COURSE CODE:		COURSE NAME: 1st Grade Math	
UNIT TITLE: Addition Concepts		**UNIT ESSENTIAL QUESTION:**	
SEMESTER: 1	**Grading Period: 1**	**How can you model adding within 10?**	
CONCEPT		**CONCEPT**	**CONCEPT**
Model Addition *Chapter 1 Lessons 1-4*		Add Zero and in Any Order *Chapter 1 Lessons 5-6*	Addition to 10 *Chapter 1 Lessons 7-8*
STANDARD(S)		**STANDARD(S)**	**STANDARD(S)**
MACC.K12.MP.4 Model with mathematics. **MACC.K12.MP.7 Look for and make use of structure.** **MACC.1.OA.1.1**: Use addition and subtraction within 20 to solves word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. **MACC.1.OA.4.7**: Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *For example, which of the following equations are true and which are false? 6=6, 7=8-1, 5+2=2+5, 4+1=5+2.*		**MACC.K12.MP.4 Model with mathematics.** **MACC.K12.MP.7 Look for and make use of structure.** **Understand and apply properties of operations and the relationship between addition and subtraction.** **MACC.1.OA.2.3** Apply properties of operations as strategies to add and subtract.	**MACC.K12.MP.4 Model with mathematics.** **MACC.K12.MP.7 Look for and make use of structure.** **MACC.1.OA.1.1**: Use addition and subtraction within 20 to solves word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. **Add and subtract within 20.** **MACC.1.OA.3.6**: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8+6=8+2+4=10+4=14); decomposing a number leading to a ten (e.g., 13-4=13-3-1=10-1=9); using the relationship between addition and subtraction (e.g., knowing that 8+4=12, one knows 12-8=4); and creating equivalent but easier or known sums (e.g., adding 6+7 by creating the known equivalent 6+6+1=12+1=13).

LESSON ESSENTIAL QUESTION	LESSON ESSENTIAL QUESTION	LESSON ESSENTIAL QUESTION
How can you model addition using pictures and strategies "adding to a group" and "putting together"?	What happens when you add 0 to a number? Why can you add addends in any order?	How can you show all the ways to make a number?
VOCABULARY	**VOCABULARY**	**VOCABULARY**
addition sentence-a number sentence where one number is added to another is equal to (=)-is a number or amount that is the same as plus (+)-added to sum-a number obtained as a result of addition add-find the sum of two or more numbers; find how many in all	zero-a number that when added to another number leaves the original number unchanged; a whole number that tells the number of objects in a set when none are present addends-numbers that are added to form a sum order-sequence or arrangement of things	

RESOURCES

Go Math! Level 1 Chapter 1: Student Edition, standards practice book, reteach, and enrich books, Grab-and-Go Centers Kit
Books:
The Class Party (found in Grab-and-Go kit)
Math Club (found in Grab-and-Go kit)
Join Us (found in Grab-and-Go kit)
Busy Bugs (found in Grab-and-Go kit)
The Hershey Kisses Addition Book by Jerry Pallotta
Domino Addition by Lynette Long *Additional Titles: http://www.the-best-childrens-books.org/teaching-addition.html*
www.youtube.com videos:
Add 'em Up Song http://www.youtube.com/watch?v=O_ccOKla2DA (Song for adding 1 more using blocks)
Addition Mini-Lesson pt. 1: http://www.youtube.com/watch?v=E7jzXUWupkU pt. 2: http://www.youtube.com/watch?v=r1OwEVuEB_E
Ways to Make 10 song: http://www.youtube.com/watch?v=XpoFxwKBwE8
Workshop Games (in addition to those provided in Grab & Go Kit) to be used in small group or adapted to whole-class:
Rainbow 10s: http://littlestscholars.blogspot.com/2012/03/ways-to-make-5-and-10rainbows-of-fun.html
Make Your Own Addition Fluency Practice Worksheets: http://www.mathfactcafe.com/worksheet/buildit/
Around the World (great game for whole class to help build facts fluency): http://www.proteacher.net/discussions/showthread.php?t=130051
Printable Games: http://www.sparklebox.co.uk/maths/calculations/addition-activities.html#.Ua59-4H4JZ1
Domino Top It: http://www.youtube.com/watch?v=LxnoMNHj9NM (tutorial)
M&M Addition: http://www.youtube.com/watch?v=RUuKyid7zD8 (tutorial)
Online Games (great to use if SmartBoard is available):
Addition within 10: http://more2.starfall.com/m/math/addition-content/load.htm?f&d=demo&n=machine-L1&y=1
Different Levels of Addition Games: http://resources.woodlands-junior.kent.sch.uk/maths/interactive/
Addition Games with Level 1 (up to 10) and Level 2 (up to 20): http://www.maths-games.org/adding-games.html

Additional Information

Assessments available through GoMath!: Mid-Chapter 1 Assessment (pg. 28 in SE), Chapter 1 Assessment (Assessment Guide or GoMath online), and Performance Task (pg. 48 in SE) **Critical Area Project found on pages 1-8B in TE.** Look for Daily Routines to help review important skills daily.

COURSE CODE:		**COURSE NAME:** 1st Grade Math	
UNIT TITLE: Subtraction Concepts		**UNIT ESSENTIAL QUESTION:**	
SEMESTER: 1	**Grading Period: 1**	**How can you subtract numbers from 10 or less?**	
CONCEPT		**CONCEPT**	**CONCEPT**
Model Subtraction *Chapter 2 Lessons 1-4*		Subtract to Compare *Chapter 2 Lessons 5-6*	Subtraction from 10 *Chapter 2 Lessons 7-9*
STANDARD(S)		**STANDARD(S)**	**STANDARD(S)**
MACC.K12.MP.2 Reason abstractly and quantitatively. **MACC.K12.MP.5 Use appropriate tools strategically.** **MACC.1.OA.1.1**: Use addition and subtraction within 20 to solves word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. **MACC.1.OA.4.7**: Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *For example, which of the following equations are true and which are false? 6=6, 7=8-1, 5+2=2+5, 4+1=5+2.*		**MACC.K12.MP.2 Reason abstractly and quantitatively.** **MACC.K12.MP.5 Use appropriate tools strategically.** **Understand and apply properties of operations and the relationship between addition and subtraction.** **MACC.1.OA.2.3** Apply properties of operations as strategies to add and subtract.	**MACC.K12.MP.2 Reason abstractly and quantitatively.** **MACC.K12.MP.5 Use appropriate tools strategically.** **MACC.1.OA.1.1**: Use addition and subtraction within 20 to solves word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. **Add and subtract within 20.** **MACC.1.OA.3.6**: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8+6=8+2+4=10+4=14); decomposing a number leading to a ten (e.g., 13-4=13-3-1=10-1=9); using the relationship between addition and subtraction (e.g., knowing that 8+4=12, one knows 12-8=4); and creating equivalent but easier or known sums (e.g., adding 6+7 by creating the known equivalent 6+6+1=12+1=13).

