the same sum. Use a counting strategy to find the sum of two numbers. Add and subtract within 10, including 	<ul style="list-style-type: none"> Solve change-to-problems within 10 by adding to, taking from, putting together, taking apart, and comparing with unknowns in all positions. Adding the same two numbers in a different order results in the same sum. Using a counting strategy to find the sum of two numbers. Finding pairs of numbers that add to ten involve counting on, making ten, decomposing a number leading to a ten, using the relationship 	<p><i>Literature Link</i></p> <ul style="list-style-type: none"> 2.11 Children write number models to represent illustrations while reading <u>How Many Snails: A Counting Book</u> <p><i>Science</i></p> <ul style="list-style-type: none"> Children follow the daily Temperature (TM 26-31) and Weather (TM 22-25) Routines. <p>Math Stations</p>	<ul style="list-style-type: none"> Unit 2 Introducing Addition TM 124-209 EM Journal Games Tool Kit with Manipulatives Class Number Line Class Number Grid Literature Link Books 	<ul style="list-style-type: none"> Everyday Math Online Web http://www.everydaymath.com Shape Sorter http://www.primarygames.com/puzzles/match_up/shape_match/start.htm Pattern Mania http://www.primarygames.com/patterns/start.htm Number Cracker http://www.funbrain.com/cracker/index.html What Time Is It? http://www.primarygames.com/time/start.htm Take It Away http://www.primarygames.com/takeaway/start.htm The Number Game http://www.primarygames.com/Number%20Game/start.htm What Comes Next? http://www.learningplanet.com/act/123order.asp Squigly’s Apples 	<p>Standards for Mathematical Content</p> <p>1.OA.1 1.OA.3 1.OA.5 1.OA.6 1.OA.8 1.NBT.1 1.MD.4</p> <p>Standards for Mathematical Practice</p> <p>SMP2 SMP4</p>	<p>Formative Assessments:</p> <p>Progress Check</p> <ul style="list-style-type: none"> Self-Assessment Unit Assessment Unit Challenge Open Response Assessment <p>Timed Tests (Facts to 10) Pre- and Post- Tests administered at the beginning and end of each Marking Period.</p> <ul style="list-style-type: none"> Addition Subtraction <p>Summative Assessment(s)</p> <ul style="list-style-type: none"> Oral and slate assessments through Mental Math and Fluency, games, calendar routine Fact Practice Activities Home Links Exit Slips

Topics/Concepts (Incl. time / # days per topic)	Critical Content (Students Will Know:)	Skill Objectives (Students Will Be Able To:)	Instructional/Learning Activities & Interdisciplinary Connections	Instructional Resources	Technology & 21 st C Skills Integration (Specify)	NJCCCS w/ CPI Reference	Evaluation/ Assessment:
<ul style="list-style-type: none"> • Add and Subtract within 20 • Reason abstractly and quantitatively • Model with mathematics 	<p>finding pairs of numbers that add to 10.</p> <ul style="list-style-type: none"> • Represent number stories using number models that include a symbol for the unknown value. • Count and represent a number of objects less than 20 with a written numeral. • Answer simple questions about a tally chart. 	<p>between addition and subtraction and creating equivalent but easier or known sums.</p> <ul style="list-style-type: none"> • Including a symbol for the unknown value in number models. • Counting objects less than 20 by reading and writing numerals that represent a number of objects. • Answering simple questions about a tally chart using the total number of data points in a category and related to the data points in other categories. 			<p>http://www.primarygames.com/squigly/start.htm</p> <ul style="list-style-type: none"> • Math Baseball http://www.funbrain.com/math/index.html • Spending Spree http://www.primarygames.com/Spending%20Spree/start.htm • One False Move http://www.funbrain.com/ofm/index.html • Base Ten Fun http://www.abcya.com/base_ten_fun.htm • Place Value Crocodile http://mathgames4children.com/fun-board-games/2nd-grade/crocs/place-value-crocodile-board-game-grade-1-game.html • Place Value-Shark Numbers http://www.ictgames.com/sharkNumbers/sharkNumbers_v5.html <p>ENRICHMENT</p> <ul style="list-style-type: none"> • Base Ten Count http://edbydesign.com/btcou nt.html <p>FACT PRACTICE WEBSITES: T=Teacher, S=Student</p> <p>www.worksheets.com (T) www.worksheetfun.com (T) www.superteacherworksheets.com (T) www.mathfactcafe.com (T) www.multiplication.com (S) www.gamequarium.com (S) www.coolmath.com (S) www.factmonster.com (S)</p>		

Topics/Concepts (Incl. time / # days per topic)	Critical Content (Students Will Know:)	Skill Objectives (Students Will Be Able To:)	Instructional/Learning Activities & Interdisciplinary Connections	Instructional Resources	Technology & 21st C Skills Integration (Specify)	NJCCCS w/ CPI Reference	Evaluation/ Assessment:
					www.freeology.com (T) www.funbrain.com (S) www.AAAmath.com (S) www.bigbrainz.com (T & S) www.mathplayground.com (S) www.abcteach.com (T) www.kidscarnival.com (S)		

Unit Modifications for Special Population Students:

Struggling Learners	Gifted and Talented Students (Challenge Activities)	English Language Learners	Special Education Students
2.1 Hopping to the Roll.	2.1 More Counting On.	2.1 Role play the concept of “turn around” to teach as a term for switching places.	2.1 Hoping to the Roll.
2.2 Quick Looks with Dot Patterns.	2.2 Combinations of 10 pennies.	2.2 Model what one-fisted and two-fisted means.	2.2 Quick Looks with Dot Patterns.
2.3 Passing Pennies.	2.3 Sharing 10 Grapes.	2.3 Physical model what it means to be “on top of” and “under.”	2.3 Passing Pennies.
2.4 Roll and Take Away.	2.4 Subtracting to Solve Number Stories.	2.4 Use the terms same and different to help students understand “difference.”	2.4 Roll and Take Away.
2.6 Playing a Top-It Variation.	2.6 Addition Memory.	2.6 Introduce the frame “I saw ...” to explain strategies.	2.6 Playing a Top-It Variation.
2.7 Labeling Items in a Mystery Bag.	2.7 Making Unit Books	2.7 Name common object and introduce the prompt, “The unit we are counting is ...”	2.7 Labeling Items in a Mystery Bag.
2.8 Representing Number Stories with Craft Sticks.	2.8 More Change-to-More Number Stories.	2.8 Use word cards “Start” “Change” “End” with Penny Drop Addition activity to introduce these words.	2.8 Representing Number Stories with Craft Sticks.
2.9 Ice Cubes in the Cup.	2.9 More Change-to-Less Number Stories.	2.9 Use Total Physical Response Activities to introduce the terms “knock over” and “standing.”	2.9 Ice Cubes in the Cup.
2.10 Change-to-More Diagram Practice.	2.10 Whose Number Is This?	2.10 Introduce the term “model” by relating to other model displays.	2.10 Change-to-More Diagram Practice.
2.11 Modeling Stories	2.11 Mystery Number Challenge.	2.11 Help students understand number stories by using real-life scenarios.	2.11 Modeling Stories.

UNIT OVERVIEW

Course Title: Everyday Mathematics (EDM 4) CCSS (2014)

Unit #: UNIT 3 OVERVIEW

Unit Title: Number Stories

Unit Description and Objectives:

In this unit, children continue to use addition and subtraction to model and solve number stories. They also connect counting to addition and subtraction. Children’s learning will focus on five clusters of the Common Core’s content standards, as well as in-depth work on two of the Mathematical Practices.

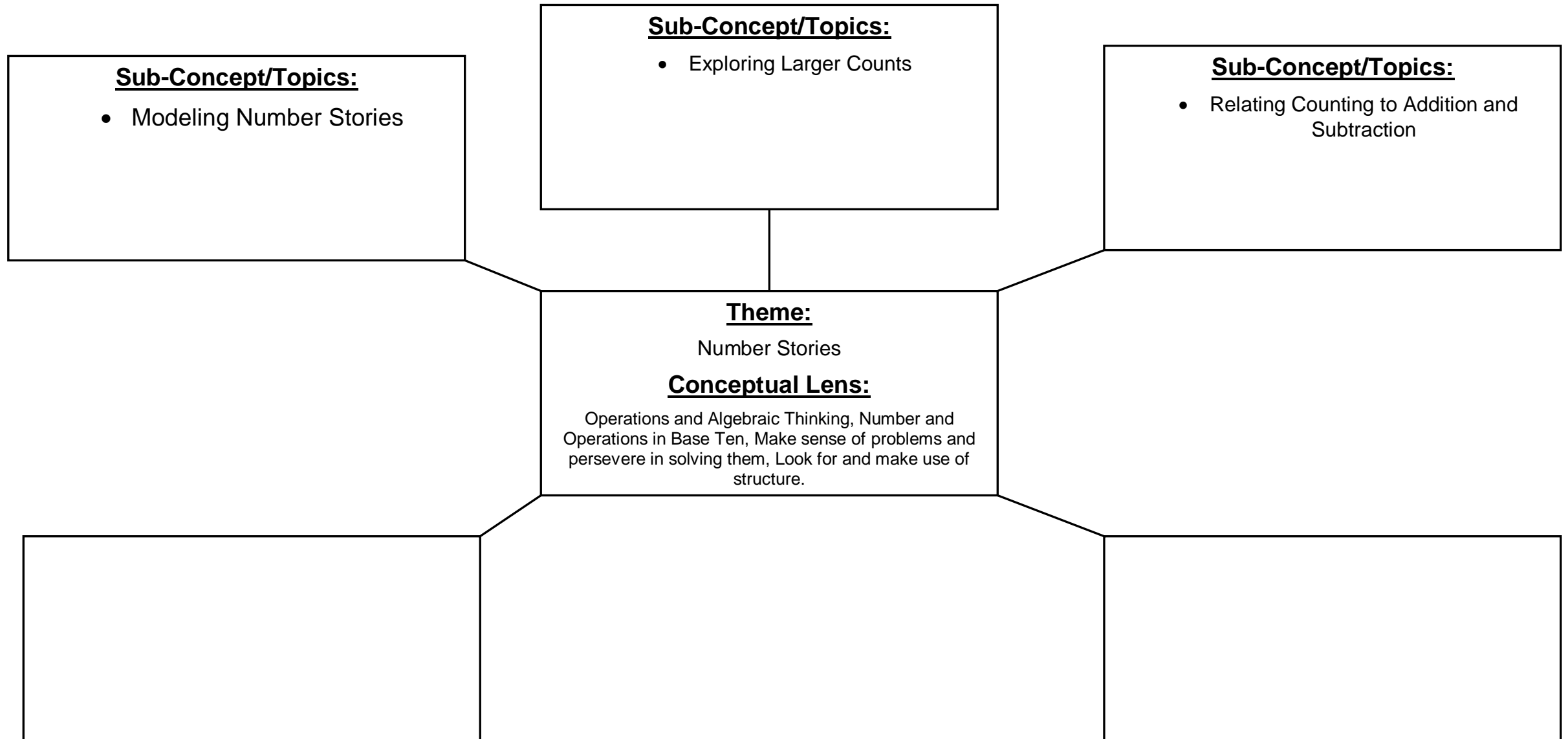
Routines are introduced that will be followed both throughout the school year and in later grades. These routines provide classroom structure for teachers and children to begin working on a number of rich mathematical activities together.

Essential Questions and Enduring Understandings:

Essential Questions:	<u>Enduring Understandings/Generalizations</u> Students will understand that:	Guiding Questions
1. How can we use addition and subtraction within 20 to solve word problems?	1. solving parts-and-total number stories involves adding to, taking from, putting together, taking apart, and comparing with unknowns in all positions.	3.1 How can we use diagrams and number models to represent and solve parts-and-total situations?
2. How can we apply properties of operations as strategies to add and subtract?	2. the turn-around rule allows the addends to switch positions in an addition problem (Commutative and Associative Properties).	3.2 How can we represent number stories with number models and solve them?
3. How can we relate counting to addition and subtraction?	3. counting on a number line or number grid helps solve addition and subtraction problems.	3.3 How can we count a large collection of objects?
4. How can we add and subtract within 20, demonstrating fluency for addition and subtraction within 10?	4. adding and subtracting to solve simple number stories can include counting on, making ten, decomposing a number leading to a ten, using the relationship between addition and subtraction and creating equivalent but easier or known sums.	3.4 How can we write about a number story?
5. How can we determine the unknown numbers in	5. finding the unknown number of hops between two	3.5 How can counting up and back on the number

an addition and subtraction equation relating three whole numbers?	numbers completes an addition or subtraction equation.	line help us solve addition and subtraction problems?
6. How can we count to 120, starting at any number less than 120?	6. skip counting can be used to add or subtract numbers on a number line and extend number patterns within 100 and read and write numerals to represent a group of objects.	3.6 How can we count up and back on a number line to add and subtract?
7. How can we compare two two-digit numbers based on meanings of the tens and ones digits?	7. compare the value of two numbers by using the symbols $>$ $<$ $=$.	3.7 How can we use the number line to solve equations with unknown numbers in different positions?
8. How can we order three objects by length?	8. they can identify the shortest and longest out of 2 or 3 objects.	3.8 What patterns can we find on a number grid?
		3.9 How can Frames-and Arrows diagrams help us solve addition and subtraction problems?
		3.10 How can we find the rule in Frames-and Arrows diagrams and then other unknown numbers?
		3.11 How can we program calculators to extend the counting sequence?

UNIT GRAPHIC ORGANIZER



CURRICULUM UNIT PLAN

Course Title/Grade: Everyday Mathematics (EDM 4) CCSS (2014)

Unit Number/Title: Unit 3 – Number Stories

Conceptual Lens: Operations and Algebraic Thinking, Number and Operations in Base Ten, Make sense of problems and persevere in solving them, Look for and make use of structure.

Appropriate Time Allocation (# of Days): 16 Days (includes game days)

Primary Core Content Standards referenced With Cumulative Progress Indicators			
Represent and solve problems involving addition and subtraction.	Understand and apply properties of operations and the relationship between addition and subtraction.	Add and Subtract within 20.	Work with addition and subtraction equations.
Extend the counting sequence.	Make sense of problems and persevere in solving them.	Look for and make use of structure.	

Topics/Concepts (Incl. time / # days per topic)	Critical Content (Students Will Know:)	Skill Objectives (Students Will Be Able To:)	Instructional/Learning Activities & Interdisciplinary Connections	Instructional Resources	Technology & 21 st C Skills Integration (Specify)	NJCCCS w/ CPI Reference	Evaluation/ Assessment:
<p>In this unit, children continue to use addition and subtraction to model and solve number stories. They also connect counting to addition and subtraction. Children's learning will focus on five clusters of the Common Core's content standards, as well as in-depth work on two of the Mathematical Practices.</p> <ul style="list-style-type: none"> Represent and solve problems involving addition and subtraction. Understand and apply properties of operations and the relationship between addition and subtraction. Add and Subtract within 20. Work with 	<ul style="list-style-type: none"> Solve parts-and-total number stories within 10. Explain what the turn-around rule means. Use counting on a number line or number grid to solve addition and subtraction problems. Add and subtract on a number line to solve simple number stories and extend number patterns. Find the unknown number of 	<ul style="list-style-type: none"> Solve parts and total number stories by adding to, taking from, putting together, taking apart, and comparing with unknowns in all positions. Apply properties of operations as strategies to add and subtract (Commutative Property of Addition, Associative Property of Addition) Relate counting to addition and subtraction using a number line or number grid. Solve simple number stories and extend number patterns by counting on, making ten, decomposing a number leading to a ten, using the relationship between addition and subtraction and creating equivalent but easier or known sums. Determine the unknown number (in any position) in an addition or subtraction equation relating the three whole numbers. 	<p><i>Literature Link</i></p> <ul style="list-style-type: none"> 3.1 Children write and illustrate number stories modeling the format of the book <u>Twelve Ways to Get to 11</u> See Activity Card 28 3.5 Children practice writing ways to ten after listening to the story <u>Two Ways to Count to Ten</u> See Activity Card 35 <p><i>Science</i></p> <ul style="list-style-type: none"> Children follow the daily Temperature (TM 26-31) and Weather (TM 22-25) Routines. <p>Math Stations</p>	<ul style="list-style-type: none"> Unit 3 Number Stories TM 210-295 EM Journal Games Tool Kit with Manipulatives Class Number Line Class Number Grid Literature 	<ul style="list-style-type: none"> Everyday Math Online Web http://www.everydaymath.com Shape Sorter http://www.primarygames.com/puzzles/match_up/shape_match/start.htm Pattern Mania http://www.primarygames.com/patterns/start.htm Number Cracker http://www.funbrain.com/cracker/index.html What Time Is It? http://www.primarygames.com/time/start.htm Take It Away http://www.primarygames.com/takeaway/start.htm The Number Game http://www.primarygames.com/Number%20Game/start.htm What Comes Next? http://www.learningplanet.com/act/123order.asp Squigly's Apples 	<p>Standards for Mathematical Content</p> <p>1.OA.1 1.OA.3 1.OA.5 1.OA.6 1.OA.8 1.NBT.1 1.NBT.3 1.MD.1</p> <p>Standards for Mathematical Practice</p> <p>SMP1 SMP7</p>	<p>Formative Assessments:</p> <p>Progress Check</p> <ul style="list-style-type: none"> Self-Assessment Unit Assessment Unit Challenge Open Response Assessment <p>Timed Tests (Facts to 10) Pre- and Post- Tests administered at the beginning and end of each Marking Period.</p> <ul style="list-style-type: none"> Addition Subtraction <p>Summative Assessment(s)</p> <ul style="list-style-type: none"> Oral and slate assessments through Mental Math and Fluency, games, calendar routine Fact Practice

Topics/Concepts (Incl. time / # days per topic)	Critical Content (Students Will Know:)	Skill Objectives (Students Will Be Able To:)	Instructional/Learning Activities & Interdisciplinary Connections	Instructional Resources	Technology & 21 st C Skills Integration (Specify)	NJCCCS w/ CPI Reference	Evaluation/ Assessment:
<p>addition and subtraction equations.</p> <ul style="list-style-type: none"> Extend the counting sequence. Make sense of problems and persevere in solving them. Look for and make use of structure. 	<p>hops between two numbers.</p> <ul style="list-style-type: none"> Use skip counting to add and subtract on a number line and extend number patterns within 100. Compare the value of two numbers less than 20. Identify the shortest and longest out of 2 or 3 objects. 	<ul style="list-style-type: none"> Skip count on a number line to add or subtract extending number patterns and read and write numerals to represent a number of objects. Use the symbols $>$ $=$ to compare two two-digit numbers based on meanings of the tens and ones digits. Order three objects by length; use a third object to indirectly compare the lengths of two other objects. 		<p>Link Books</p>	<p>http://www.primarygames.com/squigly/start.htm</p> <ul style="list-style-type: none"> Math Baseball http://www.funbrain.com/math/index.html Spending Spree http://www.primarygames.com/Spending%20Spree/start.htm One False Move http://www.funbrain.com/ofm/index.html Base Ten Fun http://www.abcya.com/base_ten_fun.htm Place Value Crocodile http://mathgames4children.com/fun-board-games/2nd-grade/crocs/place-value-crocodile-board-game-grade-1-game.html Place Value-Shark Numbers http://www.ictgames.com/sharkNumbers/sharkNumbers_v5.html <p>ENRICHMENT</p> <ul style="list-style-type: none"> Base Ten Count http://edbydesign.com/btcount.html <p>FACT PRACTICE WEBSITES: T=Teacher, S=Student</p> <p>www.worksheets.com (T) www.worksheetfun.com (T)</p> <p>www.superteacherworksheets.com (T)</p> <p>www.mathfactcafe.com (T)</p> <p>www.multiplication.com (S)</p> <p>www.gamequarium.com (S)</p> <p>www.coolmath.com (S)</p> <p>www.factmonster.com (S)</p> <p>www.freeology.com (T)</p>		<p>Activities</p> <ul style="list-style-type: none"> Home Links Exit Slips

<u>Topics/Concepts</u> (Incl. time / # days per topic)	<u>Critical Content</u> (Students Will Know:)	<u>Skill Objectives</u> (Students Will Be Able To:)	<u>Instructional/Learning Activities</u> & <u>Interdisciplinary Connections</u>	<u>Instructional</u> <u>Resources</u>	<u>Technology & 21st C Skills</u> <u>Integration (Specify)</u>	<u>NJCCCS w/</u> <u>CPI Reference</u>	<u>Evaluation/ Assessment:</u>
					www.funbrain.com (S) www.AAAMath.com (S) www.bigbrainz.com (T & S) www.mathplayground.com (S) www.abcteach.com (T) www.kidscarnival.com (S)		

Unit Modifications for Special Population Students:

Struggling Learners	Gifted and Talented Students (Challenge Activities)	English Language Learners	Special Education Students
3.1 Matching Numbers and Dots.	3.1 Filling in Parts-Total Diagrams with Unknowns.	3.1 Introduce the terms “total” “all together” and “in all” using gestures and objects.	3.1 Matching Numbers and Dots.
3.2 Acting Out Number Models.	3.2 Checking Out Library Books.	3.2 Use simple sentences accompanied with visuals when telling number stories.	3.2 Acting Out Number Models.
3.3 Playing Penny-Dice.	3.3 Matching Larger Pairs.	3.3 Introduce the terms “large” and “small” with identical objects.	3.3 Playing Penny-Dice.
3.5 Hopping Along the Floor Number Line.	3.5 Negative Number Line.	3.5 Use visuals and demonstrations to discuss the terms “hop” and “landing.”	3.5 Hopping Along the Floor Number Line.
3.6 Playing Bunny Hop.	3.6 Does Order Matter for Subtraction?	3.6 Put two sets of objects together to reinforce the concept of “in all” and “all together.”	3.6 Playing Bunny Hop.
3.7 Completing Number Lines.	3.7 Coloring Number Sentences.	3.7 Use children’s knowledge of “landing” to introduce “landing place” and “landing spot”. Use the sentence frame “We landed on ...”	3.7 Completing Number Lines.
3.8 Counting With Stops.	3.8 Exploring Counting by 3’s.	3.8 Introduce the words “column” and “row” using actions and gestures.	3.8 Counting With Stops.
3.9 Counting Patterns on the Number Line.	3.9 Creating and Solving Frames-and-Arrows Problems.	3.9 Introduce the rule by displaying pictures of traffic symbols.	3.9 Counting Patterns on the Number Line.
3.10 Counting Hops on the Number Line.	3.10 Creating Frames-and-Arrows from Skip Counts.	3.10 Explain the term “make-up your own” in the context and creating your own Frames-and-Arrows Problems.	3.10 Counting Hops on the Number Line.
3.11 Skip Counting With Number Lines.	3.11 Checking Frames-and-Arrows Problems with Calculators.	3.11 Explain calculator terms (start, count, counting up, counting back, by) using visuals.	3.11 Skip Counting With Number Lines.

UNIT OVERVIEW

Course Title: Everyday Mathematics (EDM 4) CCSS (2014)

Unit #: UNIT 4 OVERVIEW

Unit Title: Length and Addition Facts

Unit Description and Objectives:

In this unit, children measure lengths using nonstandard units and begin working on addition-fact fluency. Children’s learning will focus on five clusters of the Common Core’s content standards, as well as in-depth work on two of the Mathematical Purposes.

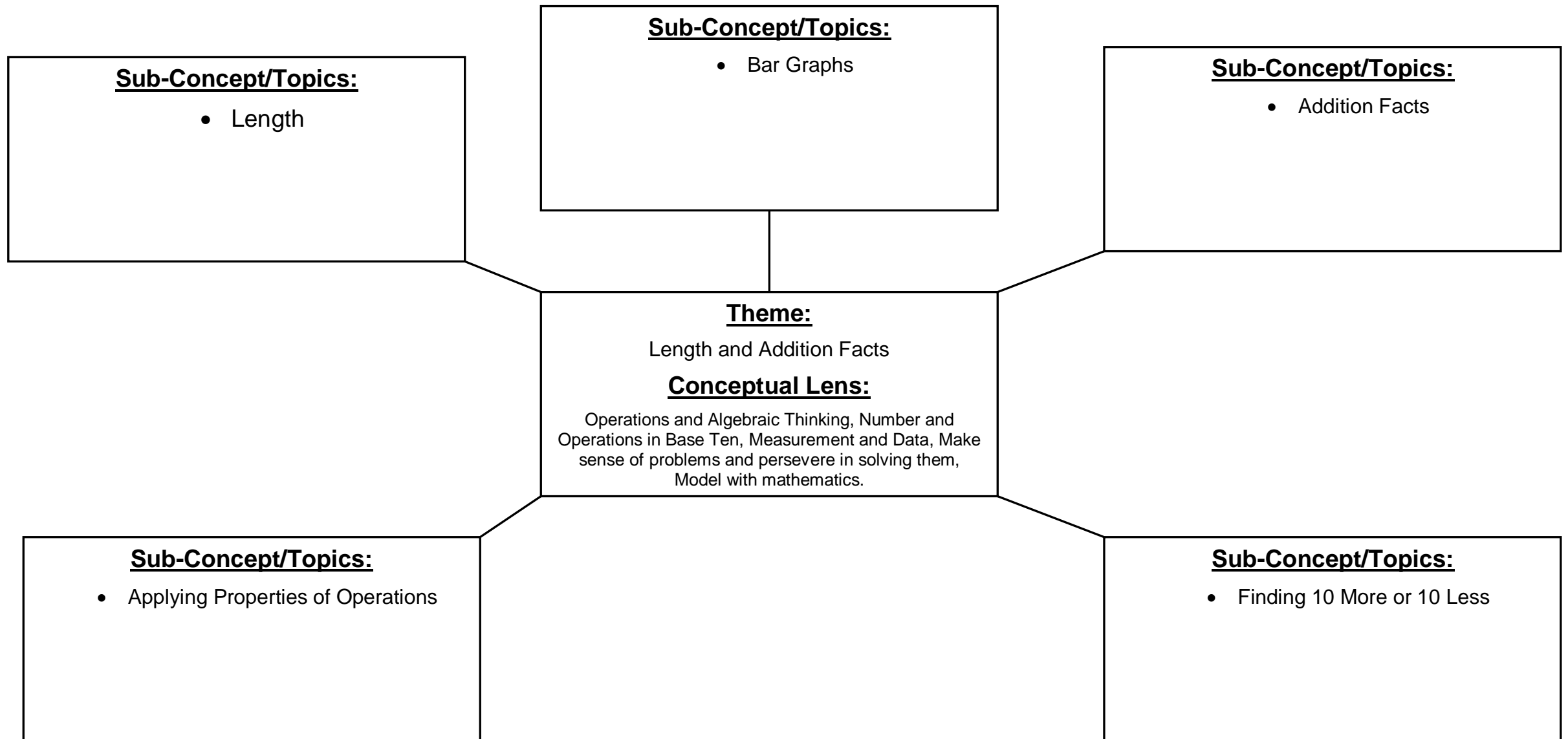
Routines are introduced that will be followed both throughout the school year and in later grades. These routines provide classroom structure for teachers and children to begin working on a number of rich mathematical activities together.

Essential Questions and Enduring Understandings:

Essential Questions:	<u>Enduring Understandings/Generalizations</u> Students will understand that:	Guiding Questions
1. How can we use addition and subtraction within 20 to solve word problems?	1. solving and writing number models for number stories within 10 can involve adding to, taking from, putting together, taking apart, and comparing with unknowns in all positions.	4.1 How can we discuss length as a measureable attribute and compare lengths of objects both directly and indirectly?
2. How can we solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20?	2. solving number stories with 3 addends by first finding a combination of 10 or a double from 2 of the addends by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	4.2 How can we iterate length units to measure the lengths of objects?
3. How can we apply properties of operations as strategies to add and subtract?	3. recognizing that a fact and its turn-around fact have the same sum and adding three numbers by first finding a combination of 10 or a double from 2 of the addends.	4.3 How can we estimate and measure the lengths of objects?
4. How can we add and subtract within 20,	4. finding and recoding facts within 10, including	4.4 How can we make an argument for which child

demonstrating fluency for addition and subtraction within 10?	combinations of 10 and doubles facts can include counting on, making ten, decomposing a number leading to a ten, using the relationship between addition and subtraction and creating equivalent but easier or known sums.	gives the best measurement?
5. How can we mentally find a number 10 more or 10 less from a given two-digit number without counting and explain our reasoning?	5. using a number grid to find 10 more or 10 less than a number can be done mentally and explained.	4.5 How can we collect data and display it on a tally chart? How can we create shapes with specified attributes?
6. How can we order three objects by length and indirectly compare two lengths using a third object?	6. they can order 3 objects by length and use a third object to compare 2 other objects by length.	4.6 How can we create a tally chart and bar graph and compare and ask questions about the data shown on each?
7. How can we express the length of an object as a whole number of length of units?	7. measuring the length of an object can be accomplished with paperclips or pencils or multiple copies of a shorter object end to end with no gaps or overlaps.	4.7 How can learning the doubles strategy help us add and subtract within 20.
8. How can we organize, represent, and interpret data with up to 3 categories?	8. they can answer questions about the total number of data points in one or several categories of a tally chart or bar graph.	4.8 How can we record addition facts we know and use combinations of 10 as a strategy for adding and subtracting within 20?
		4.9 What strategies can we develop for finding combinations of 10 to help add and subtract within 20?
		4.10 What properties of operations and other strategies can we apply to add three numbers?
		4.11 How can we find numbers ten more and ten less than a given number?

UNIT GRAPHIC ORGANIZER



CURRICULUM UNIT PLAN

Course Title/Grade: Everyday Mathematics (EDM 4) CCSS (2014)

Unit Number/Title: Unit 4 – Length and Addition Facts

Conceptual Lens: Operations and Algebraic Thinking, Number and Operations in Base Ten, Measurement and Data, Make sense of problems and persevere in solving them, Model with mathematics.

Appropriate Time Allocation (# of Days): 18 days (including game days)

Primary Core Content Standards referenced With Cumulative Progress Indicators			
Understand and apply properties of operations and the relationship between addition and subtraction.	Add and subtract within 20.	Use place value understanding and properties of operations to add and subtract.	Measure lengths indirectly and by iterating length units.
Represent and interpret data.	Make sense of problems and persevere in solving them.	Model with mathematics.	