LESSON ESSENTIAL QUESTION	LESSON ESSENTIAL QUESTION	LESSON ESSENTIAL QUESTION
How can you model subtraction using pictures and strategies "taking from" and "taking apart"?	How can you use pictures and models to compare and subtract?	How can you show all the ways to take apart a number? What happens when you subtract 0?
VOCABULARY	**VOCABULARY**	**VOCABULARY**
minus-a symbol that shows subtraction difference-the answer in a subtraction problem subtraction sentence-a number sentence where one number is subtracted from another subtract-to take away objects from a group or to compare groups	compare-to describe whether amounts or sizes are equal to, less than, or greater than each other fewer-smaller quantity or amount more-greater quantity or amount	

RESOURCES

Go Math! Level 1 Chapter 2: Student Edition, standards practice book, reteach, and enrich books, Grab-and-Go Centers Kit
Books:
The Class Party (found in Grab-and-Go kit)
Milk for Sale (found in Grab-and-Go kit)
Five Little Monkeys by Eileen Christelow (can be found here http://www.youtube.com/watch?v=xQRXlfp1t8A if book is unavailable)
Additional Titles: http://christchurchcitylibraries.com/learning/mathsinpictures/#Subtraction
www.youtube.com videos:
Five Little Monkeys Song/Dance (easy review subtracting 1 from numbers 1-5): http://www.youtube.com/watch?v=ZzPaL2X7diw
Ten In Bed Song (subtracting 1 from numbers 1-10): http://www.youtube.com/watch?v=2AoBR6nLBjE
When You Subtract with a Pirate: http://www.youtube.com/watch?v=v9dx2o7m6GI
Take Away – Subtraction Song: http://www.youtube.com/watch?v=PfgCBn6Dazc
Workshop Games (in addition to those provided in Grab & Go Kit) to be used in small group or adapted to whole-class:
Printable Games: http://www.sparklebox.co.uk/maths/calculations/subtraction-activities.html#.Ua6XwYH4JZ0
Around the World (great game for whole class to help build facts fluency): http://www.proteacher.net/discussions/showthread.php?t=130051
Make Your Own Subtraction Fluency Practice Worksheets: http://www.mathfactcafe.com/worksheet/buildit/
Online Games (great to use if SmartBoard is available):
Subtraction Games: http://www.fun4thebrain.com/subtraction.html
Links to More Games: http://www.internet4classrooms.com/skill_builders/subtracting_math_first_1st_grade.htm

Additional Information

Assessments available through GoMath!: Mid-Chapter 2 Assessment (pg. 28 in SE), Chapter 2 Assessment (Assessment Guide or GoMath online), and Performance Task (pg. 92 in SE) Look for Daily Routines to help review important skills daily.

COURSE CODE:		COURSE NAME: 1st Grade Math	
UNIT TITLE: Addition Strategies		**UNIT ESSENTIAL QUESTION:**	
SEMESTER: 1	**Grading Period: 1**	**How do you solve addition problems?**	
CONCEPT		**CONCEPT**	**CONCEPT**
Explore Addition Strategies *Chapter 3 Lessons 1 – 5*		Use Addition Strategies *Chapter 3 Lessons 6-9*	Add 3 Numbers and Word Problems *Chapter 3 Lessons 10-12*
STANDARD(S)		**STANDARD(S)**	**STANDARD(S)**
MACC.K12.MP.6 Attend to precision **MACC.K12.MP.8 Look for and express regularity in repeated reasoning.** **MACC.1.OA.2.3**: Apply properties of operations as strategies to add and subtract. *Examples: If 8+3=11 is known, then 3+8=11 is also known. (Commutative property of addition.) To add 2+6+4, the second two numbers can be added to make a ten. (Associative property of addition.)* **MACC.1.OA.3.5**: Relate accounting to addition and subtraction (e.g., by counting on 2 to add 2). **MACC.1.OA.3.6**: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8+6=8+2+4=10+4=14); decomposing a number leading to a ten (e.g., 13-4=13-3-1=10-1=9); using the relationship between addition and subtraction (e.g., knowing that 8+4=12, one knows 12-8=4); and creating equivalent but easier or known sums (e.g., adding 6+7 by creating the known equivalent 6+6+1=12+1=13). **MACC.1.OA.4.8**: Determine the unknown whole number in an addition or subtraction equation relating three whole numbers.		**MACC.K12.MP.6 Attend to precision** **MACC.K12.MP.8 Look for and express regularity in repeated reasoning.** **MACC.1.OA.3.6**: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8+6=8+2+4=10+4=14); decomposing a number leading to a ten (e.g., 13-4=13-3-1=10-1=9); using the relationship between addition and subtraction (e.g., knowing that 8+4=12, one knows 12-8=4); and creating equivalent but easier or known sums (e.g., adding 6+7 by creating the known equivalent 6+6+1=12+1=13). **MACC.1.OA.4.8**: Determine the unknown whole number in an addition or subtraction equation relating three whole numbers.	**MACC.K12.MP.6 Attend to precision** **MACC.K12.MP.8 Look for and express regularity in repeated reasoning.** **MACC.1.OA.3.6**: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8+6=8+2+4=10+4=14); decomposing a number leading to a ten (e.g., 13-4=13-3-1=10-1=9); using the relationship between addition and subtraction (e.g., knowing that 8+4=12, one knows 12-8=4); and creating equivalent but easier or known sums (e.g., adding 6+7 by creating the known equivalent 6+6+1=12+1=13). **MACC.1.OA.4.8**: Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. **MACC.1.OA.2.3**: Apply properties of operations as strategies to add and subtract. **MACC.1.OA.1.2**: Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

LESSON ESSENTIAL QUESTION	LESSON ESSENTIAL QUESTION	LESSON ESSENTIAL QUESTION
How can you use the strategies "add in any order", "count on", and "doubles" to help you add within 20?	What strategies can you use to solve addition fact problems?	How can you use "make a ten" and other strategies to help you add three numbers and solve addition word problems?
VOCABULARY	**VOCABULARY**	**VOCABULARY**
count on-to count forward from a given number **doubles**-an addition fact that includes two of the same number, such as 5+5	**doubles minus one**-an addition fact with a double to add and then subtract one, such as 5+4 **doubles plus one**-an addition fact with a double to add and then add one, such as 5+6 **make a ten**-a strategy that teaches children to isolate a ten first to help them add numbers whose sum is greater than ten	

RESOURCES

Go Math! Level 1 Chapter 3: Student Edition, standards practice book, reteach, and enrich books, Grab-and-Go Centers Kit

Books:

Join Us (found in Grab-and-Go kit)

Doubles Fun on the Farm (found in Grab-and-Go kit)

Funny Bunny Hats (found in Grab-and-Go kit)

www.youtube.com videos:

Adding Doubles Song (up to 5+5): http://www.youtube.com/watch?v=ljPKoNJH1Jg

Adding Doubles Song (up to 10+10): http://www.youtube.com/watch?v=yFuskIXXQa4

Ways to Make 10 song: http://www.youtube.com/watch?v=XpoFxwKBwE8

Workshop Games (in addition to those provided in Grab & Go Kit) to be used in small group or adapted to whole-class:

Butterfly Dice Game: http://www.youtube.com/watch?v=8O3pFvvvZ4A (tutorial for teacher)

Rainbow 10s: http://littlestscholars.blogspot.com/2012/03/ways-to-make-5-and-10rainbows-of-fun.html

Make Your Own Addition Fluency Practice Worksheets: http://www.mathfactcafe.com/worksheet/buildit/

Around the World (great game for whole class to help build facts fluency): http://www.proteacher.net/discussions/showthread.php?t=130051

Printable Games: http://www.sparklebox.co.uk/maths/calculations/addition-activities.html#.Ua59-4H4JZ1

Online Games (great to use if SmartBoard is available):

Addition within 10: http://more2.starfall.com/m/math/addition-content/load.htm?f&d=demo&n=machine-L1&y=1

Different Levels of Addition Games: http://resources.woodlands-junior.kent.sch.uk/maths/interactive/

Addition Games with Level 1 (up to 10) and Level 2 (up to 20): http://www.maths-games.org/adding-games.html

Additional Information

Assessments available through GoMath!: Mid-Chapter 3 Assessment (pg. 120 in SE), Chapter 3 Assessment (Assessment Guide or GoMath online), and Performance Task (pg. 148 in SE) Look for Daily Routines to help review important skills daily.