Topics/Concepts (Incl. time / # days per topic)	Critical Content (Students Will Know:)	Skill Objectives (Students Will Be Able To:)	Instructional/Learning Activities & Interdisciplinary Connections	Instructional Resources	Technology & 21st C Skills Integration (Specify)	NJCCCS w/ CPI Reference	Evaluation/ Assessment:
<p>In this unit, children measure lengths using nonstandard units and begin working on addition-fact fluency. Children’s learning will focus on five clusters of the Common Core’s content standards, as well as in-depth work on two of the Mathematical Purposes.</p> <ul style="list-style-type: none"> Understand and apply properties of operations and the relationship between addition and subtraction. Add and subtract within 10. Use place value understanding and properties of operations to add 	<ul style="list-style-type: none"> Solve and write number models for number stories within 10. Solve number stories with three addends by first finding a combination of 10 or a double from two of the addends. Recognize that a fact and its turn-around fact have the same sum and add three numbers by first adding a combination of 10 or a double 	<ul style="list-style-type: none"> Solve word problems by adding to, taking from, putting together, taking apart, and comparing with unknowns in all positions. Solve word problems that call for addition of three whole numbers by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. Apply properties such as the Commutative and Associative to add and subtract. Add and subtract within 20 by counting on, making 	<p><i>Science</i></p> <ul style="list-style-type: none"> Children follow the daily Temperature (TM 26-31) and Weather (TM 22-25) Routines. <p>Math Stations</p>	<ul style="list-style-type: none"> Unit 4 Length and Addition Facts TM 296-381 EM Journal Games Tool Kit with Manipulatives Class Number Line Class Number Grid Literature 	<ul style="list-style-type: none"> Everyday Math Online Web http://www.everydaymath.com Shape Sorter http://www.primarygames.com/puzzles/match_up/shape_match/start.htm Pattern Mania http://www.primarygames.com/patterns/start.htm Number Cracker http://www.funbrain.com/cracker/index.html What Time Is It? http://www.primarygames.com/time/start.htm Take It Away http://www.primarygames.com/takeaway/start.htm The Number Game http://www.primarygames.com/Number%20Game/start.htm What Comes Next? http://www.learningplanet.com/act/123order.asp 	<p>Standards for Mathematical Content</p> <p>1.OA.1 1.OA.2 1.OA.3 1.OA.6 1.NBT.5 1.MD.1 1.MD.2 1.MD.4</p> <p>Standards for Mathematical Practice</p> <p>SMP1 SMP4</p>	<p>Formative Assessments:</p> <p>Progress Check</p> <ul style="list-style-type: none"> Self-Assessment Unit Assessment Unit Challenge Open Response Assessment <p>Timed Tests (Facts to 10) Pre- and Post- Tests administered at the beginning and end of each Marking Period.</p> <ul style="list-style-type: none"> Addition Subtraction <p>Summative Assessment(s)</p> <ul style="list-style-type: none"> Oral and slate assessments through Mental Math and Fluency, games, calendar routine

Topics/Concepts (Incl. time / # days per topic)	Critical Content (Students Will Know:)	Skill Objectives (Students Will Be Able To:)	Instructional/Learning Activities & Interdisciplinary Connections	Instructional Resources	Technology & 21 st C Skills Integration (Specify)	NJCCCS w/ CPI Reference	Evaluation/ Assessment:
<p>and subtract.</p> <ul style="list-style-type: none"> • Measure lengths indirectly and by iterating length units. • Represent and interpret data. • Make sense of problems and persevere in solving them. • Model with mathematics. 	<p>from two of the addends.</p> <ul style="list-style-type: none"> • Find and record facts within 10, including combinations of 10 and double facts. • Use a number grid to find 10 more or 10 less than a number. • Directly order three objects by length. • Measure the length of an object with multiple paper clips or pencils. • Answer questions about the total number of data points in one or several categories of a tally chart or bar graph. 	<p>ten, decomposing a number leading to a ten, using the relationship between addition and subtraction and creating equivalent but easier or known sums.</p> <ul style="list-style-type: none"> • Mentally find a number that is 10 more or 10 less than a given number and supply the reasoning used. • Order 3 objects by length and use a third object to compare the length of 2 other objects. • Measure objects by laying multiple copies of a shorter object end to end with no gaps or overlaps to the whole number of that multiple copies. • Organize, represent and interpret data upto 3 categories and ask and answer questions about the total data points in each category or between 2 categories. 		<p>Link Books</p>	<ul style="list-style-type: none"> • Squigly's Apples http://www.primarygames.com/squigly/start.htm • Math Baseball http://www.funbrain.com/math/index.html • Spending Spree http://www.primarygames.com/Spending%20Spree/start.htm • One False Move http://www.funbrain.com/ofm/index.html • Base Ten Fun http://www.abcya.com/base_ten_fun.htm • Place Value Crocodile http://mathgames4children.com/fun-board-games/2nd-grade/crocs/place-value-crocodile-board-game-grade-1-game.html • Place Value-Shark Numbers http://www.ictgames.com/sharkNumbers/sharkNumbers_v5.html <p>ENRICHMENT</p> <ul style="list-style-type: none"> • Base Ten Count http://edbydesign.com/btcount.html <p>FACT PRACTICE WEBSITES: T=Teacher, S=Student</p> <p>www.worksheets.com (T) www.worksheetfun.com (T)</p> <p>www.superteacherworksheets.com (T)</p> <p>www.mathfactcafe.com (T)</p> <p>www.multiplication.com (S)</p> <p>www.gamequarium.com (S)</p> <p>www.coolmath.com (S)</p>		<ul style="list-style-type: none"> • Fact Practice Activities • Home Links Exit Slips

<u>Topics/Concepts</u> (Incl. time / # days per topic)	<u>Critical Content</u> (Students Will Know:)	<u>Skill Objectives</u> (Students Will Be Able To:)	<u>Instructional/Learning Activities</u> & <u>Interdisciplinary Connections</u>	<u>Instructional Resources</u>	<u>Technology & 21st C Skills</u> <u>Integration (Specify)</u>	<u>NJCCCS w/</u> <u>CPI Reference</u>	<u>Evaluation/ Assessment:</u>
					www.factmonster.com (S) www.freeology.com (T) www.funbrain.com (S) www.AAAMath.com (S) www.bigbrainz.com (T & S) www.mathplayground.com (S) www.abcteach.com (T) www.kidscarnival.com (S)		

Unit Modifications for Special Population Students:

Struggling Learners	Gifted and Talented Students (Challenge Activities)	English Language Learners	Special Education Students
4.1 Comparing Objects: Capture the Throne	4.1 Which is longer?	4.1 Use show me/point to commands by modeling descriptive vocab, tall, taller, tallest.	4.1 Comparing Objects: Capture the Throne
4.2 Whose is Longest?	4.2 Exploring Optical Illusions.	4.2 Use sticky notes to demonstrate same size. Ask yes/no questions to compare.	4.2 Whose is Longest?
4.3 Comparing Objects by Length.	4.3 Measuring with Cubits and Hand Spans.	4.3 Use the children and furniture to demonstrate the meaning of distance; Say here is the distance between you & object.	4.3 Comparing Objects by Length.
4.5 Drawing Pattern Block Shapes.	4.5 Exploring Die Rolls	4.5 Use descriptive words (long & skinny, big & wide, small) to introduce the base 10 blocks.	4.5 Drawing Pattern Block Shapes.
4.6 Reading a Tally Chart.	4.6 Making a Bar Graph.	4.6 Use arrows & labels on bar graphs & tally charts to describe different parts.	4.6 Reading a Tally Chart.
4.7 Sharing Pennies	4.7 Finding Doubles Patterns.	4.7 Teach the word doubles by using common objects; bike wheels, eyes, ears, & shoes.	4.7 Sharing Pennies.
4.8 Two-Fisted Penny Addition	4.8 Fact Wizard	4.8 Teach the word combination by showing 2 different sets of objects and then joining them together. Say "I have a combination of ____ and ____."	4.8 Two-Fisted Penny Addition
4.9 +0, +1, and Doubles	4.9 Adding Larger Numbers	4.9 Associate fishing with asking for something. May I have that card? I am fishing for that card.	4.9 +0, +1, and Doubles
4.10 Adding with Tens Frames and Counters.	4.10 Adding Dice Rolls to 20.	4.10 Demonstrate how group can be a verb, I will group all of the circles together. I will put all the circles in one group.	4.10 Adding with Tens Frames and Counters.
4.11 Counting 10s on the Number Grid.	4.11 Guess by 10s.	4.11 Use up & down hand gestures to demonstrate columns. Ask yes/no questions as you show examples and non-examples of columns.	4.11 Counting 10s on the Number Grid.

UNIT OVERVIEW

Course Title: Everyday Mathematics (EDM 4) CCSS (2014)

Unit #: UNIT 5 OVERVIEW

Unit Title: Place Value and Comparisons

Unit Description and Objectives:

In this unit, children investigate place-value concepts for tens and ones. They use place value to compare and add 2-digit numbers. They also explore path measurement. Children’s learning will focus on five clusters of the Common Core’s content standards, as well as in-depth work on two of the Mathematical Purposes.

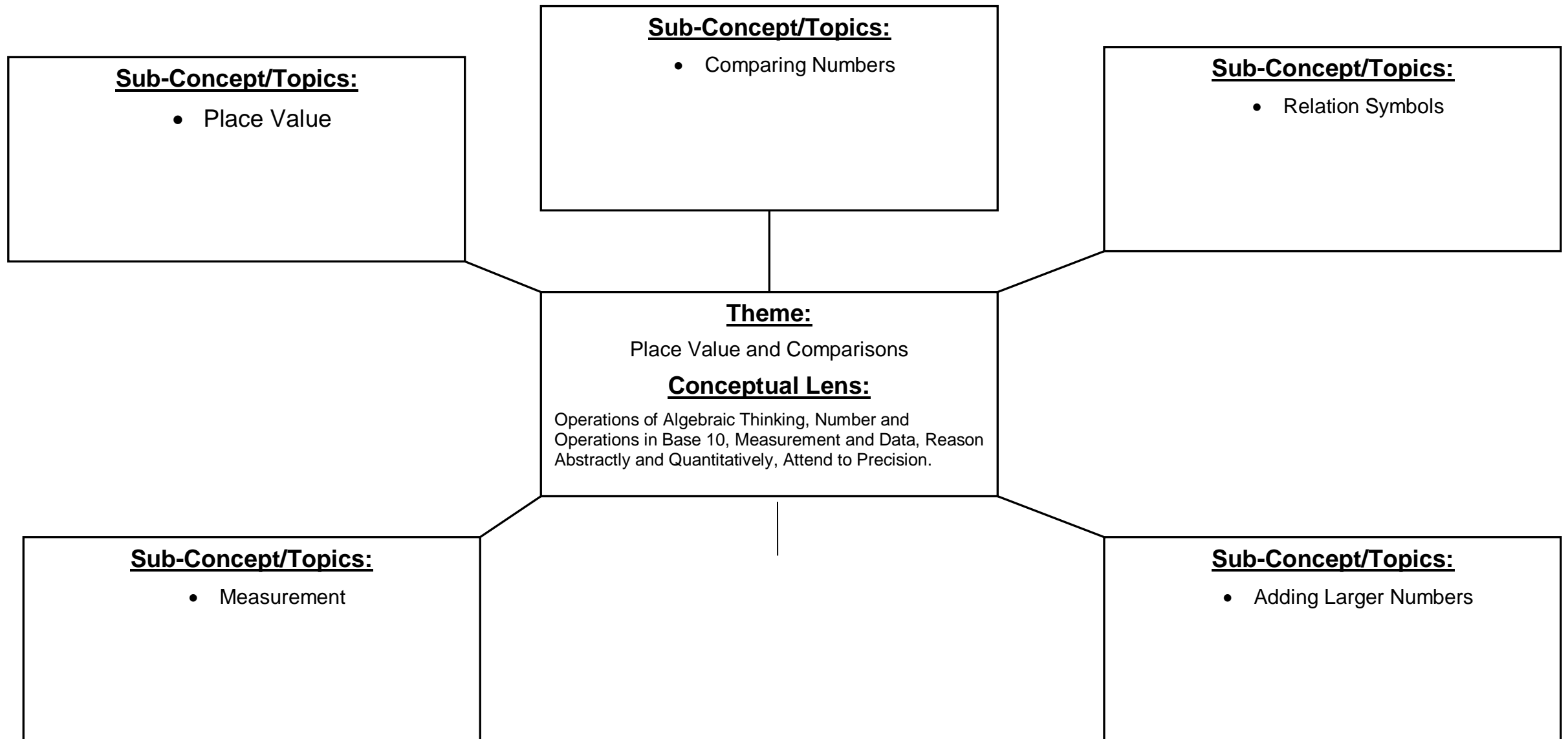
Routines are introduced that will be followed both throughout the school year and in later grades. These routines provide classroom structure for teachers and children to begin working on a number of rich mathematical activities together.

Essential Questions and Enduring Understandings:

Essential Questions:	<u>Enduring Understandings/Generalizations</u> Students will understand that:	Guiding Questions
1. How can we understand subtraction as an unknown-addend problem?	1. a difference can be found with both subtraction and addition where we know the relationship between both operations.	5.1 How can we use base-10 blocks to practice place-value concepts?
2. How can we understand the meaning of the equal sign and determine whether addition or subtraction equations are true or false?	2. the meaning of the equal sign and examining addition and subtraction problems can assist with determining if an equation is true or false.	5.2 How can we use base-10 blocks and calculators to understand place-value?
3. How can we understand that the two-digits of a two-digit number represent amounts of tens and ones?	3. they can identify a two-digit number by the amounts represented of the tens and ones.	5.3 How can we exchange pennies and dimes to better understand the relationship between tens and ones?
4. How can we compare two two-digit numbers based on meanings of the tens and one digits?	4. using the symbols $>$ $<$ $=$ can compare two two-digit numbers one the basis of knowing the meanings of the tens and ones digits.	5.4 How do we use the symbols $>$ $<$ $=$?
5. How can we add within 100 using concrete models, drawings or strategies?	5. adding two-digit and one-digit numbers can include using concrete models or drawings and	5.5 How can we tell if an addition or subtraction problem is true or false?

	strategies based on place value, properties of operations, and/or the relationship between addition and subtraction and can be explained with reasoning.	
6. How can we subtract multiples of 10 in the range of 10-90 from multiples of 10 in the range of 10-90?	6. finding the difference between two-digit multiples of ten can include using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction and can be explained with reasoning.	5.6 How can we apply our understanding of place-value to write numbers up to and beyond 100 on number scrolls?
7. How can we express the length of an object as a whole number of length units?	7. measuring a path with base 10 cubes is a way to express the length of an object as a whole number of length in units.	5.7 How can we find the length of a crooked path with nonstandard units?
		5.8 What is the relationship between tens and ones? How can I compare lengths of two objects?
		5.9 How can I use relation symbols to represent and solve number problems?
		5.10 What strategies can I use to solve comparison number stories?
		5.11 What strategies can I use to add and subtract 2-digit numbers?
		5.12 What tools can I use to solve problems?

UNIT GRAPHIC ORGANIZER



CURRICULUM UNIT PLAN

Course Title/Grade: Everyday Mathematics (EDM 4) CCSS (2014)

Unit Number/Title: Unit 5 – Place Value and Comparisons

Add and subtract within 20, Work with addition and subtraction equations, Understand place value, Use place value understanding and properties of operations to add and subtract, Measure lengths indirectly and by iterating length units, Reason abstractly and quantitatively, Attend to precision.

Conceptual Lens: _____

Appropriate Time Allocation (# of Days): 19 days (including game days)

Primary Core Content Standards referenced With Cumulative Progress Indicators			
Add or subtract within 20.	Work with addition and subtraction equations.	Understand place value.	Use place value understanding and properties of operations to add and subtract.
Measure lengths indirectly and by iterating length units.	Reason abstractly and quantitatively.	Attend to precision.	

Topics/Concepts (Incl. time / # days per topic)	Critical Content (Students Will Know:)	Skill Objectives (Students Will Be Able To:)	Instructional/Learning Activities & Interdisciplinary Connections	Instructional Resources	Technology & 21 st C Skills Integration (Specify)	NJCCCS w/ CPI Reference	Evaluation/ Assessment:
<p>In this unit, children investigate place-value concepts for tens and ones. They use place value to compare and add 2-digit numbers. They also explore path measurement. Children’s learning will focus on five clusters of the Common Core’s content standards, as well as in-depth work on two of the Mathematical Purposes.</p> <ul style="list-style-type: none"> Add or subtract within 20. Work with addition and subtraction 	<ul style="list-style-type: none"> Understand that a difference can be found with both subtraction and addition. Explain the meaning of the equal sign and identify true and false number sentences containing addition and subtraction facts within 10. Identify the two-digit number represented by base 10 blocks. Use $>$ $<$ $=$ to record 	<ul style="list-style-type: none"> Subtract by using knowledge of addition and the addends that make a number. Understand the meaning of the equal sign and determine if equations are true or false. Understand that two-digit numbers represent amounts of tens and ones. Two two-digit numbers can be compared using the symbols $>$ $<$ $=$ based on knowing the meanings of the tens and ones digits. Adding a two-digit number and a one-digit number can include using 	<p><i>Literature Link</i></p> <ul style="list-style-type: none"> 5.1 Children practice identifying digits in number representations while reading <u>The Warlord’s Beads</u> See Activity Card 55. 5.4 Children write their own stories based on the reading of <u>Just Enough Carrots</u> See Activity Card 58. 5.9 Children create number sentences using $.$ $,$ $=$ after reading <u>Alfie the Alligator: A Teaching Rhyme About Comparing Numbers</u> See Activity Card 68. <p><i>Science</i></p> <ul style="list-style-type: none"> Children follow the daily Temperature (TM 26-31) and Weather (TM 22-25) Routines. <p>Math Stations</p>	<ul style="list-style-type: none"> Unit 5 Place Value and Comparison on TM 382-475 EM Journal Games Tool Kit with Manipulatives Class Number Line Class Number Grid Literature Link 	<ul style="list-style-type: none"> Everyday Math Online Web http://www.everydaymath.com Shape Sorter http://www.primarygames.com/puzzles/match_up/shape_match_start.htm Pattern Mania http://www.primarygames.com/patterns/start.htm Number Cracker http://www.funbrain.com/cracker/index.html What Time Is It? http://www.primarygames.com/time/start.htm Take It Away http://www.primarygames.com/takeaway/start.htm The Number Game http://www.primarygames.com/Number%20Game/start.htm What Comes Next? http://www.learningplanet.com/act/123order.asp Squigly’s Apples http://www.primarygames.com/squigly/start.htm 	<p>Standards for Mathematical Content</p> <p>1.OA.4 1.OA.7 1.NBT.2 1.NBT.3 1.NBT.4 1.NBT.6 1.MD.2</p> <p>Standards for Mathematical Practice</p> <p>SMP2 SMP6</p>	<p>Formative Assessments:</p> <p>Progress Check</p> <ul style="list-style-type: none"> Self-Assessment Unit Assessment Unit Challenge Open Response Assessment <p>Timed Tests (Facts to 10) Pre- and Post- Tests administered at the beginning and end of each Marking Period.</p> <ul style="list-style-type: none"> Addition Subtraction <p>Summative Assessment(s)</p> <ul style="list-style-type: none"> Oral and slate assessments through Mental Math and Fluency, games, calendar routine Fact Practice Activities Home Links