COURSE CODE:		**COURSE NAME:** 1st Grade Math		
UNIT TITLE: Subtraction Strategies		**UNIT ESSENTIAL QUESTION:**		
SEMESTER: 1	**Grading Period: 2**	**How do you solve subtraction problems?**		
CONCEPT		**CONCEPT**		**CONCEPT**
Use Addition to Subtract *Chapter 4 Lessons 1-2*		Break Apart and Use a 10 to Subtract *Chapter 4 Lessons 3-4*		Substraction Strategies *Chapter 4 Lessons 5-6*
STANDARD(S)		**STANDARD(S)**		**STANDARD(S)**
MACC.K12.MP.2 Reason abstractly and quantitatively. **MACC.K12.MP.4 Model with mathematics.** **Understand and apply properties of operations and the relationship between addition and subtraction.** **MACC.1.OA.2.4**: Understand subtraction as an unknown-addend problem. *For example, subtract 10-8 by finding the number that makes 10 when added to 8*. **MACC.1.OA.4.8**: Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8+?=11, 5=?-3, 6+6=?.*		**MACC.K12.MP.2 Reason abstractly and quantitatively.** **MACC.K12.MP.4 Model with mathematics.** **Understand and apply properties of operations and the relationship between addition and subtraction.** **MACC.1.OA.2.3** Apply properties of operations as strategies to add and subtract. **Add or subtract within 20.** **MACC.1.OA.3.6**: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8+6=8+2+4=10+4=14); decomposing a number leading to a ten (e.g., 13-4=13-3-1=10-1=9); using the relationship between addition and subtraction (e.g., knowing that 8+4=12, one knows 12-8=4); and creating equivalent but easier or known sums (e.g., adding 6+7 by creating the known equivalent 6+6+1=12+1=13). **MACC.1.OA.4.8**: Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8+?=11, 5=?-3, 6+6=?.*		**MACC.K12.MP.2 Reason abstractly and quantitatively.** **MACC.K12.MP.4 Model with mathematics.** **MACC.1.OA.3.6**: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8+6=8+2+4=10+4=14); decomposing a number leading to a ten (e.g., 13-4=13-3-1=10-1=9); using the relationship between addition and subtraction (e.g., knowing that 8+4=12, one knows 12-8=4); and creating equivalent but easier or known sums (e.g., adding 6+7 by creating the known equivalent 6+6+1=12+1=13). **MACC.1.OA.4.8**: Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8+?=11, 5=?-3, 6+6=?.* **MACC.1.OA.1.1**: Use addition and subtraction within 20 to solves word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	

LESSON ESSENTIAL QUESTION	LESSON ESSENTIAL QUESTION	LESSON ESSENTIAL QUESTION
How can you use addition to help you find the answer to a subtraction fact?	How can you use 'make a ten' and 'break apart a number' to help you subtract?	How can acting out a problem and counting back help you solve the problem?
VOCABULARY	**VOCABULARY**	**VOCABULARY**
		count back – to count backward from a given number

RESOURCES

Go Math! Level 1 Chapter 4: Student Edition, standards practice book, reteach, and enrich books, Grab-and-Go Centers Kit
Books:
Math Club (found in Grab-and-Go kit)
Miss Bumble's Garden (found in Grab-and-Go kit)
The Class Party (found in Grab-and-Go kit)
Additional Titles: http://christchurchcitylibraries.com/learning/mathsinpictures/#Subtraction
www.youtube.com videos:
Five Little Monkeys Song/Dance (counting back by 1 from numbers 1-5): http://www.youtube.com/watch?v=ZzPaL2X7diw
Ten In Bed Song (counting back by 1 from numbers 1-10): http://www.youtube.com/watch?v=2AoBR6nLBjE
When You Subtract with a Pirate: http://www.youtube.com/watch?v=v9dx2o7m6GI
Take Away – Subtraction Song: http://www.youtube.com/watch?v=PfgCBn6Dazc
Workshop Games (in addition to those provided in Grab & Go Kit) to be used in small group or adapted to whole-class:
Printable Games: http://www.sparklebox.co.uk/maths/calculations/subtraction-activities.html#.Ua6XwYH4JZ0
Around the World (great game for whole class to help build facts fluency): http://www.proteacher.net/discussions/showthread.php?t=130051
Make Your Own Subtraction Fluency Practice Worksheets: http://www.mathfactcafe.com/worksheet/buildit/
Online Games (great to use if SmartBoard is available):
Subtraction Games: http://www.fun4thebrain.com/subtraction.html
Links to More Games: http://www.internet4classrooms.com/skill_builders/subtracting_math_first_1st_grade.htm

Additional Information

Assessments available through GoMath!: Mid-Chapter 4 Assessment (pg. 164 in SE), Chapter 4 Assessment (Assessment Guide or GoMath online), and Performance Task (pg. 180 in SE) Look for Daily Routines to help review important skills daily

COURSE CODE:		COURSE NAME: 1st Grade Math	
UNIT TITLE: Addition and Subtraction Relationships		**UNIT ESSENTIAL QUESTION:**	
SEMESTER: 1	**Grading Period: 2**	**How can relating addition and subtraction help you to learn and understand facts within 20?**	
CONCEPT		**CONCEPT**	**CONCEPT**
Related Facts – Addition and Subtraction *Chapter 5 Lessons 1 - 4*		Finding Missing Numbers and Operations *Chapter 5 Lessons 5 - 7*	Facts to 20 *Chapter 5 Lessons 8 - 10*
STANDARD(S)		**STANDARD(S)**	**STANDARD(S)**
MACC.K12.MP.3 Construct viable arguments and critique the reasoning of others. **MACC.K12.MP.6 Attend to precision.** **MACC.1.OA.1.1**: Use addition and subtraction within 20 to solves word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. **MACC.1.OA.4.7**: Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *For example, which of the following equations are true and which are false? 6=6, 7=8-1, 5+2=2+5, 4+1=5+2.*		**MACC.K12.MP.3 Construct viable arguments and critique the reasoning of others.** **MACC.K12.MP.6 Attend to precision.** **Understand and apply properties of operations and the relationship between addition and subtraction.** **MACC.1.OA.2.3** Apply properties of operations as strategies to add and subtract.	**MACC.K12.MP.3 Construct viable arguments and critique the reasoning of others.** **MACC.K12.MP.6 Attend to precision.** **MACC.1.OA.1.1**: Use addition and subtraction within 20 to solves word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. **Add and subtract within 20.** **MACC.1.OA.3.6**: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8+6=8+2+4=10+4=14); decomposing a number leading to a ten (e.g., 13-4=13-3-1=10-1=9); using the relationship between addition and subtraction (e.g., knowing that 8+4=12, one knows 12-8=4); and creating equivalent but easier or known sums (e.g., adding 6+7 by creating the known equivalent 6+6+1=12+1=13).