Topics/Concepts (Incl. time / # days per topic)	Critical Content (Students Will Know:)	Skill Objectives (Students Will Be Able To:)	Instructional/Learning Activities & Interdisciplinary Connections	Instructional Resources	Technology & 21 st C Skills Integration (Specify)	NJCCCS w/ CPI Reference	Evaluation/ Assessment:
<p>equations.</p> <ul style="list-style-type: none"> • Understand place value. • Use place value understanding and properties of operations to add and subtract. • Measure lengths indirectly and by iterating length units. • Reason abstractly and quantitatively. • Attend to precision. 	<p>comparisons of numbers.</p> <ul style="list-style-type: none"> • Add a two-digit number and a one-digit number using tools. • Find the difference between two-digit multiples of ten using tools. • Measure a path with base-10 cubes. 	<p>concrete models or drawings and strategies based on place value, properties of operations and/or the relationship between addition and subtraction and that one adds tens with tens and ones with ones.</p> <ul style="list-style-type: none"> • Finding the difference between two-digit multiples of ten can include using concrete models or drawings and strategies based on place value, properties of operations and/or the relationship between addition and subtraction and explained through reasoning. • Measuring can include laying multiple copies of a shorter object end to end with no gaps and overlaps represents the whole number of length units of an object. 		Books	<ul style="list-style-type: none"> • Math Baseball http://www.funbrain.com/math/index.html • Spending Spree http://www.primarygames.com/Spending%20Spree/start.htm • One False Move http://www.funbrain.com/ofm/index.html • Base Ten Fun http://www.abcya.com/base_ten_fun.htm • Place Value Crocodile http://mathgames4children.com/fun-board-games/2nd-grade/crocs/place-value-crocodile-board-game-grade-1-game.html • Place Value-Shark Numbers http://www.ictgames.com/sharkNumbers/sharkNumbers_v5.html <p>ENRICHMENT</p> <ul style="list-style-type: none"> • Base Ten Count http://edbydesign.com/btcount.html <p>FACT PRACTICE WEBSITES: T=Teacher, S=Student</p> <p>www.worksheets.com (T) www.worksheetfun.com (T)</p> <p>www.superteacherworksheets.com (T)</p> <p>www.mathfactcafe.com (T)</p> <p>www.multiplication.com (S)</p> <p>www.gamequarium.com (S)</p> <p>www.coolmath.com (S)</p> <p>www.factmonster.com (S)</p> <p>www.freeology.com (T)</p> <p>www.funbrain.com (S)</p>		Exit Slips

Topics/Concepts (Incl. time / # days per topic)	Critical Content (Students Will Know:)	Skill Objectives (Students Will Be Able To:)	Instructional/Learning Activities & Interdisciplinary Connections	Instructional Resources	Technology & 21st C Skills Integration (Specify)	NJCCCS w/ CPI Reference	Evaluation/ Assessment:
					www.AAAMath.com (S) www.bigbrainz.com (T & S) www.mathplayground.com (S) www.abcteach.com (T) www.kidscarnival.com (S)		

Unit Modifications for Special Population Students:

Struggling Learners	Gifted and Talented Students (Challenge Activities)	English Language Learners	Special Education Students
5.1 Writing and Reading Numbers to 99.	5.1 Guessing My Two-Digit Number.	5.1 Intro meaning of place, use teacher's chair, student chair. Intro Tens and Ones Mat & emphasize longs go in the tens place and cubes go in the ones place.	5.1 Writing and Reading Numbers to 99.
5.2 Finding Values of Base 10 Block Designs.	5.2 Base 10 Block Challenge.	5.2 Scaffold understanding of words <i>represent</i> and <i>stand for</i> by doing a think aloud as you write 2 digit numbers and model w/ base 10 blocks.	5.2 Finding Values of Base 10 Block Designs.
5.3 Doing More Start and Stop Counting.	5.3 Trading Dimes for Pennies.	5.3 Children do choral counting by 10s to 100.	5.3 Doing More Start and Stop Counting.
5.4 Grabbing Numbers.	5.4 Completing Number Sentences.	5.4 Provide visuals with pictures, symbols, single words and sentences to read relation symbols and number sentences.	5.4 Grabbing Numbers.
5.5 Modeling Number Stories.	5.5 Balancing Number Sentences.	5.5 Use happy and sad faces to help reinforce terms true & false.	5.5 Modeling Number Stories.
5.6 Naming Numbers Before and After 2 digit numbers.	5.6 Fill My Number Grid.	5.6 Use moveable arrows on a number grid or line to reinforce concept of <i>just before</i> and <i>just after</i> .	5.6 Naming Numbers Before and After 2 digit numbers.
5.7 Comparing Lengths of Paper.	5.7 Path Challenge.	5.7 Use descriptive terms to describe paths can be crooked, straight, curved, zigzag. Ask yes/no questions. Is this a crooked path?	5.7 Comparing Lengths of Paper.
5.8 Race to Order.	5.8 Catch a Crooked Path.	5.8 Reinforce understanding of terms <i>gap</i> , <i>overlap</i> , & <i>end-to-end</i> by using paper clips to demonstrate.	5.8 Race to Order.
5.9 More, Less, or Equal.	5.9 Building a Number Sentence Challenge.	5.9 Provide oral practice of comparing animal weights by using weight cards. Use short sentence frames with one word answers.	5.9 More, Less, Equal.
5.10 Finding the Difference with Counters.	5.10 Comparing Animal Weights.	5.10 Connect terms <i>difference</i> and <i>how many more</i> by showing unequal sets and asking questions using those terms.	5.10 Finding the Difference with Counters.

5.11 Adding Numbers with Base 10 Blocks.	5.11 Playing Animal Weight Top-It.	5.11 Provide pictures and words of animals that may not be as well known as cats & dogs	5.11 Adding Numbers with Base 10 Blocks.
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UNIT OVERVIEW

Course Title: Everyday Mathematics (EDM 4) CCSS (2014)

Unit #: UNIT 6 OVERVIEW

Unit Title: Addition Fact Strategies

Unit Description and Objectives:

In this unit, children work toward fluency with addition facts. They also explore telling time and solving number stories. Children’s learning will focus on five clusters of the Common Core’s content standards, as well as in-depth work on two of the Mathematical Purposes.

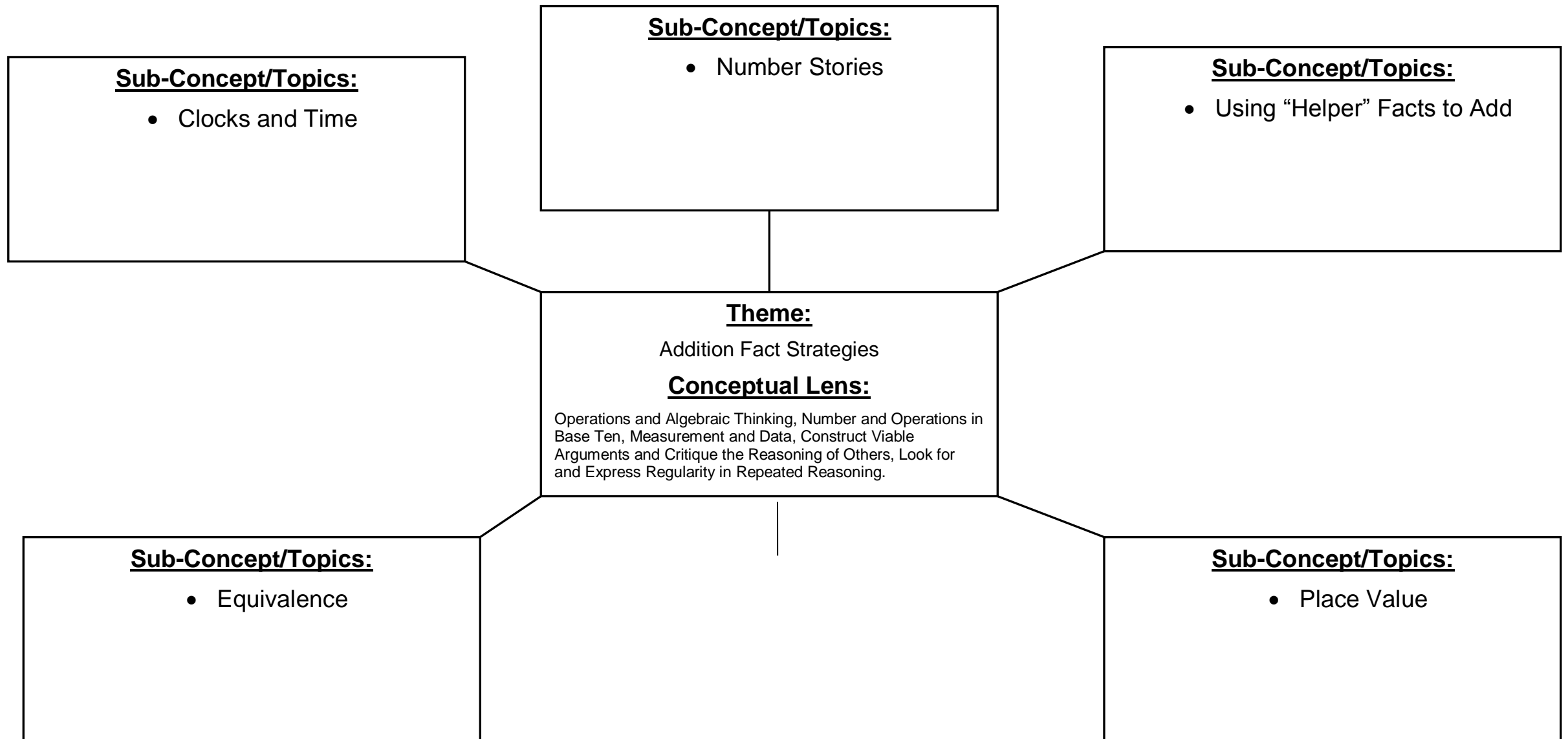
Routines are introduced that will be followed both throughout the school year and in later grades. These routines provide classroom structure for teachers and children to begin working on a number of rich mathematical activities together.

Essential Questions and Enduring Understandings:

Essential Questions:	<u>Enduring Understandings/Generalizations</u> Students will understand that:	Guiding Questions
1. How can we apply properties of operations as strategies to add and subtract?	1. applying the commutative and associative properties of addition will solve problems.	6.1 How can we use hour-hand only clocks to tell time?
2. How can we add and subtract within 20 demonstrating fluency for adding and subtracting within 10?	2. using doubles facts and combinations of 10 will help solve other addition and subtraction facts within 20.	6.2 How can we solve number stories with two or three addends?
3. How can understand the meaning of the equal sign and determine if equations are true or false?	3. they can find equivalent names for numbers.	6.3 How can we determine if number stories are true or false? How can we practice addition doubles? How can we create shapes with given attributes?
4. How can we use tens and ones to represent a two digit number?	4. they can find the value of each digit in a two-digit number.	6.4 How can we use the near double strategy to solve addition problems within 20?

5. How can we add within 100 using properties of operations?	5. using tools can help add within 100.	6.5 How can we solve facts within 20 using pictures, words and symbols?
6. How can we subtract multiples of 10 using concrete models, drawings, or strategies?	6. using tools can help subtract two digit multiples of 10 from other two-digit multiples of 10	6.6 How can we use the making 10 strategy for adding and subtracting within 20?
7. How can we tell and write time in hours and half hours using analog and digital clocks?	7. using an hour-hand only analog clock, they can tell time to the hour	6.7 How can we use the <i>my Reference Book</i> to find mathematical information?
		6.8 How can we solve a multi-step number story?
		6.9 How can use addition and subtraction facts to complete a name collection box?
		6.10 How can use base 10 blocks to solve place value riddles?
		6.11 How can we use place value understanding to make exchanges for pennies, dimes, and dollars?

UNIT GRAPHIC ORGANIZER



CURRICULUM UNIT PLAN

Course Title/Grade: Everyday Mathematics (EDM 4) CCSS (2014)

Unit Number/Title: Unit 6 – Addition Fact Strategies

Operations and Algebraic Thinking, Number and Operations in Base Ten, Measurement and Data, Construct Viable Arguments and Critique the Reasoning of Others, Look for and Express Regularity in Repeated Reasoning.

Conceptual Lens: _____

Appropriate Time Allocation (# of Days): 18 days (including game days)

Primary Core Content Standards referenced With Cumulative Progress Indicators			
Represent and solve problems including addition and subtraction.	Add and subtract within 10.	Understand place value.	Use place value understanding and properties of operations to add and subtract.
Tell and write time.	Construct Viable Arguments and Critique the Reasoning of Others.	Look for and Express Regularity in Repeated Reasoning.	

<u>Topics/Concepts</u> (Incl. time / # days per topic)	<u>Critical Content</u> (Students Will Know:)	<u>Skill Objectives</u> (Students Will Be Able To:)	<u>Instructional/Learning Activities & Interdisciplinary Connections</u>	<u>Instructional Resources</u>	<u>Technology & 21st C Skills Integration (Specify)</u>	<u>NJCCCS w/ CPI Reference</u>	<u>Evaluation/ Assessment:</u>
In this unit, children work toward fluency with addition facts. They also explore telling time and solving number stories. Children’s learning will focus on five clusters of the Common Core’s content standards, as well as in-depth work on two of the Mathematical Purposes. <ul style="list-style-type: none"> Represent and solve problems including addition and subtraction. Add and subtract within 	<ul style="list-style-type: none"> Apply the commutative and associative properties of addition to solve problems Use doubles facts & combinations of 10 to help solve other addition & subtraction facts within 20 Find equivalent names for numbers Tell the value of each digit in a two-digit number To add within 100 using tools Subtract two-digit multiples of 10 from 	<ul style="list-style-type: none"> Apply properties of operations as strategies to add and subtract. (commutative and associative properties) Add and subtract within 20 using strategies such as making 10, relationship between add/sub, creating easier known sums Understand the meaning of the equal sign and determine if equations are true or false Understand that the two digits of a two-digit number represent amounts of tens and ones Add within 100, including adding a 	<p><i>Literature Link</i></p> <ul style="list-style-type: none"> 6.7 Children tell and solve number stories based on the book <u>Seaweed Soup</u> See Activity Card 80. <p><i>Science</i></p> <ul style="list-style-type: none"> Children follow the daily Temperature (TM 26-31) and Weather (TM 22-25) Routines. <p>Math Stations</p>	<ul style="list-style-type: none"> Unit 6 Addition Fact Strategies TM 492-581 EM Journal Games Tool Kit with Manipulatives Class Number Line Class Number Grid Literature Link Books 	<ul style="list-style-type: none"> Everyday Math Online Web http://www.everydaymath.com Shape Sorter http://www.primarygames.com/puzzles/match_up/shape_match/start.htm Pattern Mania http://www.primarygames.com/patterns/start.htm Number Cracker http://www.funbrain.com/cracker/index.html What Time Is It? http://www.primarygames.com/time/start.htm Take It Away http://www.primarygames.com/takeaway/start.htm The Number Game http://www.primarygames.com/Number%20Game/start.htm What Comes Next? http://www.learningplanet.com/act/123order.asp Squigly’s Apples http://www.primarygames.com/squigly/start.htm 	<p>Standards for Mathematical Content</p> <p>1.OA.3 1.OA.6 1.OA.7 1.NBT.2 1.NBT.4 1.NBT.6 1.MD.3</p> <p>Standards for Mathematical Practice</p> <p>SMP3 SMP8</p>	<p>Formative Assessments:</p> <p>Progress Check</p> <ul style="list-style-type: none"> Self-Assessment Unit Assessment Unit Challenge Open Response Assessment <p>Timed Tests (Facts to 10) Pre- and Post- Tests administered at the beginning and end of each Marking Period.</p> <ul style="list-style-type: none"> Addition Subtraction <p>Summative Assessment(s)</p> <ul style="list-style-type: none"> Oral and slate assessments through Mental Math and Fluency, games, calendar routine Fact Practice Activities Home Links

Topics/Concepts (Incl. time / # days per topic)	Critical Content (Students Will Know:)	Skill Objectives (Students Will Be Able To:)	Instructional/Learning Activities & Interdisciplinary Connections	Instructional Resources	Technology & 21 st C Skills Integration (Specify)	NJCCCS w/ CPI Reference	Evaluation/ Assessment:
<p>10.</p> <ul style="list-style-type: none"> Understand place value. Use place value understanding and properties of operations to add and subtract. Tell and write time. Construct Viable Arguments and Critique the Reasoning of Others. Look for and Express Regularity in Repeated Reasoning. 	<p>other two-digit multiples of 10 using tools</p> <ul style="list-style-type: none"> Tell time to the hour on an hour-hand only analog clock 	<p>two-digit number and a one-digit number, adding a multiple of 10. Understand that in adding two-digit numbers, one adds ones and ones, tens and tens and sometimes it is necessary to compose a ten.</p> <ul style="list-style-type: none"> Subtract multiples of 10 in the range of 10-90, use concrete models or drawings and strategies based on place value, properties of operations, or relationship between addition and sub Tell and write time in hours and half hours using analog and digital clocks 			<ul style="list-style-type: none"> Math Baseball http://www.funbrain.com/math/index.html Spending Spree http://www.primarygames.com/Spending%20Spree/start.htm One False Move http://www.funbrain.com/ofm/index.html Base Ten Fun http://www.abcya.com/base_ten_fun.htm Place Value Crocodile http://mathgames4children.com/fun-board-games/2nd-grade/crocs/place-value-crocodile-board-game-grade-1-game.html Place Value-Shark Numbers http://www.ictgames.com/sharkNumbers/sharkNumbers_v5.html <p>ENRICHMENT</p> <ul style="list-style-type: none"> Base Ten Count http://edbydesign.com/btcount.html <p>FACT PRACTICE WEBSITES: T=Teacher, S=Student</p> <p>www.worksheets.com (T) www.worksheetfun.com (T)</p> <p>www.superteacherworksheets.com (T)</p> <p>www.mathfactcafe.com (T)</p> <p>www.multiplication.com (S)</p> <p>www.gamequarium.com (S)</p> <p>www.coolmath.com (S)</p> <p>www.factmonster.com (S)</p> <p>www.freeology.com (T)</p> <p>www.funbrain.com (S)</p>		Exit Slips

<u>Topics/Concepts</u> (Incl. time / # days per topic)	<u>Critical Content</u> (Students Will Know:)	<u>Skill Objectives</u> (Students Will Be Able To:)	<u>Instructional/Learning Activities</u> & <u>Interdisciplinary Connections</u>	<u>Instructional</u> <u>Resources</u>	<u>Technology & 21st C Skills</u> <u>Integration (Specify)</u>	<u>NJCCCS w/</u> <u>CPI Reference</u>	<u>Evaluation/ Assessment:</u>
					www.AAAMath.com (S) www.bigbrainz.com (T & S) www.mathplayground.com (S) www.abcteach.com (T) www.kidscarnival.com (S)		

Unit Modifications for Special Population Students:

Struggling Learners	Gifted and Talented Students (Challenge Activities)	English Language Learners	Special Education Students
6.1 Scheduling Daily Events.	6.1 Ordering Times of Daily Activities.	6.1. Review terms face & hands pertaining to the body then pertaining to a clock. Use show me prompts. Show me your hands. Show me the hands on the clock.	6.1 Scheduling Daily Activities.
6.2 Modeling Number Stories and Counters.	6.2 Science and Social Studies Number Stories.	6.2 Use various objects to build understanding of <i>same, like and alike</i>	6.2 Modeling Number Stories and Counters.
6.3 Playing Roll and Record Doubles.	6.3 Egg Carton Addition with 3 Pennies.	6.3	6.3 Playing Roll and Record Doubles.
6.4 Exploring Doubles.	6.4 Drawing Doubles Pictures.	6.4 Use examples and non-examples to demonstrate <i>near</i> . Use number line to name a number <i>near</i> another number.	6.4 Exploring Doubles.
6.5 Domino Doubles.	6.5 Recording Near Doubles.	6.5 Describe word <i>record</i> by thinking aloud This is how you recorded your work. Show me how you recorded some shapes.	6.5 Domino Doubles.
6.6 Playing Fishing for 10.	6.6 Making 100.	6.6 Use double tens frames to practice teen numbers. Say ten and three.	6.6 Playing Fishing for 10.
6.7 Exploring the Table of Contents.	6.7 Playing My Reference Book I Spy.	6.7 Use pictures to show various types of tables including data table, table of contents and eating table.	6.7 Exploring the Table of Contents.
6.9 Modeling Equivalence.	6.9 Musical Name-Collection Boxes.	6.9 Roll play and think aloud to demonstrate collecting and collection. I am collecting all the pencils. I have a collection of pencils.	6.9 Modeling Equivalence.
6.10 Counting Base 10 Blocks with a Calculator.	6.10 Playing the Digit-Game with 3-Digit Numbers.	6.10 Use connecting cubes to demonstrate exchanging for equal value. Use expression "let's exchange".	6.10 Counting Base 10 Blocks with a Calculator.
6.11 Playing Penny-Dime Exchange.	6.11 Coin Scoop.	6.11 Provide exposure to a variety of coins and bills. Notice attributes such as color, thickness, size, weight, texture, design, etc. Name money & value.	6.11 Playing Penny-Dime Exchange.

UNIT OVERVIEW

Course Title: Everyday Mathematics (EDM 4) CCSS (2014)

Unit #: UNIT 7 OVERVIEW

Unit Title: Subtraction Fact Strategies and Attributes of Shapes

Unit Description and Objectives:

In this unit, children explore the relationship between addition and subtraction, compare different subtraction strategies, and continue to work on fact fluency. They also explore the defining and non-defining attributes of 2-dimensional shapes and continue their work telling time to the nearest hour, using analog and digital clocks. Children’s learning will focus on five clusters of the Common Core’s content standards, as well as in-depth work on two of the Mathematical Purposes.

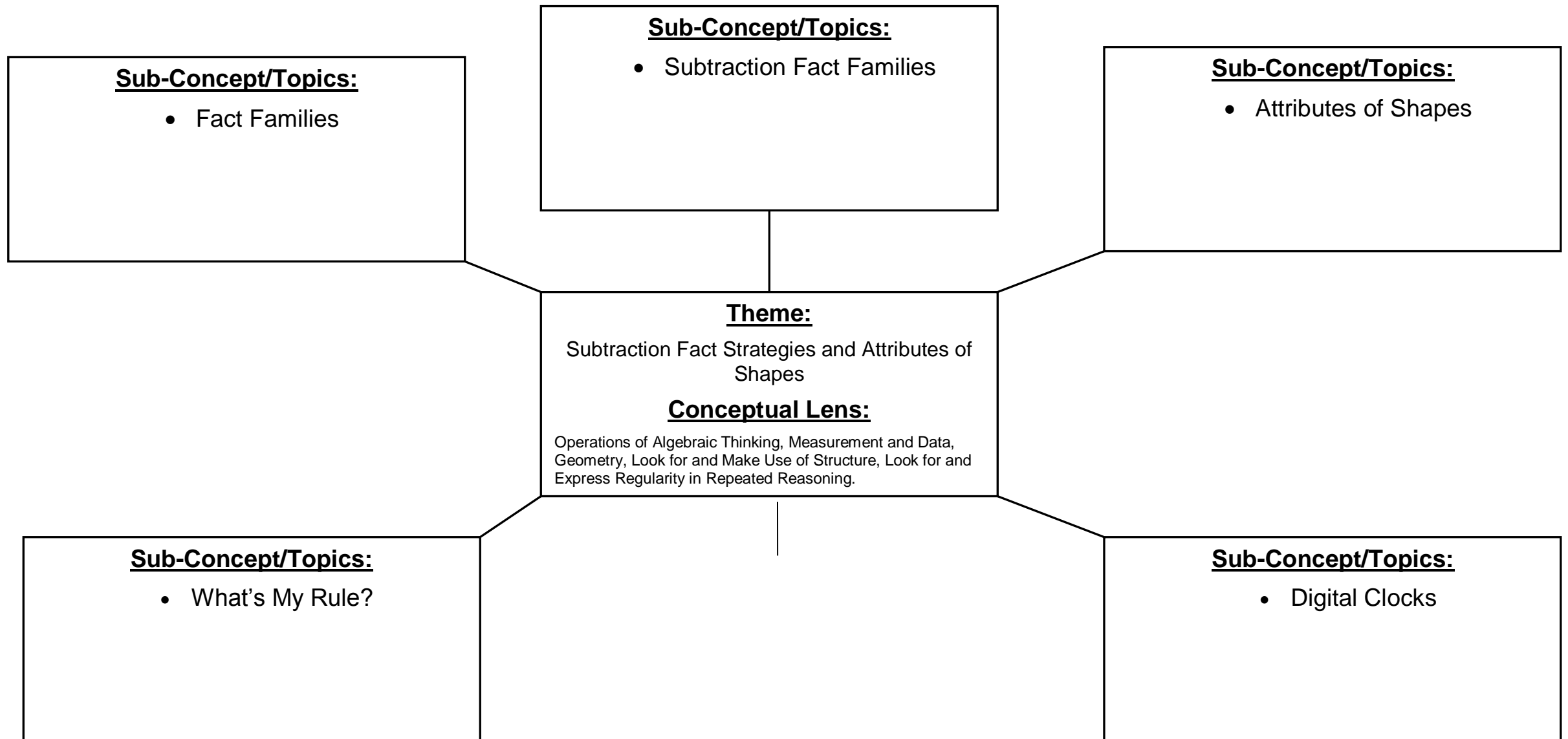
Routines are introduced that will be followed both throughout the school year and in later grades. These routines provide classroom structure for teachers and children to begin working on a number of rich mathematical activities together.

Essential Questions and Enduring Understandings:

Essential Questions:	<u>Enduring Understandings/Generalizations</u> Students will understand that:	Guiding Questions
1. How can we apply properties of operations as strategies to add and subtract?	1. Using the turn-around rule will generate fact families.	7.1 How can we deepen understanding of add/sub by learning about fact families?
2. How can we understand subtraction as an unknown addend problem?	2. Thinking addition will help find the answer to subtraction, use missing addend.	7.2 How can we use fact families to practice adding and subtracting within 20?
3. How can we add and subtract within 20, showing fluency within 10?	3. using think addition, counting up, and counting back strategies will solve subtraction facts.	7.3 How can we use the <i>think addition strategy</i> for doubles and 10 facts?
4. How can we determine the unknown whole number in an addition or subtraction equation relating three whole numbers?	4. finding a unknown rule, relating two numbers, and describing that relationship with a number sentence.	7.4 How can we use the counting up & counting back strategies for subtraction to compare the efficiency of those strategies?
5. How can we tell and write time in hours and half hours?	5. time to the hour can be shown on an analog clock with both the hour and minute	7.5 How can we identify and sort attribute blocks?

	hands.	
6. How can we distinguish between defining attributes and non-defining attributes?	6. they can name defining attributes of 2-dimensional shapes (such as closed and three sided for a triangle)	7.6 How can we sort by attribute rules, explore equally divided shapes, and practice add/sub facts?
		7.7 How can we differentiate between defining and non-defining attributes of 2-dimensional shapes?
		7.8 How can we use the <i>What's My Rule?</i> routine to find unknown numbers?
		7.9 How can we use real world situations to solve problems?
		7.10 How can we use the <i>What's My Rule?</i> routine to find unknown numbers and practice addition facts?
		7.11 How can we use digital and analog clocks to tell time?

UNIT GRAPHIC ORGANIZER



CURRICULUM UNIT PLAN

Course Title/Grade: Everyday Mathematics (EDM 4) CCSS (2014)

Unit Number/Title: Unit 7 – Subtraction Fact Strategies and Attributes of Shapes

Conceptual Lens: _____

Appropriate Time Allocation (# of Days): 18 days (including game days)

Primary Core Content Standards referenced With Cumulative Progress Indicators			
Understand and apply properties of operations and the relationship between addition and subtraction.	Add and subtract within 20.	Work with addition and subtraction equations.	Tell and write time.
Reason with shapes and their attributes.	Look for and Make Use of Structure.	Look for and Express Regularity in Repeated Reasoning.	

Topics/Concepts (Incl. time / # days per topic)	Critical Content (Students Will Know:)	Skill Objectives (Students Will Be Able To:)	Instructional/Learning Activities & Interdisciplinary Connections	Instructional Resources	Technology & 21st C Skills Integration (Specify)	NJCCCS w/ CPI Reference	Evaluation/ Assessment:
In this unit, children explore the relationship between addition and subtraction, compare different subtraction strategies, and continue to work on fact fluency. They also explore the defining and nondefining attributes of 2-dimensional shapes and continue their work telling time to the nearest hour, using analog and digital clocks. Children’s learning will focus on five clusters of the	<ul style="list-style-type: none"> Use the turn around rule to generate fact families Think addition to find the difference between two numbers Use think addition, counting up, and counting back strategies to solve subtraction facts Show time to the hour on an analog clock with both minute & hour hands Name defining attributes of 	<ul style="list-style-type: none"> Apply properties of operations as strategies to add and subtract (commutative and associative properties) Understand subtraction as an unknown addend problem, add and subtract within 20 Add and subtract within 20 using strategies such as making 10, relationship between add/sub, creating easier known sums Determine the unknown whole number in an addition or subtraction equation relating three whole numbers 	<p><i>Literature Link</i></p> <ul style="list-style-type: none"> 7.5 Children practice identifying shapes with different attributes by searching for shapes in the book <u>Windows, Rings and Grapes: A Look at Different Shapes</u> See Activity Card 87 <p><i>Science</i></p> <ul style="list-style-type: none"> Children follow the daily Temperature (TM 26-31) and Weather (TM 22-25) Routines. <p>Math Stations</p>	<ul style="list-style-type: none"> Unit 7 Subtraction Fact Strategies and Attributes of Shapes TM 582-671 EM Journal Games Tool Kit with Manipulatives Class Number Line Class Number 	<ul style="list-style-type: none"> Everyday Math Online Web http://www.everydaymath.com Shape Sorter http://www.primarygames.com/puzzles/match_up/shape_match/start.htm Pattern Mania http://www.primarygames.com/patterns/start.htm Number Cracker http://www.funbrain.com/cracker/index.html What Time Is It? http://www.primarygames.com/time/start.htm Take It Away http://www.primarygames.com/takeaway/start.htm The Number Game http://www.primarygames.com/Number%20Game/start.htm What Comes Next? http://www.learningplanet.com/act/123order.asp Squigly’s Apples 	<p>Standards for Mathematical Content</p> <p>1.OA.3 1.OA.4 1.OA.6 1.OA.8 1.MD.3 1.G.1</p> <p>Standards for Mathematical Practice</p> <p>SMP7 SMP8</p>	<p>Formative Assessments:</p> <p>Progress Check</p> <ul style="list-style-type: none"> Self-Assessment Unit Assessment Unit Challenge Open Response Assessment <p>Timed Tests (Facts to 10) Pre- and Post- Tests administered at the beginning and end of each Marking Period.</p> <ul style="list-style-type: none"> Addition Subtraction <p>Summative Assessment(s)</p> <ul style="list-style-type: none"> Oral and slate assessments through Mental Math and Fluency, games, calendar routine Fact Practice