LESSON ESSENTIAL QUESTION	LESSON ESSENTIAL QUESTION	LESSON ESSENTIAL QUESTION
How do you know if addition and subtraction facts are related?	How can you use a related fact to find a missing number? How do you choose when to add and when to subtract to solve a problem?	How can addition and subtraction strategies help you find sums and differences?
VOCABULARY	**VOCABULARY**	**VOCABULARY**
related facts – addition and subtraction facts that share the same numbers	related facts – addition and subtraction facts that share the same numbers	related facts – addition and subtraction facts that share the same numbers

RESOURCES

Go Math! Level 1 Chapter 5: Student Edition, standards practice book, reteach, and enrich books, Grab-and-Go Centers Kit

Books:

Picture Puzzles (found in Grab-and-Go kit)

Juggling (found in the Grab-and-Go kit)

The Fact Family: A Teaching Rhyme About Inverse Number Relationships

Additional Titles for Subtraction: http://christchurchcitylibraries.com/learning/mathsinpictures/#Subtraction

Additional Titles for Addition: http://www.the-best-childrens-books.org/teaching-addition.html

www.youtube.com videos:

Fact Family Song: http://www.youtube.com/watch?v=CsgOSrVnw-M

Missing Numbers in Fact Families: http://www.youtube.com/watch?v=9b7wpb2RhJA

Another Way of Teaching Fact Families: http://www.youtube.com/watch?v=yPovwEHyztY

More Fact Families: http://www.youtube.com/watch?v=dsNyW90u5hA

Workshop Games (in addition to those provided in Grab & Go Kit) to be used in small group or adapted to whole-class:

Subtraction Unit that has ideas for related facts: http://illuminations.nctm.org/LessonDetail.aspx?ID=U65

Make Your Own Addition/Subtraction Fluency Practice Worksheets: http://www.mathfactcafe.com/worksheet/buildit/

GREAT Fact Family Card Game (shows great math talk in action!): http://www.youtube.com/watch?v=GxTaoe6Rjo0

Mini-Lesson: http://www.coolmath4kids.com/subtraction/03-number-families-subtraction-lesson-01.html

Online Games (great to use if SmartBoard is available):

Make a Fact Family: http://www.ezschool.com/Games/FactFamily1.html

Additional Information

Assessments available through GoMath!: Mid-Chapter 5 Assessment (pg. 200 in SE), Chapter 5 Assessment (Assessment Guide or GoMath online), and Performance Task (pg. 228 in SE) Look for Daily Routines to help review important skills daily

COURSE CODE:		COURSE NAME: 1st Grade Math	
UNIT TITLE: Count and Model Numbers		**UNIT ESSENTIAL QUESTION:**	
SEMESTER: 1	**Grading Period: 2**	**How do you use place value to model, read, and write numbers to 120?**	
CONCEPT		**CONCEPT**	**CONCEPT**
Count by Ones and Tens to 120 *Chapter 6 Lessons 1 - 3*		Tens and Ones to 100 *Chapter 6 Lessons 4 - 7*	Numbers 100-120 *Chapter 6 Lessons 8 - 10*
STANDARD(S)		**STANDARD(S)**	**STANDARD(S)**
MACC.K12.MP.5 Use appropriate tools strategically. **MACC.K12.MP.7 Look for and make use of structure.** **Extend the counting sequence.** **MACC.1.NBT.1.1**: Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral. **MACC.1.NBT.2.2**: Understand that two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: B. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.		**MACC.K12.MP.5 Use appropriate tools strategically.** **MACC.K12.MP.7 Look for and make use of structure.** **Extend the counting sequence.** **MACC.1.NBT.1.1**: Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral. **MACC.1.NBT.2.2**: Understand that two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: a. 10 can be thought of as a bundle of ten ones – called a "ten." b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). **MACC.1.NBT.2.3**: Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.	**MACC.K12.MP.5 Use appropriate tools strategically.** **MACC.K12.MP.7 Look for and make use of structure.** **Extend the counting sequence.** **MACC.1.NBT.1.1**: Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.

LESSON ESSENTIAL QUESTION	LESSON ESSENTIAL QUESTION	LESSON ESSENTIAL QUESTION
How can knowing a counting pattern help you count to 120?	How can you use different ways to show, model, and name groups of ones and tens?	How can you model, read, and write numbers from 100 to 120?
VOCABULARY	**VOCABULARY**	**VOCABULARY**
digit – a symbol used in a numeration system; the ten digits used in our base-ten numeration system are 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9 **ones –** the value of a digit in the ones position on a place value chart **ten –** a group of ten ones	**hundred** – a number which is equal to 10 tens or 100 ones **digit –** a symbol used in a numeration system; the ten digits used in our base-ten numeration system are 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9 **ones –** the value of a digit in the ones position on a place value chart **ten –** a group of ten ones	**hundred** – a number which is equal to 10 tens or 100 ones **digit –** a symbol used in a numeration system; the ten digits used in our base-ten numeration system are 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9 **ones –** the value of a digit in the ones position on a place value chart **ten –** a group of ten ones

RESOURCES

Go Math! Level 1 Chapter 6: Student Edition, standards practice book, reteach, and enrich books, Grab-and-Go Centers Kit

Books:

Join Us (found in Grab-and-Go kit)

Strawberries (found in Grab-and-Go kit)

Chicka, Chicka 123! by Bill Martin Jr.

www.youtube.com videos:

Song to Teach Place Value: http://www.youtube.com/watch?v=ATgnG0M3S3Q

Ones, Tens, Hundreds: http://www.youtube.com/watch?v=5W47G-h7myY

Workshop Games (in addition to those provided in Grab & Go Kit) to be used in small group or adapted to whole-class:

Fill the Bus: Explore 2-digit Numbers: http://www.cpalms.org/resources/PublicPreviewResource35902.aspx?kw=place%20value

Biggest Number Game: http://teachers.cmhouston.org/sites/default/files/Biggest%20Number%20Game.pdf

How Many In Your Cup?: http://www.cpalms.org/resources/PublicPreviewResource26840.aspx?kw=place%20value

Place Value With Popsicle Sticks: http://www.beaconlearningcenter.com/Lessons/2787.htm

Online Games (great to use if SmartBoard is available):

Virtual Manipulatives: http://www.cpalms.org/resources/PublicPreviewResource112.aspx?kw=place%20value

Different Levels of Games: http://www.internet4classrooms.com/skill_builders/place_value_math_first_1st_grade.htm

Additional Information

Assessments available through GoMath!: Mid-Chapter 6 Assessment (pg. 260 in SE), Chapter 6 Assessment (Assessment Guide or GoMath online), and Performance Task (pg. 284 in SE) **Critical Area Project on pages 229 – 236B.** Look for Daily Routines to help review important skills daily.