Topics/Concepts (Incl. time / # days per topic)	Critical Content (Students Will Know:)	Skill Objectives (Students Will Be Able To:)	Instructional/Learning Activities & Interdisciplinary Connections	Instructional Resources	Technology & 21 st C Skills Integration (Specify)	NJCCCS w/ CPI Reference	Evaluation/ Assessment:
<p>Common Core's content standards, as well as in-depth work on two of the Mathematical Purposes.</p> <ul style="list-style-type: none"> Understand and apply properties of operations and the relationship between addition and subtraction. Add and subtract within 20. Work with addition and subtraction equations. Tell and write time. Reason with shapes and their attributes. Look for and Make Use of Structure. Look for and Express Regularity in Repeated Reasoning. 	<p>2-dimensional shapes</p>	<ul style="list-style-type: none"> Tell and write time in hours and half hours using analog and digital clocks Distinguish between defining attributes versus non-defining attributes, build and draw shapes to possess defining attributes 		<p>Grid</p> <ul style="list-style-type: none"> Literature Link Books 	<p>http://www.primarygames.com/squigly/start.htm</p> <ul style="list-style-type: none"> Math Baseball http://www.funbrain.com/math/index.html Spending Spree http://www.primarygames.com/Spending%20Spree/start.htm One False Move http://www.funbrain.com/ofm/index.html Base Ten Fun http://www.abcya.com/base_ten_fun.htm Place Value Crocodile http://mathgames4children.com/fun-board-games/2nd-grade/crocs/place-value-crocodile-board-game-grade-1-game.html Place Value-Shark Numbers http://www.ictgames.com/sharkNumbers/sharkNumbers_v5.html ENRICHMENT Base Ten Count http://edbydesign.com/btcount.html <p>FACT PRACTICE WEBSITES: T=Teacher, S=Student</p> <p>www.worksheets.com (T) www.worksheetfun.com (T)</p> <p>www.superteacherworksheets.com (T)</p> <p>www.mathfactcafe.com (T)</p> <p>www.multiplication.com (S)</p> <p>www.gamequarium.com (S)</p> <p>www.coolmath.com (S)</p> <p>www.factmonster.com (S)</p> <p>www.freeology.com (T)</p>		<p>Activities</p> <ul style="list-style-type: none"> Home Links Exit Slips

<u>Topics/Concepts</u> (Incl. time / # days per topic)	<u>Critical Content</u> (Students Will Know:)	<u>Skill Objectives</u> (Students Will Be Able To:)	<u>Instructional/Learning Activities</u> & <u>Interdisciplinary Connections</u>	<u>Instructional</u> <u>Resources</u>	<u>Technology & 21st C Skills</u> <u>Integration (Specify)</u>	<u>NJCCCS w/</u> <u>CPI Reference</u>	<u>Evaluation/ Assessment:</u>
					www.funbrain.com (S) www.AAAmath.com (S) www.bigbrainz.com (T & S) www.mathplayground.com (S) www.abcteach.com (T) www.kidscarnival.com (S)		

Unit Modifications for Special Population Students:

Struggling Learners	Gifted and Talented Students (Challenge Activities)	English Language Learners	Special Education Students
7.1 Number Card and Domino Concentration.	7.1 Fact Family Swap.	7.1 Intro term fact family by showing a family portrait emphasizing the people are in the same family. Show a number fact family.	7.1 Number Card and Domino Concentration.
7.2 Constructing Fact Families.	7.2 Exploring Patterns Using Fact Triangles.	7.2 Review terms triangle, fact, fact family	7.2 Constructing Fact Families.
7.3 Patterns in Addition Top-It.	7.3 Playing Top-It with Subtraction.	7.3 Intro term similar. Use phrases <i>like each other & similar to each other</i> interchangeably.	7.3 Patterns in Addition Top-It.
7.4 Playing Subtraction BINGO.	7.4 Strategy Draw.	7.4 Use hand gestures to demonstrate counting up & back on a number line or grid.	7.4 Playing Subtraction BINGO.
7.5 Fishing for Attributes.	7.5 What's My Attribute Rule?	7.5 Use familiar objects to intro <i>thick & thin, large & small</i> . Ask yes/no questions.	7.5 Fishing for Attributes.
7.6 Sorting Classroom Objects by Attributes.	7.6 Attribute Train Game.	7.6 Use familiar objects to intro <i>thick & thin, large & small</i> as well as shape & color. Ask yes/no questions	7.6 Sorting Classroom Objects by Attributes.
7.7 Sorting Shapes by Attributes.	7.7 Growing Polygons.	7.7 Use familiar objects to intro terms <i>common & same, different & not the same</i> .	7.7 Sorting Shapes by Attributes.
7.8 Identifying Arrow Rules.	7.8 Making "What's My Rule" Problems.	7.8 Use hand gestures to demonstrate the <i>in & out</i> of What's My Rule? table. Use terms <i>in & input and out & output</i> .	7.8 Identifying Arrow Rules.
7.10 Solving Number Mysteries.	7.10 Filling in Frames and Rules.	7.10 Restate- <i>figure out as find an answer, the missing number as the numbers that are not there, and unknown as number we don't know</i> .	7.10 Solving Number Mysteries.
7.11 Just Before and Just After.	7.11 Calculating Elapsed Time.	7.11 Review term hands pertaining to a clock. Use show me prompts. Show me your hands. Show me the minute and hour hands on the clock.	7.11 Just Before and Just After.

UNIT OVERVIEW

Course Title: Everyday Mathematics (EDM 4) CCSS (2014)

Unit #: UNIT 8 OVERVIEW

Unit Title: Geometry

Unit Description and Objectives:

In this unit, children learn about attributes of shapes, compose and decompose composite shapes, and divide shapes into halves and fourths. Children also continue to practice telling time and writing time, work with bar graphs, and use their understanding of place value and properties of operations to add and subtract larger numbers. Children’s learning will focus on four clusters of the Common Core’s content standards, as well as in-depth work on two of the Mathematical Purposes.

Routines are introduced that will be followed both throughout the school year and in later grades. These routines provide classroom structure for teachers and children to begin working on a number of rich mathematical activities together.

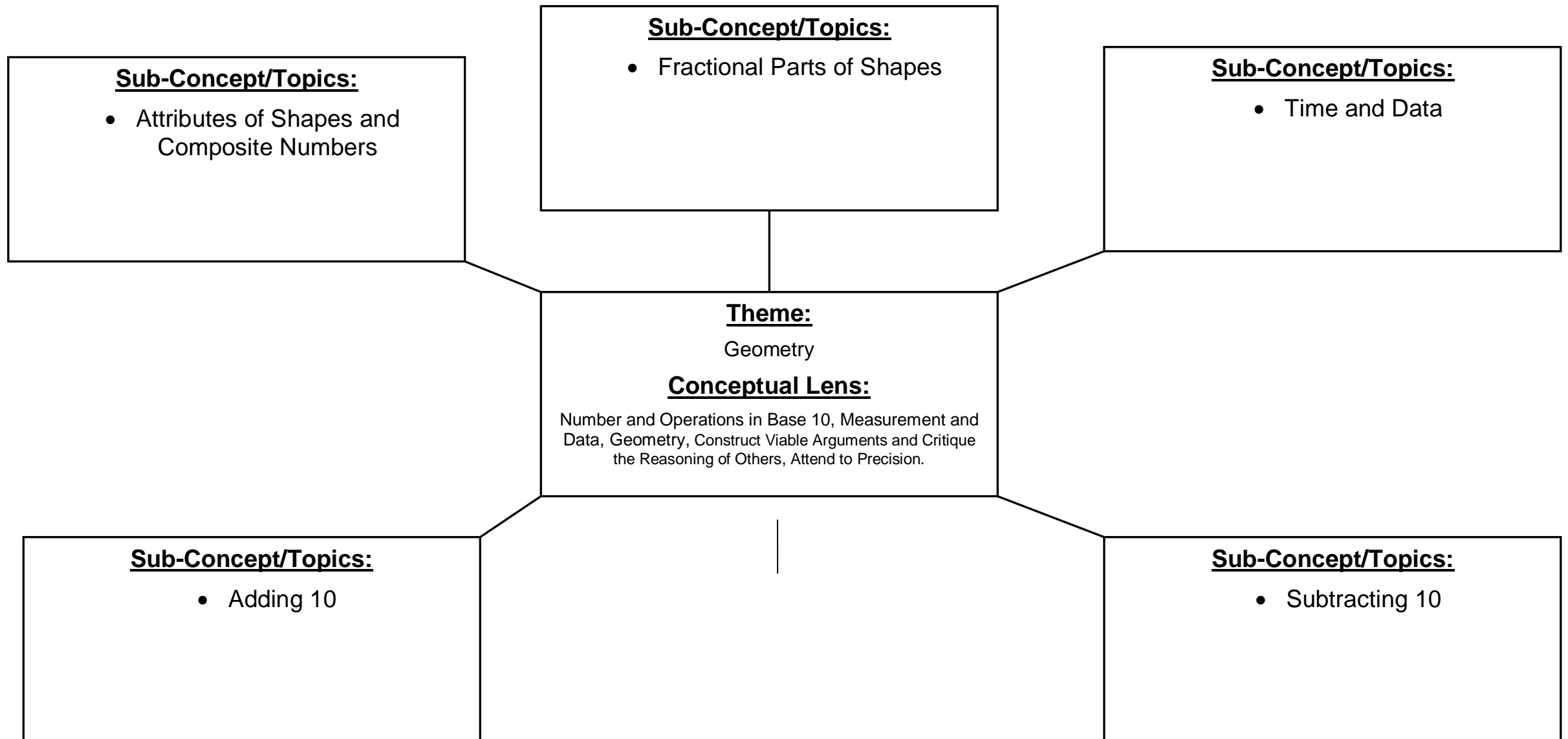
Essential Questions and Enduring Understandings:

Essential Questions:	<u>Enduring Understandings/Generalizations</u> Students will understand that:	Guiding Questions
1. . How can we add and subtract within 20, showing fluency within 10?	1. using strategies such as counting on, making ten, etc. you can solve addition and subtraction facts within 10.	8.1 How can we construct 2 dimensional shapes and identify defining and non defining attributes of those shapes?
2. How can we understand that the 2 digits of a 2 digit number represent amounts of tens and ones?	2. applying place value understanding (tens and ones) solves number grid puzzles	8.2 How can we divide shapes into 2 equal shares and name the shares?
3. How can we mentally find 10 more or 10 less than a number without having to count?	3. you can mentally find 10 more or less than a given number without counting.	8.3 How can we divide shapes into 4 equal shares and name the shares?
4. How can we tell time in hours and half hours using analog and digital clocks?	4. using digital and analog clocks you can tell time to the half hour.	8.4 How can we use drawings to answer questions about sharing paper squares?
5. How can we organize, represent and interpret data; and ask & answer questions for given	5. you can use bar graphs and tally charts to represent and answer questions about data	8.5 How can we combine 2-dimensional shapes to create composite shapes and then

information?	with up to 3 categories.	compose new shapes from the composite shapes?
6. How can we distinguish between defining attributes and non-defining attributes and build and draw shapes to possess defining attributes?	6. distinguishing between defining attributes of 2- and 3-dimensional shapes can help name those shapes.	8.6 How can we identify defining attributes of 3-dimensional shapes?
7. How can we compose 2- or 3-dimensional shapes to create a composite shape?	7. you can make composite shapes from 2-dimensional shapes.	8.7 How can we create composite shapes from 2- and 3-dimensional shapes? How can we identify facts that can be solved with different fact strategies?
8. How can we partition circles and rectangles into 2 and 4 equal shares, describing the shares as halves, fourths, and quarters?	8. you can partition shapes into 2 and 4 equal shares and name the shares using halves, fourths and quarters and that more shares means smaller shares	8.8 How can we tell and write time to the half hour?
		8.9 How can we create bar graphs and ask & answer questions about the data?
		8.10 How can we review place value patterns in the number grid and use them to solve number grid puzzles?
		8.11 How can use place value to mentally add and subtract from a given number?

UNIT GRAPHIC ORGANIZER

Construct viable arguments and critique the reasoning of others



CURRICULUM UNIT PLAN

Course Title/Grade: Everyday Mathematics (EDM 4) CCSS (2014)

Unit Number/Title: Unit 8 -Geometry

Number and Operations in Base 10, Measurement and Data, Geometry, Construct Viable Arguments and Critique the Reasoning of Others, Attend to Precision.

Conceptual Lens: _____

Appropriate Time Allocation (# of Days): 18 days (including game days)

Primary Core Content Standards referenced With Cumulative Progress Indicators			
Use place value understanding and properties of operations to add and subtract.	Tell and write time.	Represent and interpret data.	Reason with shapes and their attributes.
Construct Viable Arguments and Critique the Reasoning of Others.	Attend to Precision.		

Topics/Concepts (Incl. time / # days per topic)	Critical Content (Students Will Know:)	Skill Objectives (Students Will Be Able To:)	Instructional/Learning Activities & Interdisciplinary Connections	Instructional Resources	Technology & 21 st C Skills Integration (Specify)	NJCCCS w/ CPI Reference	Evaluation/ Assessment:
<p>In this unit, children learn about attributes of shapes, compose and decompose composite shapes, and divide shapes into halves and fourths. Children also continue to practice telling time and writing time, work with bar graphs, and use their understanding of place value and properties of operations to add and subtract larger numbers. Children’s learning will focus on four clusters of the Common Core’s content standards, as</p>	<ul style="list-style-type: none"> Solve addition and subtraction facts within 10 Apply place value understanding to solve number-grid puzzles Mentally find 10 more or 10 less than a two-digit number Tell time to the half hour on digital and analog clocks Represent and answer questions about data in bar graphs and tally charts Name defining attributes of 	<ul style="list-style-type: none"> Add and subtract within 20 using strategies such as making 10, relationship between add/sub, creating easier known sums Understand that the two digits of a two-digit number represent amounts of tens and ones Find 10 more or 10 less than a given number without having to count Tell and write time in hours and half hours using analog and digital clocks Organize, represent, and interpret data with up to 3 categories and ask and answer questions Distinguish between 	<p><i>Literature Link</i></p> <ul style="list-style-type: none"> 8.1 Children draw shapes with four sides and four square corners after listening to <u>Round is a Mooncake.</u> 8.2 Children show how to divide an apple into two equal pieces after reading the story <u>Rabbit and Hare Divide an Apple.</u> See Activity Card 95 Children draw pictures of food they can share and how they would share it after reading <u>The Little Mouse, the red Ripe Strawberry, and the Big Hungry Bear</u> See Activity Card 96. 8.3 Children create and label new shapes as wholes, halves and fourths. Then read and examine pictures in the story <u>Picture Pie: A Circle Drawing Book</u> 	<ul style="list-style-type: none"> Unit 8 Geometry TM 672-761 EM Journal Games Tool Kit with Manipulatives Class Number Line Class Number Grid Literature Link Books 	<ul style="list-style-type: none"> Everyday Math Online Web http://www.everydaymath.com Shape Sorter http://www.primarygames.com/puzzles/match_up/shape_match/start.htm Pattern Mania http://www.primarygames.com/patterns/start.htm Number Cracker http://www.funbrain.com/cracker/index.html What Time Is It? http://www.primarygames.com/time/start.htm Take It Away http://www.primarygames.com/takeaway/start.htm The Number Game http://www.primarygames.com/Number%20Game/start.htm What Comes Next? http://www.learningplanet.com/act/123order.asp Squigly’s Apples 	<p>Standards for Mathematical Content</p> <p>1.OA.6 1.NBT.2 1.NBT.5 1.MD.3 1.MD.4 1.G.1 1.G.2 1.G.3</p> <p>Standards for Mathematical Practice</p> <p>SMP3 SMP6</p>	<p>Formative Assessments:</p> <ul style="list-style-type: none"> Self-Assessment Unit Assessment Unit Challenge Open Response Assessment <p>Timed Tests (Facts to 10) Pre- and Post- Tests administered at the beginning and end of each Marking Period.</p> <ul style="list-style-type: none"> Addition Subtraction <p>Summative Assessment(s)</p> <ul style="list-style-type: none"> Oral and slate assessments through Mental Math and Fluency, games, calendar routine Fact Practice Activities Home Links