COURSE CODE:		**COURSE NAME:** 1st Grade Math	
UNIT TITLE: Compare Numbers		**UNIT ESSENTIAL QUESTION:**	
SEMESTER: 2	**Grading Period: 3**	**How do you use place value to compare numbers?**	
CONCEPT		**CONCEPT**	**CONCEPT**
Compare Numbers-Greater Than and Less Than *Chapter 7 Lessons 1 – 3*		Compare Numbers – 10 Less, 10 More *Chapter 7 Lessons 4 - 5*	Addition and Subtraction With 2-Digit Numbers *Chapter 8 Lessons 1 - 5*
STANDARD(S)		**STANDARD(S)**	**STANDARD(S)**
MACC.K12.MP.6 Attend to precision. **MACC.K12.MP.8 Look for and express regularity in repeated reasoning.** **Understand place value.** **MACC.1.NBT.2.3**: Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <. **MACC.1.OA.4.7**: Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *For example, which of the following equations are true and which are false? 6=6, 7=8-1, 5+2=2+5, 4+1=5+2.*		**MACC.K12.MP.6 Attend to precision.** **MACC.K12.MP.8 Look for and express regularity in repeated reasoning.** **Understand place value.** **MACC.1.NBT.2.3**: Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <. **MACC.1.OA.4.7**: Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *For example, which of the following equations are true and which are false? 6=6, 7=8-1, 5+2=2+5, 4+1=5+2.*	**MACC.K12.MP.1 Make sense of problems and persevere in solving them.** **MACC.K12.MP.3 Construct viable arguments and critique the reasoning of others.** **MACC.1.OA.3.6**: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as 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. **MACC.1.NBT.3.4**: Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten. **MACC.1.NBT.3.6**: Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

LESSON ESSENTIAL QUESTION	LESSON ESSENTIAL QUESTION	LESSON ESSENTIAL QUESTION
How can you use symbols to show how numbers compare to find which is more or less?	How can 'making a model' and other strategies help you compare numbers?	How can we use strategies to help us add and subtract with 2-digit numbers?
VOCABULARY	**VOCABULARY**	**VOCABULARY**
is greater than – more in quantity or amount > - is greater than is less than – fewer in quantity or amount < - is less than	is greater than – more in quantity or amount > - is greater than is less than – fewer in quantity or amount < - is less than	*No new vocabulary introduced*
RESOURCES		**RESOURCES**
Go Math! Level 1 Chapter 7: Student Edition, standards practice book, reteach, and enrich books, Grab-and-Go Centers Kit **Books:** Name That Number (found in Grab-and-Go kit) Strawberries (found in Grab-and-Go kit) Alfie the Alligator: A Teaching Rhyme About Comparing Numbers **www.youtube.com videos:** Teacher Tip: http://www.youtube.com/watch?v=E0ZZQL0AdQE Mr. Alligator: http://www.youtube.com/watch?v=D5bEcjYBepU Allie the Alligator: http://www.youtube.com/watch?v=NPqT6JBxKCo Allie the Alligator pt. 2: http://www.youtube.com/watch?v=B31WnWEZHyc Allie the Alligator pt. 3 (great for enrichment!): http://www.youtube.com/watch?v=uGfdS6MYSw4 **Workshop Games (in addition to those provided in Grab & Go Kit) to be used in small group or adapted to whole-class:** Unit with Lots of Great Ideas: http://teacheristatales.blogspot.com/2011/11/resources-galore-for-teaching-greater.html Make Your Own Greater Than/Less Than Worksheets: http://www.mathfactcafe.com/worksheet/buildit/ **Online Games (great to use if SmartBoard is available):** Greater Than/Less Than: http://www.ezschool.com/Games/Compare.html Greater Than/Less Than 2: http://www.abcya.com/comparing_number_values_jr.htm		Go Math! Level 1 Chapter 8: Student Edition, standards practice book, reteach, and enrich books, Grab-and-Go Centers Kit **Books:** Garden Party (found in Grab-and-Go kit) It's a Homerun! (found in Grab-and-Go kit) Party Plans (found in Grab-and-Go kit) Alfie the Alligator: A Teaching Rhyme About Comparing Numbers **www.youtube.com videos:** Adding 2-digit Numbers: http://www.youtube.com/watch?v=OOcclZ8ucrU Adding 2-digit Numbers: http://www.youtube.com/watch?v=QsUrWNsVmuE **Workshop Games (in addition to those provided in Grab & Go Kit) to be used in small group or adapted to whole-class:** Add/Subtract Tips: http://www.busyteacherscafe.com/themes/add_sub_unit.html **Online Games (great to use if SmartBoard is available):** Subtract 2-digits: http://www.math-play.com/soccer-math-subtracting-two-digit-numbers/subtracting-two-digit-numbers.html
Additional Information		**Additional Information**
Assessments available through GoMath!: Mid-Chapter 7 Assessment (pg. 300 in SE), Chapter 7 Assessment (Assessment Guide or GoMath online), and Performance Task (pg. 312 in SE) Look for Daily Routines to help review important skills daily		Assessments available through GoMath!: Mid-Chapter 8 Assessment (pg. 328 in SE). Look for Daily Routines to help review important skills daily

COURSE CODE:		**COURSE NAME:** 1st Grade Math	
UNIT TITLE: Two-Digit Addition and Subtraction		**UNIT ESSENTIAL QUESTION:**	
SEMESTER: 2	**Grading Period: 3**	**How can you add and subtract two-digit numbers?** **How can you measure length and tell time?**	
CONCEPT		**CONCEPT**	**CONCEPT**
Addition and Subtraction With 2-Digit Numbers *Chapter 8 Lessons 6 -9*		Measure Length *Chapter 9 Lessons 1 - 5*	Time to the Hour and Half-Hour *Chapter 9 Lessons 6 - 9*
STANDARD(S)		**STANDARD(S)**	**STANDARD(S)**
MACC.K12.MP.1 Make sense of problems and persevere in solving them. **MACC.K12.MP.3 Construct viable arguments and critique the reasoning of others** **MACC.1.OA.3.6**: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as 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. **MACC.1.NBT.3.4**: Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten. **MACC.1.NBT.3.6**: Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.		**MACC.K12.MP.2 Reason abstractly and quantitatively.** **MACC.K12.MP.8 Look for and express regularity in repeated reasoning.** **Measure lengths indirectly and by iterating length units.** **MACC.1.MD.1.1**: Order three objects by length; compare the lengths of two objects indirectly by using a third object. **MACC.1.MD.1.2**: Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. *Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.*	**MACC.K12.MP.2 Reason abstractly and quantitatively.** **MACC.K12.MP.8 Look for and express regularity in repeated reasoning.** **Tell and write time.** **MACC.1.MD.2.3**: Tell and write time in hours and half-hours using analog and digital clocks.

LESSON ESSENTIAL QUESTION	LESSON ESSENTIAL QUESTION	LESSON ESSENTIAL QUESTION
How can we use strategies to help us add and subtract with 2-digit numbers?	How can you compare and measure length?	How can you tell time to the hour and half hour?
VOCABULARY	**VOCABULARY**	**VOCABULARY**
No new vocabulary introduced	**longest –** a distance that is greater than others **shortest –** a distance that is less than others	**hour hand –** the short hand on an analog clock **half hour –** a unit of time equal to 30 minutes **hour –** a unit of time equal to 60 minutes **minute hand –** the long hand on an analog clock **minutes –** a unit used to measure short amounts of time next
RESOURCES	**RESOURCES**	**RESOURCES**
Go Math! Level 1 Chapter 8: Student Edition, standards practice book, reteach, and enrich books, Grab-and-Go Centers Kit **Books:** *listed in previous section* **www.youtube.com videos:** Adding 2-digit Numbers: http://www.youtube.com/watch?v=OOcclZ8ucrU Adding 2-digit Numbers: http://www.youtube.com/watch?v=QsUrWNsVmu **Workshop Games (in addition to those provided in Grab & Go Kit) to be used in small group or adapted to whole-class:** Add/Subtract Tips: http://www.busyteacherscafe.com/themes/add_sub_unit.html **Online Games:** Subtract 2-digits: http://www.math-play.com/soccer-math-subtracting-two-digit-numbers/subtracting-two-digit-numbers.html	**Books (*In addition to Go-Math Chapter 9)*** The Dog Show (found in Grab-and-Go kit) Treasure Hunts (found in Grab-and-Go kit) Measuring Penny by Loreen Leedy How Big is a Foot? by Rolf Myller **www.youtube.com videos:** The Polar Bear Length Song: http://www.youtube.com/watch?v=ggR-S5nLNiM Different Types of Measurement song: http://www.youtube.com/watch?v=wCkv_aoC7M8 Measure Up with Curious George (episode using a tape measure): http://www.youtube.com/watch?v=3nnPYp1dsQ4 **Workshop Games:** Measuring with Twix candy: http://www.beaconlearningcenter.com/Lessons/5398.htm **Online Games:** Long or Short?: http://www.ixl.com/math/kindergarten/long-short	**Books (in addition to Go-Math Chapter 9)** Time to Play (found in Grab-and-Go kit) The Grouchy Ladybug by Eric Carle **www.youtube.com videos:** Hip Hop Around the Clock: http://www.youtube.com/watch?v=ImuzKQ8L2zc Time to the Hour: http://www.youtube.com/watch?v=0loIL0mDwL0 Teacher Tipster Clock Song: http://www.youtube.com/watch?v=Oa3vybzZa6s **Workshop Games:** Generate Worksheets: www.mathfactcafe.com More Ideas: http://www.busyteacherscafe.com/themes/time.ht **Online Games:** Telling Time: http://www.maths-games.org/time-games.html Learn to Tell Time: http://www.abcya.com/telling_time.htm Time to the Hour: http://www.myschoolhouse.com/courses/O/1/12.a
Additional Information	**Additional Information**	
Assessments available through GoMath!: Chapter 8 Assessment and Performance Task (pg. 228 in SE) Look for Daily Routines to help review important skills daily	Assessments available through GoMath!: Mid-Chapter 9 Assessment (pg. 388 in SE), Chapter 9 Assessment (Assessment Guide or GoMath online), and Performance Task (pg. 408 in SE). **Critical Area Project on pages 357 – 364B.** Look for Daily Routines to help review important skills daily	

COURSE CODE:		COURSE NAME: 1st Grade Math	
UNIT TITLE: Represent Data		**UNIT ESSENTIAL QUESTION:**	
SEMESTER: 2	**Grading Period: 3**	**How can graphs and charts help you organize, represent, and interpret data?**	
CONCEPT		**CONCEPT**	**CONCEPT**
Reading and Making Picture Graphs *Chapter 10 Lessons 1 - 2*		Reading and Making Bar Graphs *Chapter 10 Lessons 3 - 4*	Reading and Making Tally Charts and Other Graphs *Chapter 10 Lessons 5 - 7*
STANDARD(S)		**STANDARD(S)**	**STANDARD(S)**
MACC.K12.MP.3 Construct viable arguments and critique the reasoning of others. **MACC.K12.MP.6 Attend to precision.** **MACC.1.MD.3.4**: Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.		**MACC.K12.MP.3 Construct viable arguments and critique the reasoning of others.** **MACC.K12.MP.6 Attend to precision.** **MACC.1.MD.3.4**: Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.	**MACC.K12.MP.3 Construct viable arguments and critique the reasoning of others.** **MACC.K12.MP.6 Attend to precision.** **MACC.1.MD.3.4**: Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.
LESSON ESSENTIAL QUESTION		**LESSON ESSENTIAL QUESTION**	**LESSON ESSENTIAL QUESTION**
How do you make and use a picture graph to answer questions?		How do you make and use a bar graph to compare information?	How can you make and use a tally graph to compare and show data?

VOCABULARY	VOCABULARY	VOCABULARY
picture graph – a graph that uses pictures to show data	**bar graph –** a graph that uses bars to show data	**tally chart –** a chart that uses tally marks to record data **tally mark –** a mark that shows one piece of data

RESOURCES

Go Math! Level 1 Chapter 10: Student Edition, standards practice book, reteach, and enrich books, Grab-and-Go Centers Kit

Books:

Miss B's Class Makes Tables and Graphs (found in Grab-and-Go kit)

Additional Ideas: http://www.the-best-childrens-books.org/teaching-graphs.html

www.youtube.com videos:

I Love Charts by Sid the Science Kid (great song to connect to Science!): http://www.youtube.com/watch?v=b1dN6CMA-lQ

Intro to Graphs: http://www.youtube.com/watch?v=-cSm_D7MrRI

How to Read a Bar Graph: http://www.youtube.com/watch?v=tKOKRY902Q0&list=PLB8F9DD1E32F7C099&index=3

How to Read Simple Bar Graphs: http://www.youtube.com/watch?v=hd3jjjrI5eI&list=PLB8F9DD1E32F7C099

More On Bar Graphs: http://www.youtube.com/watch?v=gX9mAL8ixzI

Tally Marks: http://www.youtube.com/watch?v=iwZJvh_7oqA

Workshop Games (in addition to those provided in Grab & Go Kit) to be used in small group or adapted to whole-class:

I "Moustache" You a Question, Graphing Activity: http://www.teacherspayteachers.com/Product/Graphing-Activity-I-Moustache-You-A-Question-Free-218924

Birthday Graph: http://snippetsbysarah.blogspot.com/2012/09/first-week.html?m=1

Jelly Bean Graphing: http://www.youtube.com/watch?v=fsxBJPYAU6c

Worksheets: http://www.k5learning.com/free-preschool-kindergarten-worksheets/graphing

More Printables: http://www.education.com/worksheets/first-grade/graphing-data/

More Ideas: http://www.kindergarten-lessons.com/graphing-activities.html

Online Games:

Graphing Bugs: http://pbskids.org/cyberchase/math-games/bugs-in-the-system/

More Graphing Games: http://www.internet4classrooms.com/skill_builders/graphing_math_first_1st_grade.htm

Additional Information

Assessments available through GoMath!: Mid-Chapter 10 Assessment (pg. 428 in SE), Chapter 10 Assessment (Assessment Guide or GoMath online), and Performance Task (pg. 444 in SE). Look for Daily Routines to help review important skills daily.