Topics/Concepts (Incl. time / # days per topic)	Critical Content (Students Will Know:)	Skill Objectives (Students Will Be Able To:)	Instructional/Learning Activities & Interdisciplinary Connections	Instructional Resources	Technology & 21 st C Skills Integration (Specify)	NJCCCS w/ CPI Reference	Evaluation/ Assessment:
<p>well as in-depth work on two of the Mathematical Purposes.</p> <ul style="list-style-type: none"> • Use place value understanding and properties of operations to add and subtract. • Tell and write time. • Represent and interpret data. • Reason with shapes and their attributes. • Construct Viable Arguments and Critique the Reasoning of Others. • Attend to Precision. 	<p>two- and three-dimensional shapes</p> <ul style="list-style-type: none"> • Make composite shapes from two-dimensional shapes • Partition shapes into two and four equal shares and name the shares 	<p>defining attributes versus non-defining attributes, build and draw shapes to possess defining attributes</p> <ul style="list-style-type: none"> • Compose two-dimensional or three-dimensional shapes to create a composite shape and compose new shapes from the composite shape • Divide circles and rectangles into two and four equal shares, describe the shares using halves, fourths, and quarters 	<p>See Activity Card 97.</p> <p><i>Science</i></p> <ul style="list-style-type: none"> • Children follow the daily Temperature (TM 26-31) and Weather (TM 22-25) Routines. <p>Math Stations</p>		<p>http://www.primarygames.com/squigly/start.htm</p> <ul style="list-style-type: none"> • Math Baseball http://www.funbrain.com/math/index.html • Spending Spree http://www.primarygames.com/Spending%20Spree/start.htm • One False Move http://www.funbrain.com/ofm/index.html • Base Ten Fun http://www.abcya.com/base_ten_fun.htm • Place Value Crocodile http://mathgames4children.com/fun-board-games/2nd-grade/crocs/place-value-crocodile-board-game-grade-1-game.html • Place Value-Shark Numbers http://www.ictgames.com/sharkNumbers/sharkNumbers_v5.html <p>ENRICHMENT</p> <ul style="list-style-type: none"> • Base Ten Count http://edbydesign.com/btcourt.html <p>FACT PRACTICE WEBSITES: T=Teacher, S=Student</p> <p>www.worksheets.com (T) www.worksheetfun.com (T) www.superteacherworksheets.com (T) www.mathfactcafe.com (T) www.multiplication.com (S) www.gamequarium.com (S) www.coolmath.com (S) www.factmonster.com (S)</p>		Exit Slips

Topics/Concepts (Incl. time / # days per topic)	Critical Content (Students Will Know:)	Skill Objectives (Students Will Be Able To:)	Instructional/Learning Activities & Interdisciplinary Connections	Instructional Resources	Technology & 21st C Skills Integration (Specify)	NJCCCS w/ CPI Reference	Evaluation/ Assessment:
					www.freeology.com (T) www.funbrain.com (S) www.AAAMath.com (S) www.bigbrainz.com (T & S) www.mathplayground.com (S) www.abcteach.com (T) www.kidscarnival.com (S) •		

Unit Modifications for Special Population Students:

Struggling Learners	Gifted and Talented Students (Challenge Activities)	English Language Learners	Special Education Students
8.1 Guessing the Shape.	8.1 Comparing 2-Dimensional Shapes.	8.1 Review defining attributes w guessing game asking Yes/No questions.	8.1 Guessing the Shape.
8.2 Determining Equal Shares.	8.2 Dividing an Apple.	8.2 Use real objects to reinforce terms equal and unequal.	8.2 Determining Equal Shares.
8.3 Folding Paper Pizzas.	8.3 Making Rectangle Designs.	8.3 Use real objects to reinforce <i>whole of an object and part of an object</i> . Also review hole/whole.	8.3 Folding Paper Pizzas.
8.5 Drawing Shapes with Defining Attributes.	8.5 Shape Challenges with Triangles.	8.5 Teach/play game without divider folder to reinforce concept.	8.5 Drawing Shapes with Defining Attributes.
8.6 Identifying Shapes Using Touch	8.6 Comparing 3-Dimensional Shapes.	8.6 Use shapes/blocks to describe attributes and find shapes without those attributes.	8.6 Identifying Shapes Using Touch
8.7 Describing and Naming 3-Dimensional Shapes	8.7 My New Shape.	8.7 Provide word cards to match 3D shapes.	8.7 Describing and Naming 3-Dimensional Shapes
8.8 Hickory Dickory Dock with Clocks.	8.8 Ordering Clocks by Times.	8.8 Intro phrase <i>set the clock</i> and show with time real clock.	8.8 Hickory Dickory Dock with Clocks.
8.9 Completing a Bar Graph.	8.9 Data with 4 Categories.	8.9 Use hand gestures to show the natural rise and fall in your voice when speaking and asking & answering questions.	8.9 Completing a Bar Graph.
8.10 Pinning the Number on the Number Grid.	8.10 Solving Number Codes.	8.10 Review term missing with real objects, then relate to a missing number on the number grid.	8.10 Pinning the Number on the Number Grid.
8.11 Adding and Subtracting Longs.	8.11 Adding and Subtracting 9's.	8.11 Model the meaning of <i>find the answer mentally</i> by closing your eyes & thinking.	8.11 Adding and Subtracting Longs.

UNIT OVERVIEW

Course Title: Everyday Mathematics (EDM 4) CCSS (2014)

Unit #: UNIT 9 OVERVIEW

Unit Title: Two-Digit Addition and Subtraction and Review

Unit Description and Objectives:

In this unit, children focus on adding and subtracting with 2-digit numbers. They also review other topics. Children’s learning will focus on five clusters of the Common Core’s content standards, as well as in-depth work on two of the Mathematical Purposes.

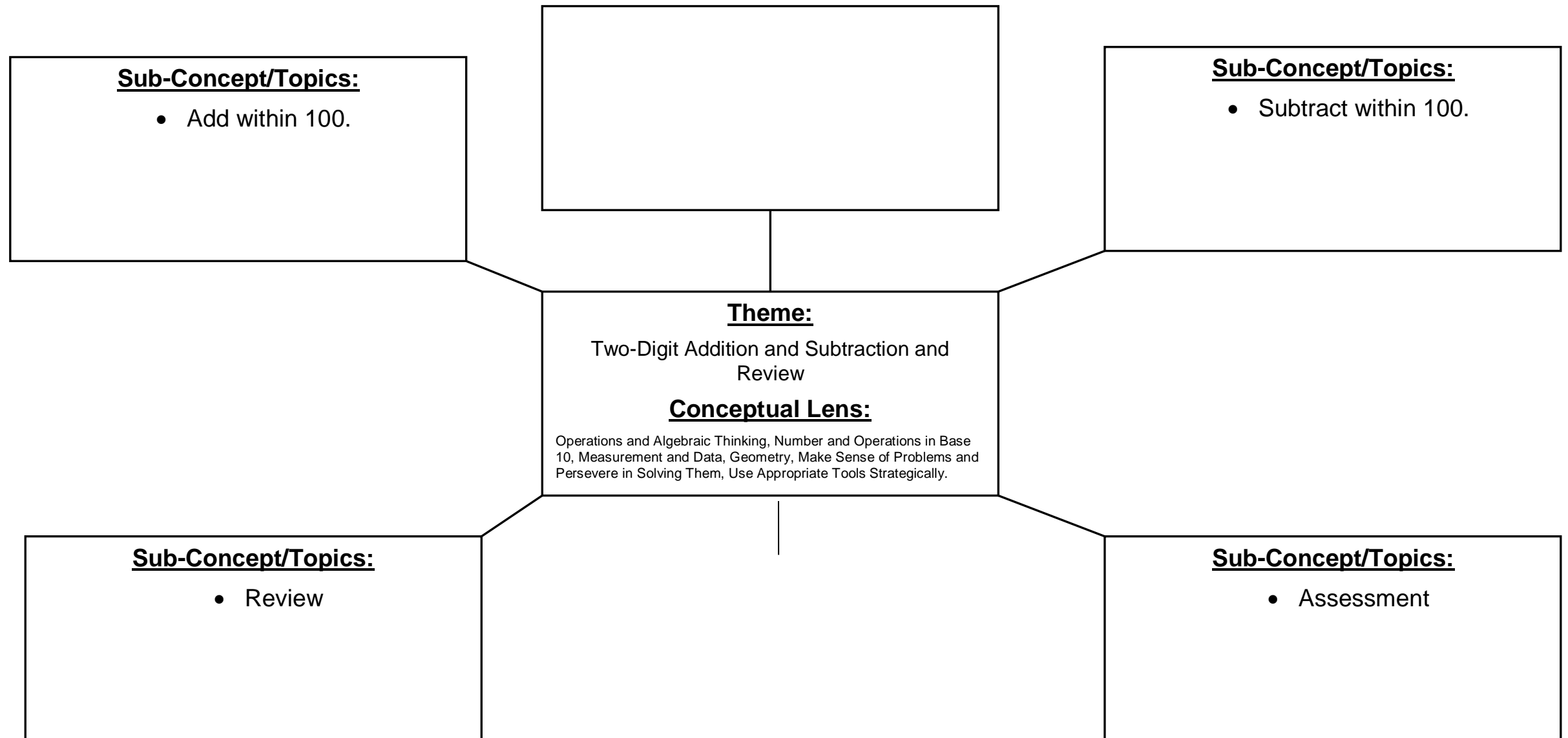
Routines are introduced that will be followed both throughout the school year and in later grades. These routines provide classroom structure for teachers and children to begin working on a number of rich mathematical activities together.

Essential Questions and Enduring Understandings:

Essential Questions:	<u>Enduring Understandings/Generalizations</u> Students will understand that:	Guiding Questions
1. How can we understand the equal sign and determine if equations involving addition and subtraction are true or false?	1. determining the meaning of the equal sign they will determine whether equations involving addition and subtraction are true or false.	9.1 How can we use paper clips as rulers to measure objects?
2. How can we understand that the 2 digits of a 2 digit number represent amounts of tens and ones?	2. identifying the number of tens and ones in a two digit number and the value of the digit in each place.	9.2 How can we tell, model, and solve number stories with 2 and 3 addends?
3. How can we compare 2 two digit numbers based on tens and ones and record the results of the comparison with relation symbols?	3. understanding place value to record comparisons of two digit numbers using relation symbols.	9.3 How can we find the total cost of 3 items and explain strategies?
4. How can we add within 100 using different strategies and different types of numbers?	4. adding within 100 by using concrete models or drawings, strategies based on	9.4 How can we generate equivalent names for numbers in broken calculator problems?

	place value, properties of operations, relationship between addition & subtraction.	How can we divide rectangles into equal parts? How can we conduct a Final Facts inventory?
5. How can we subtract multiples of 10 in the range of 10-90 using concrete models, drawings or strategies based on place value?	5. subtracting multiples of 10 from multiples of 10 within 100 using concrete models, drawings or strategies.	9.5 How can we apply a variety of strategies to add and subtract 2 digit numbers?
6. How can we express the length of an object as a whole number of length units?	6. measuring the length of an object with same size units with no gaps or overlaps.	9.6 How can we use addition and subtraction strategies to solve comparison number stories?
7. How can we compose 2 dimensional shapes or 3 dimensional shapes to create a composite shape?	7. constructing composite shapes from two and three dimensional shapes then compose new shapes from the composite shapes.	9.7 How can we choose and use tools and strategies to solve addition and subtraction number stories?
8. How can we partition circles and rectangles into 2 and 4 equal shares and describe the shares?	8. partition shapes into two or four equal shares, describe the shares, and understand that making more equal shares results in smaller shares.	9.8 How can we use relationship symbols to compare sums of prices?
		9.9 How can we use our understanding of place value to solve number grid puzzles?
		9.10 How can we review defining attributes and names of 3-dimensional shapes? How can we form composite shapes from the 3-dimensional shapes?
		9.11 How can we review dividing shapes into 2 and 4 equal shares, naming one share and naming the whole?

UNIT GRAPHIC ORGANIZER



CURRICULUM UNIT PLAN

Course Title/Grade: Everyday Mathematics (EDM 4) CCSS (2014)

Unit Number/Title: Unit 9 - Two-Digit Addition and Subtraction and Review

Conceptual Lens: Operations and Algebraic Thinking, Number and Operations in Base 10, Measurement and Data, Geometry, Make Sense of Problems and Persevere in Solving Them, Use Appropriate Tools Strategically

Appropriate Time Allocation (# of Days): 18 days (including game days)

Primary Core Content Standards referenced With Cumulative Progress Indicators			
Represent and solve problems involving addition and subtraction.	Understand place value.	Use place value understanding and properties of operations to add and subtract.	Measure lengths indirectly and by iterating length units.
Reason with shapes and their attributes.	Make Sense of Problems and Persevere in Solving Them.	Use Appropriate Tools Strategically.	

Topics/Concepts (Incl. time / # days per topic)	Critical Content (Students Will Know:)	Skill Objectives (Students Will Be Able To:)	Instructional/Learning Activities & Interdisciplinary Connections	Instructional Resources	Technology & 21 st C Skills Integration (Specify)	NJCCCS w/ CPI Reference	Evaluation/ Assessment:
<p>In this unit, children focus on adding and subtracting with 2-digit numbers. They also review other topics. Children’s learning will focus on five clusters of the Common Core’s content standards, as well as in-depth work on two of the Mathematical Purposes.</p> <ul style="list-style-type: none"> • Represent and solve problems involving addition and subtraction. • Understand place value. • Use place value understanding and properties of 	<ul style="list-style-type: none"> • Determine whether equations involving addition and subtraction are true or false • Identify the number of tens and ones in a two-digit number and the value of the digit in each place • Use place-value understanding to record comparisons of two-digit numbers using relation symbols • Add within 100 and explain their 	<ul style="list-style-type: none"> • Understand the meaning of the equal sign and determine whether equations involving addition and subtraction are true or false • Understand that the two digits of a two digit number represent amounts of tens and ones • Compare two two-digit numbers based on tens and ones and record the results with relation symbols • Add within 100, including adding a two-digit number and a one-digit number, adding a multiple of 10. Understand that in adding two-digit 	<p><i>Science</i></p> <ul style="list-style-type: none"> • Children follow the daily Temperature (TM 26-31) and Weather (TM 22-25) Routines. <p>Math Stations</p>	<ul style="list-style-type: none"> • Unit 9 Two-Digit Addition and Subtraction and Review TM 762-851 • EM Journal • Games • Tool Kit with Manipulatives • Class Number Line • Class Number Grid 	<ul style="list-style-type: none"> • Everyday Math Online Web http://www.everydaymath.com • Shape Sorter http://www.primarygames.com/puzzles/match_up/shape_match/start.htm • Pattern Mania http://www.primarygames.com/patterns/start.htm • Number Cracker http://www.funbrain.com/cracker/index.html • What Time Is It? http://www.primarygames.com/time/start.htm • Take It Away http://www.primarygames.com/takeaway/start.htm • The Number Game http://www.primarygames.com/Number%20Game/start.htm • What Comes Next? http://www.learningplanet.com/act/123order.asp • Squigly’s Apples http://www.primarygames.com/s 	<p>Standards for Mathematical Content</p> <p>1.OA.7 1.NBT.2 1.NBT.3 1.NBT.4 1.NBT.6 1.MD.2 1.G.2 1.G.3</p> <p>Standards for Mathematical Practice</p> <p>SMP1 SMP5</p>	<p>Formative Assessments:</p> <p>Progress Check</p> <ul style="list-style-type: none"> • Self-Assessment • Unit Assessment • Unit Challenge • Open Response Assessment <p>Timed Tests (Facts to 10) Pre- and Post- Tests administered at the beginning and end of each Marking Period.</p> <ul style="list-style-type: none"> • Addition • Subtraction <p>Summative Assessment(s)</p> <ul style="list-style-type: none"> • Oral and slate assessments through Mental Math and Fluency, games, calendar routine • Fact Practice Activities