COURSE CODE:		COURSE NAME: 1st Grade Math	
UNIT TITLE: 2-D and 3-D Geometry		**UNIT ESSENTIAL QUESTION:**	
SEMESTER: 2	**Grading Period: 4**	**How do you identify and describe three-dimensional shapes? How do you sort and describe two-dimensional shapes?**	
CONCEPT		**CONCEPT**	**CONCEPT**
Three-Dimensional Shapes *Chapter 11 Lessons 1 – 3*		Three-Dimensional Shapes *Chapter 11 Lessons 4 – 5*	Two-Dimensional Geometry *Chapter 12 Lessons 1 – 4*
STANDARD(S)		**STANDARD(S)**	**STANDARD(S)**
MACC.K12.MP.1 Make sense of problems and persevere in solving them. **MACC.K12.MP.7 Look for and make use of structure.** **MACC.1.G.1.1**: Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes. **MACC.1.G.1.2**: Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shapes, and compose new shapes from the composite shape.		**MACC.K12.MP.1 Make sense of problems and persevere in solving them.** **MACC.K12.MP.7 Look for and make use of structure.** **MACC.1.G.1.1**: Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes. **MACC.1.G.1.2**: Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shapes, and compose new shapes from the composite shape.	**MACC.K12.MP.4 Model with mathematics.** **MACC.K12.MP.7 Look for and make use of structure.** **MACC.1.G.1.1**: Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes. **MACC.1.G.1.2**: Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shapes, and compose new shapes from the composite shape. **MACC.1.G.1.3**: Partition circles and rectangles into two and four equal shares, describe the shapes using the words *halves, fourths,* and *quarters*, and use the phrases *half of, fourth of,* and *quarter of*. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.
LESSON ESSENTIAL QUESTION		**LESSON ESSENTIAL QUESTION**	**LESSON ESSENTIAL QUESTION**
How can you identify, describe, and combine three-dimensional shapes?		How can you identify, describe, and combine three-dimensional shapes?	How you use attributes to sort and describe two-dimensional shapes?

VOCABULARY	VOCABULARY	VOCABULARY
cone – a three-dimensional shape with a round base and a point at the top **cube –** a square three-dimensional shape such as a box **curved surface –** a rounded surface **cylinder –** a three-dimensional shape with flat circular ends and a curved surface such as a tube **flat surface –** a level surface **rectangular prism –** a rectangular three-dimensional shape such as a brick **sphere –** a round three-dimensional shape such as a ball	**cone** – a three-dimensional shape with a round base and a point at the top **cube** – a square three-dimensional shape such as a box **curved surface** – a rounded surface **cylinder** – a three-dimensional shape with flat circular ends and a curved surface such as a tube **flat surface** – a level surface **rectangular prism** – a rectangular three-dimensional shape such as a brick **sphere** – a round three-dimensional shape such as a ball	**shapes – circles, rectangles, sides, square, triangle, hexagon, trapezoid** **sides –** the line segments that form polygons **vertices –** the points where 2 or more edges of a three-dimensional shape meet or where 2 sides of a polygon meet
RESOURCES		**RESOURCES**
Go Math! Level 1 Chapter 11: Student Edition, standards practice book, reteach, and enrich books, Grab-and-Go Centers Kit **Books:** April's First Word (found in Grab-and-Go kit) Building a Mini-Park (found in Grab-and-Go kit) Curious George Goes to the Toy Store **www.youtube.com videos:** 3-D Shapes Song: http://www.youtube.com/watch/?v=2PiRhCwzg5E 3-D Shapes I Know Song (uses real life examples): http://www.youtube.com/watch?v=K9L9l86N-xM **Workshop Games (in addition to those provided in Grab & Go Kit):** 3-D Shapes Ideas: http://www.gobookee.net/first-grade-3d-shapes-lesson/ Anchor Chart Idea: http://afirstgradefairytale.blogspot.com/2013/03/3d-shapes-core-style.html Different Parts of a Shape: http://www.beaconlearningcenter.com/WebLessons/SolidPatterns/default.htm Lots of Great Ideas!: http://pinterest.com/jazleywyn/kinder-3d-shapes/ Make anchor charts: http://literacyandlaughter.blogspot.com/2012/02/3d-shapes.html Templates to make each shape: http://www.senteacher.org/wk/3dshape.php **Online Games (great to use if SmartBoard is available):** Identify 3-D Shapes: http://www.ixl.com/math/grade-1/identify-3-dimensional-figures		Go Math! Level 1 Chapter 12: Student Edition, standards practice book, reteach, and enrich books, Grab-and-Go Centers Kit **Books:** Signs Shape Up (found in Grab-and-Go kit) The Greedy Triangle by Marilyn Burns **www.youtube.com videos:** **Workshop Games (in addition to those provided in Grab & Go Kit) to be used in small group or adapted to whole-class:** Castle Shapes: http://www.ngfl-cymru.org.uk/vtc/castle_shapes/eng/Introduction/default.htm Fun Ideas: http://fun-n-first.blogspot.com/2011/12/shapin-it-up.html **Online Games :** What am I?: http://www.ngfl-cymru.org.uk/vtc/ngfl/maths/maerdy_2d/e_index.html
Additional Information		**Additional Information**
Assessments available through GoMath!: Mid-Chapter 11 Assessment (pg. 468 in SE), Chapter 11 Assessment (Assessment Guide or GoMath online), and Performance Task (pg. 480 in SE) **Critical Area Project on pages 445 – 452B in TE.** Look for Daily Routines to help review important skills daily		Assessments available through GoMath!: Mid-Chapter 12 Assessment (pg. 504 in SE). Look for Daily Routines to help review important skills daily

COURSE CODE:		**COURSE NAME:** 1st Grade Math	
UNIT TITLE: Two-Digit Addition and Subtraction		**UNIT ESSENTIAL QUESTION:**	
SEMESTER: 2	**Grading Period: 4**	**How can you add and subtract two-digit numbers?** **How can you measure length and tell time?**	
CONCEPT		**CONCEPT**	**CONCEPT**
Combine 2-D Shapes		Fractions	Getting Ready for 2nd Grade
STANDARD(S)		**STANDARD(S)**	**STANDARD(S)**
MACC.K12.MP.4 Model with mathematics. **MACC.K12.MP.7 Look for and make use of structure.** **MACC.1.G.1.1**: Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes. **MACC.1.G.1.2**: Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shapes, and compose new shapes from the composite shape. **MACC.1.G.1.3**: Partition circles and rectangles into two and four equal shares, describe the shapes using the words *halves, fourths,* and *quarters*, and use the phrases *half of, fourth of,* and *quarter of*. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.		**MACC.K12.MP.4 Model with mathematics.** **MACC.K12.MP.7 Look for and make use of structure.** **MACC.1.G.1.1**: Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes. **MACC.1.G.1.2**: Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shapes, and compose new shapes from the composite shape. **MACC.1.G.1.3**: Partition circles and rectangles into two and four equal shares, describe the shapes using the words *halves, fourths,* and *quarters*, and use the phrases *half of, fourth of,* and *quarter of*. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.	**MACC.2.NBT.1.3:** Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. **MACC.2.NBT.1.4:** Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons. **MACC.2.OA.2.2:** Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.