Topics/Concepts (Incl. time / # days per topic)	Critical Content (Students Will Know:)	Skill Objectives (Students Will Be Able To:)	Instructional/Learning Activities & Interdisciplinary Connections	Instructional Resources	Technology & 21 st C Skills Integration (Specify)	NJCCCS w/ CPI Reference	Evaluation/ Assessment:
<p>operations to add and subtract.</p> <ul style="list-style-type: none"> Measure lengths indirectly and by iterating length units. Reason with shapes and their attributes. Make Sense of Problems and Persevere in Solving Them. Use Appropriate Tools Strategically. 	<p>strategies</p> <ul style="list-style-type: none"> Subtract multiples of 10 from multiples of 10 within 100 and explain their strategies Measure the length of an object with same size units Construct composite shapes from two- and three-dimensional shapes Partition shapes into two or four equal shares, describe the shares, and understand that making more equal shares results in smaller shares 	<p>numbers, one adds ones and ones, tens and tens and sometimes it is necessary to compose a ten.</p> <ul style="list-style-type: none"> Subtract multiples of 10 in the range of 10-90, use concrete models or drawings and strategies based on place value, properties of operations, or relationship between addition and sub Express the length of an object as a whole number, by laying multiple copies of a shorter object end to end with no gaps or overlaps Compose two-dimensional or three-dimensional shapes to create a composite shape and compose new shapes from the composite shape Partition circles and rectangles into two and four equal shares, describe the shares using halves, fourths, and quarters 		<ul style="list-style-type: none"> Literature Link Books 	<p>quigly/start.htm</p> <ul style="list-style-type: none"> Math Baseball http://www.funbrain.com/math/index.html Spending Spree http://www.primarygames.com/Spending%20Spree/start.htm One False Move http://www.funbrain.com/ofm/index.html Base Ten Fun http://www.abcya.com/base_ten_fun.htm Place Value Crocodile http://mathgames4children.com/fun-board-games/2nd-grade/crocs/place-value-crocodile-board-game-grade-1-game.html Place Value-Shark Numbers http://www.ictgames.com/sharkNumbers/sharkNumbers_v5.html <p>ENRICHMENT</p> <ul style="list-style-type: none"> Base Ten Count http://edbydesign.com/btcount.html <p>FACT PRACTICE WEBSITES: T=Teacher, S=Student</p> <p>www.worksheets.com (T) www.worksheetfun.com (T) www.superteacherworksheets.com (T) www.mathfactcafe.com (T) www.multiplication.com (S) www.gamequarium.com (S) www.coolmath.com (S) www.factmonster.com (S) www.freeology.com (T)</p>		<ul style="list-style-type: none"> Home Links Exit Slips

Topics/Concepts (Incl. time / # days per topic)	Critical Content (Students Will Know:)	Skill Objectives (Students Will Be Able To:)	Instructional/Learning Activities & Interdisciplinary Connections	Instructional Resources	Technology & 21st C Skills Integration (Specify)	NJCCCS w/ CPI Reference	Evaluation/ Assessment:
					www.funbrain.com (S) www.AAAmath.com (S) www.bigbrainz.com (T & S) www.mathplayground.com (S) www.abcteach.com (T) www.kidscarnival.com (S)		

Unit Modifications for Special Population Students:

Struggling Learners	Gifted and Talented Students (Challenge Activities)	English Language Learners	Special Education Students
9.1 Measuring Body Parts.	9.1 Making a Digital Ruler	9.1 Use visuals and actions to show terms <i>tall & high</i> refer to height. Provide Q&A sentence frames for oral practice.	9.1 Measuring Body Parts.
9.2 Matching Number Stories to Number Sentences.	9.2 Spending Money at the School Store.	9.2 Use pictures and real objects to tell number stories.	9.2 Matching Number Stories to Number Sentences.
9.4 Reviewing Name-Collection Boxes.	9.4 More Broken Calculator Problems	9.4 Intro <i>broken and not broken</i> with real objects.	9.4 Reviewing Name-Collection Boxes.
9.5 Practicing 2-Digit Addition and Subtraction.	9.5 Making Change	9.5 Intro vending machines & food using posters and pictures.	9.5 Practicing 2-Digit Addition and Subtraction.
9.6 Practice Counting Up to Subtract.	9.6 Make Your Own Vending Machine.	9.6 Pair ELL student w/ English proficient student to make “purchases” and solve & record their work.	9.6 Practice Counting Up to Subtract.
9.7 Adding and Subtracting with the Number Grid.	9.7 Playing Animal Weight Top-It.	9.7 Use concrete objects for Mental Math & Fluency.	9.7 Adding and Subtracting with the Number Grid.
9.8 Reviewing Relation Symbols.	9.8 Spending 50 cents.	9.8 Show real tools (hammer, etc) and then relate to Math tools.	9.8 Reviewing Relation Symbols.
9.9 Telling Place Value Riddles.	9.9 Writing Numbers in Expanded Form.	9.9 Teach the terms most & fewest using money examples and gestures.	9.9 Telling Place Value Riddles.
9.10 Playing “I Spy.”	9.10 Constructing Regular Polyhedrons.	9.10 Provide unique visuals for geometry terms such as writing the word <i>curved</i> in the shape of a C.	9.10 Playing “I Spy.”
9.11 Reviewing Equal Shares.	9.11 More Equal Sharing Problems	9.11 Demonstrate how to share items by cutting them into as many parts as people who want to share, then count the shares or parts.	9.11 Reviewing Equal Shares.

CROSS-CONTENT STANDARDS ANALYSIS

Course Title: Everyday Mathematics (EDM 4) CCSS (2014) Grade: First

Unit Title:	Visual and Performing Arts	Comp. Health & Physical Ed.	English Language Arts	Mathematics	Science	Social Studies	World Languages	Technology	21 st Century Life & Careers
Unit 1	1.1.2.A.4, 1.1.2.D.1, 1.3.P.A.1-4, 1.3.P.B.1&3&4, 1.3.P.D.2&5,	2.1.2.E.2, 2.2.2.D.1, 2.4.2.A.1, 2.4.2.B.1, 2.5.P.A.1-3, 2.5.2.A.1&3, 2.5.2.B.1&4, 2.5.4.B.2, 2.5.2.C.1-2, 2.6.P.A.1-2,	SL1.1, SL 1.2, SL 1.3, SL 1.5, W 1.5, W 1.8		5.1.P.D.1, 5.1.4.D.1, 5.1.P.C.1, 5.4.P.F.1, 5.4.2.F.1, 5.4.4.F.1	6.1.2.A.5, 6.1.4.A.3-4, 6.5.2.A.3, 6.6.2.E.2,		8.1.P.A.1-5, 8.1.2.A.4&7, 8.1.P.C.1, 8.1.2.C.1, 8.1.P.E.1, 8.1.2.E.1, 8.2.2.B.1, 8.2.2.E.3&5	9.1.4.E.2, 9.2.4.A.4, 9.3.12.ED.1&5, 9.3.12.ED-TT.5, 9.3.ST.2, 9.3.ST-SM.4
Unit 2	1.1.2.A.4, 1.1.2.D.1, 1.3.P.A.1-4, 1.3.P.B.1&3&4, 1.3.P.D.2&5,	2.1.2.E.2, 2.2.2.D.1, 2.4.2.A.1, 2.4.2.B.1, 2.5.P.A.1-3, 2.5.2.A.1&3, 2.5.2.B.1&4, 2.5.4.B.2, 2.5.2.C.1-2, 2.6.P.A.1-2,	SL1.1, SL 1.2, SL 1.3, SL 1.5, W 1.5, W 1.8		5.1.P.D.1, 5.1.4.D.1, 5.1.P.C.1, 5.4.P.F.1, 5.4.2.F.1, 5.4.4.F.1	6.1.2.A.5, 6.1.4.A.3-4, 6.5.2.A.3, 6.6.2.E.2,		8.1.P.A.1-5, 8.1.2.A.4&7, 8.1.P.C.1, 8.1.2.C.1, 8.1.P.E.1, 8.1.2.E.1, 8.2.2.B.1, 8.2.2.E.3&5	9.1.4.E.2, 9.2.4.A.4, 9.3.12.ED.1&5, 9.3.12.ED-TT.5, 9.3.ST.2, 9.3.ST-SM.4
Unit 3	1.1.2.A.4, 1.1.2.D.1, 1.3.P.A.1-4, 1.3.P.B.1&3&4, 1.3.P.D.2&5,	2.1.2.E.2, 2.2.2.D.1, 2.4.2.A.1, 2.4.2.B.1, 2.5.P.A.1-3, 2.5.2.A.1&3, 2.5.2.B.1&4, 2.5.4.B.2, 2.5.2.C.1-2, 2.6.P.A.1-2,	SL1.1, SL 1.2, SL 1.3, SL 1.5, W 1.5, W 1.8		5.1.P.D.1, 5.1.4.D.1, 5.1.P.C.1, 5.4.P.F.1, 5.4.2.F.1, 5.4.4.F.1	6.1.2.A.5, 6.1.4.A.3-4, 6.5.2.A.3, 6.6.2.E.2,		8.1.P.A.1-5, 8.1.2.A.4&7, 8.1.P.C.1, 8.1.2.C.1, 8.1.P.E.1, 8.1.2.E.1, 8.2.2.B.1, 8.2.2.E.3&5	9.1.4.E.2, 9.2.4.A.4, 9.3.12.ED.1&5, 9.3.12.ED-TT.5, 9.3.ST.2, 9.3.ST-SM.4
Unit 4	1.1.2.A.4, 1.1.2.D.1, 1.3.P.A.1-4, 1.3.P.B.1&3&4, 1.3.P.D.2&5,	2.1.2.E.2, 2.2.2.D.1, 2.4.2.A.1, 2.4.2.B.1, 2.5.P.A.1-3, 2.5.2.A.1&3, 2.5.2.B.1&4, 2.5.4.B.2, 2.5.2.C.1-2, 2.6.P.A.1-2,	SL1.1, SL 1.2, SL 1.3, SL 1.5, W 1.5, W 1.8		5.1.P.D.1, 5.1.4.D.1, 5.1.P.C.1, 5.4.P.F.1, 5.4.2.F.1, 5.4.4.F.1	6.1.2.A.5, 6.1.4.A.3-4, 6.5.2.A.3, 6.6.2.E.2,		8.1.P.A.1-5, 8.1.2.A.4&7, 8.1.P.C.1, 8.1.2.C.1, 8.1.P.E.1, 8.1.2.E.1, 8.2.2.B.1, 8.2.2.E.3&5	9.1.4.E.2, 9.2.4.A.4, 9.3.12.ED.1&5, 9.3.12.ED-TT.5, 9.3.ST.2, 9.3.ST-SM.4
Unit 5	1.1.2.A.4, 1.1.2.D.1, 1.3.P.A.1-4, 1.3.P.B.1&3&4, 1.3.P.D.2&5,	2.1.2.E.2, 2.2.2.D.1, 2.4.2.A.1, 2.4.2.B.1, 2.5.P.A.1-3, 2.5.2.A.1&3, 2.5.2.B.1&4, 2.5.4.B.2, 2.5.2.C.1-2, 2.6.P.A.1-2,	SL1.1, SL 1.2, SL 1.3, SL 1.5, W 1.5, W 1.8		5.1.P.D.1, 5.1.4.D.1, 5.1.P.C.1, 5.4.P.F.1, 5.4.2.F.1, 5.4.4.F.1	6.1.2.A.5, 6.1.4.A.3-4, 6.5.2.A.3, 6.6.2.E.2,		8.1.P.A.1-5, 8.1.2.A.4&7, 8.1.P.C.1, 8.1.2.C.1, 8.1.P.E.1, 8.1.2.E.1, 8.2.2.B.1, 8.2.2.E.3&5	9.1.4.E.2, 9.2.4.A.4, 9.3.12.ED.1&5, 9.3.12.ED-TT.5, 9.3.ST.2, 9.3.ST-SM.4
Unit 6	1.1.2.A.4, 1.1.2.D.1, 1.3.P.A.1-4, 1.3.P.B.1&3&4, 1.3.P.D.2&5,	2.1.2.E.2, 2.2.2.D.1, 2.4.2.A.1, 2.4.2.B.1, 2.5.P.A.1-3, 2.5.2.A.1&3, 2.5.2.B.1&4, 2.5.4.B.2, 2.5.2.C.1-2, 2.6.P.A.1-2,	SL1.1, SL 1.2, SL 1.3, SL 1.5, W 1.5, W 1.8		5.1.P.D.1, 5.1.4.D.1, 5.1.P.C.1, 5.4.P.F.1, 5.4.2.F.1, 5.4.4.F.1	6.1.2.A.5, 6.1.4.A.3-4, 6.5.2.A.3, 6.6.2.E.2,		8.1.P.A.1-5, 8.1.2.A.4&7, 8.1.P.C.1, 8.1.2.C.1, 8.1.P.E.1, 8.1.2.E.1, 8.2.2.B.1, 8.2.2.E.3&5	9.1.4.E.2, 9.2.4.A.4, 9.3.12.ED.1&5, 9.3.12.ED-TT.5, 9.3.ST.2, 9.3.ST-SM.4
Unit 7	1.1.2.A.4, 1.1.2.D.1, 1.3.P.A.1-4, 1.3.P.B.1&3&4, 1.3.P.D.2&5,	2.1.2.E.2, 2.2.2.D.1, 2.4.2.A.1, 2.4.2.B.1, 2.5.P.A.1-3, 2.5.2.A.1&3, 2.5.2.B.1&4, 2.5.4.B.2, 2.5.2.C.1-2, 2.6.P.A.1-2,	SL1.1, SL 1.2, SL 1.3, SL 1.5, W 1.5, W 1.8		5.1.P.D.1, 5.1.4.D.1, 5.1.P.C.1, 5.4.P.F.1, 5.4.2.F.1, 5.4.4.F.1	6.1.2.A.5, 6.1.4.A.3-4, 6.5.2.A.3, 6.6.2.E.2,		8.1.P.A.1-5, 8.1.2.A.4&7, 8.1.P.C.1, 8.1.2.C.1, 8.1.P.E.1, 8.1.2.E.1, 8.2.2.B.1, 8.2.2.E.3&5	9.1.4.E.2, 9.2.4.A.4, 9.3.12.ED.1&5, 9.3.12.ED-TT.5, 9.3.ST.2, 9.3.ST-SM.4
Unit 8	1.1.2.A.4, 1.1.2.D.1, 1.3.P.A.1-4, 1.3.P.B.1&3&4, 1.3.P.D.2&5,	2.1.2.E.2, 2.2.2.D.1, 2.4.2.A.1, 2.4.2.B.1, 2.5.P.A.1-3, 2.5.2.A.1&3, 2.5.2.B.1&4, 2.5.4.B.2, 2.5.2.C.1-2, 2.6.P.A.1-2,	SL1.1, SL 1.2, SL 1.3, SL 1.5, W 1.5, W 1.8		5.1.P.D.1, 5.1.4.D.1, 5.1.P.C.1, 5.4.P.F.1, 5.4.2.F.1, 5.4.4.F.1	6.1.2.A.5, 6.1.4.A.3-4, 6.5.2.A.3, 6.6.2.E.2,		8.1.P.A.1-5, 8.1.2.A.4&7, 8.1.P.C.1, 8.1.2.C.1, 8.1.P.E.1, 8.1.2.E.1, 8.2.2.B.1, 8.2.2.E.3&5	9.1.4.E.2, 9.2.4.A.4, 9.3.12.ED.1&5, 9.3.12.ED-TT.5, 9.3.ST.2, 9.3.ST-SM.4
Unit 9	1.1.2.A.4, 1.1.2.D.1, 1.3.P.A.1-4, 1.3.P.B.1&3&4, 1.3.P.D.2&5,	2.1.2.E.2, 2.2.2.D.1, 2.4.2.A.1, 2.4.2.B.1, 2.5.P.A.1-3, 2.5.2.A.1&3, 2.5.2.B.1&4, 2.5.4.B.2, 2.5.2.C.1-2, 2.6.P.A.1-2,	SL1.1, SL 1.2, SL 1.3, SL 1.5, W 1.5, W 1.8		5.1.P.D.1, 5.1.4.D.1, 5.1.P.C.1, 5.4.P.F.1, 5.4.2.F.1, 5.4.4.F.1	6.1.2.A.5, 6.1.4.A.3-4, 6.5.2.A.3, 6.6.2.E.2,		8.1.P.A.1-5, 8.1.2.A.4&7, 8.1.P.C.1, 8.1.2.C.1, 8.1.P.E.1, 8.1.2.E.1, 8.2.2.B.1, 8.2.2.E.3&5	9.1.4.E.2, 9.2.4.A.4, 9.3.12.ED.1&5, 9.3.12.ED-TT.5, 9.3.ST.2, 9.3.ST-SM.4

*All core content areas may not be applicable in a particular course.

**Washington Township Public Schools
Department of Student Personnel Services**

CURRICULUM MODIFICATION

The regular curriculum is modified for Special Education students enrolled in both self-contained and resource center classes.

Modifications address individual learning rates, styles, needs and the varying abilities of all special populations served in the programs available in the district.

The intent is three-fold:

- To provide alternative materials, techniques and evaluation criteria to address the range of students' needs;
- To parallel the regular curriculum in skill, content sequence and coverage to prepare students for mainstreaming;
- To maximize students' potential for movement to less restrictive environments.

In the event there is a conflict between the prescribed curriculum and the IEP for an individual student, the IEP will take precedence and will constitute the individually prescribed proficiencies for the student.