LESSON ESSENTIAL QUESTION	LESSON ESSENTIAL QUESTION	LESSON ESSENTIAL QUESTION
How can we use strategies to help us add and subtract with 2-digit numbers?	How can you compare and measure length?	What skills do we need in 2nd grade?
VOCABULARY	**VOCABULARY**	**VOCABULARY**
shapes – circles, rectangles, sides, square, triangle, hexagon, trapezoid **sides –** the line segments that form polygons **vertices –** the points where 2 or more edges of a three-dimensional shape meet or where 2 sides of a polygon meet	**equal parts –** parts of an object or group that have been divided equally into pieces **equal shares-**parts of a whole that are the same size **unequal parts/shares –** parts of a whole that are not the same size **half of –** one of two equal parts of a whole **halves –** two equal parts **fourth/quarter of-**one of four equal parts of a whole **fourths/quarters –** four equal parts	***No new vocabulary introduced but concepts covered include place value, addition, and subtraction.***
RESOURCES	**RESOURCES**	**RESOURCES**
Go Math! Level 1 Chapter 12: Student Edition, standards practice book, reteach, and enrich books, Grab-and-Go Centers Kit **Books:** Signs Shape Up (found in Grab-and-Go kit) The Greedy Triangle by Marilyn Burns **www.youtube.com videos:** **Workshop Games (in addition to those provided in Grab & Go Kit) to be used in small group or adapted to whole-class:** Castle Shapes: http://www.ngfl-cymru.org.uk/vtc/castle_shapes/eng/Introduction/default.htm Fun Ideas: http://fun-n-first.blogspot.com/2011/12/shapin-it-up.html **Online Games :** What am I?: http://www.ngfl-cymru.org.uk/vtc/ngfl/maths/maerdy_2d/e_index.html	Go Math! Level 1 Chapter 12: Student Edition, standards practice book, reteach, and enrich books, Grab-and-Go Centers Kit **Books:** The Hershey's Milk Chocolate Fractions Book Eating Fractions by Bruce McMillan **www.youtube.com videos:** Fractions Song: http://www.youtube.com/watch?v=DnFrOetuUKg Quarters and Halves: http://www.youtube.com/watch?v=VMWa6dDoicc **Workshop Games (in addition to those provided in Grab & Go Kit):** Fraction Cookies: http://fisforfirstgrade.blogspot.com/2012/02/fractions-are-my-favorite.html **Online Games:** Matching Fractions: http://www.sheppardsoftware.com/mathgames/fractions/memory_fractions1.htm	**GoMath! Level 1 Getting Ready for 2nd Grade (found in 1st Grade Planning Guide)** **Books:** Strawberries (found in Grab-and-Go kit) Chicka, Chicka 123! by Bill Martin Jr. **www.youtube.com videos:** Song to Teach Place Value: http://www.youtube.com/watch?v=ATgnG0M3S3Q Ones, Tens, Hundreds: http://www.youtube.com/watch?v=5W47G-h7myY **Workshop Games:** Place Value With Popsicle Sticks: http://www.beaconlearningcenter.com/Lessons/2787.htm Biggest Number Game: http://teachers.cmhouston.org/sites/default/files/Biggest%20Number%20Game.pdf **Online Games (great to use if SmartBoard is available):** Different Levels of Games: http://www.internet4classrooms.com/skill_builders/place_value_math_first_1st_grade.htm
Additional Information		**Additional Information**
Assessments available through GoMath!: Chapter 12 Assessment and Performance Task (pg. 528 in SE). Look for Daily Routines to help review important skills daily.		Assessments available through GoMath!: Checkpoint on P255-P256

COURSE CODE:		COURSE NAME: 1st Grade Math	
UNIT TITLE: Getting Ready for 2nd Grade		**UNIT ESSENTIAL QUESTION:**	
SEMESTER: 2	**Grading Period: 4**	**What skills will we need in 2nd Grade?**	
CONCEPT		**CONCEPT**	**CONCEPT**
Getting Ready for 2nd Grade		Getting Ready for 2nd Grade	Getting Ready for 2nd Grade
STANDARD(S)		**STANDARD(S)**	**STANDARD(S)**
MACC.2.OA.2.2: Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. **MACC.2.NBT.2.5:** Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. **MACC.2.OA.3.4:** Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.		**MACC.2.OA.3.4:** Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends. **MACC.2.MD.1.1:** Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. **MACC.2.MD.1.4:** Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit. **MACC.2.MD.3.7:** Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.	**MACC.2.MD.4.10:** Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph. **MACC.2.G.1.1:** Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. **MACC.2.G.1.3:** Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words *halves*, *thirds*, *half of*, *a third of*, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.
LESSON ESSENTIAL QUESTION		**LESSON ESSENTIAL QUESTION**	**LESSON ESSENTIAL QUESTION**
What skills will we need in 2nd Grade?		What skills will we need in 2nd Grade?	What skills will we need in 2nd Grade?

VOCABULARY	VOCABULARY	VOCABULARY
No new vocabulary introduced but concepts covered include addition.	***No new vocabulary introduced but concepts covered include addition, measurement, time to the hour and half hour.***	***No new vocabulary introduced but concepts covered include graphs, shapes, and fractions.***
RESOURCES	**RESOURCES**	**RESOURCES**
GoMath! Level 1 Getting Ready for 2nd Grade **Books:** Garden Party (found in Grab-and-Go kit) It's a Homerun! (found in Grab-and-Go kit) Party Plans (found in Grab-and-Go kit) Funny Bunny Hats (found in Grab-and-Go kit) **www.youtube.com videos:** Adding 2-digit Numbers: http://www.youtube.com/watch?v=OOcclZ8ucrU Adding 2-digit Numbers: http://www.youtube.com/watch?v=QsUrWNsVmu **Workshop Games/Ideas:** Around the World: http://www.proteacher.net/discussions/showthread.php?t=130051 Printable Games: http://www.sparklebox.co.uk/maths/calculations/addition-activities.html#.Ua59-4H4JZ1 Make Your Own Addition Fluency Practice Worksheets: http://www.mathfactcafe.com/worksheet/buildit/ **Online Games:** Different Levels of Addition Games: http://resources.woodlands-junior.kent.sch.uk/maths/interactive/	**GoMath! Level 1 Getting Ready for 2nd Grade** **Books:** Treasure Hunts (found in Grab-and-Go kit) Time to Play (found in Grab-and-Go kit) The Grouchy Ladybug by Eric Carle Measuring Penny by Loreen Leedy **www.youtube.com videos:** Teacher Tipster Clock Song: http://www.youtube.com/watch?v=Oa3vybzZa6s Hip Hop Around the Clock: http://www.youtube.com/watch?v=ImuzKQ8L2zc The Polar Bear Length Song: http://www.youtube.com/watch?v=ggR-S5nLNiM Different Types of Measurement song: http://www.youtube.com/watch?v=wCkv_aoC7M8 Measure Up with Curious George (episode using a tape measure): http://www.youtube.com/watch?v=3nnPYp1dsQ4 **Workshop Games:** Measuring with Twix candy: http://www.beaconlearningcenter.com/Lessons/5398.htm **Online Games:** Telling Time: http://www.maths-games.org/time-games.html Learn to Tell Time: http://www.abcya.com/telling_time.htm	**GoMath! Level 1 Getting Ready for 2nd Grade** **Books:** Miss B's Class Makes Tables and Graphs (found in Grab-and-Go kit) The Hershey's Milk Chocolate Fractions Book Eating Fractions by Bruce McMillan Additional Ideas for Graphing Books: http://www.the-best-childrens-books.org/teaching-graphs.html **www.youtube.com videos:** More On Bar Graphs: http://www.youtube.com/watch?v=gX9mAL8ixzI Tally Marks: http://www.youtube.com/watch?v=iwZJvh_7oqA Fractions Song: http://www.youtube.com/watch?v=DnFrOetuUKg **Workshop Games/Ideas:** Graphing Printables: http://www.education.com/worksheets/first-grade/graphing-data/ **Online Games:** More Graphing Games: http://www.internet4classrooms.com/skill_builders/graphing_math_first_1st_grade.htm
Additional Information	**Additional Information**	**Additional Information**
Assessments available through GoMath!: Checkpoint on P273-P274 and Getting Ready for 2nd Grade Assessment in Assessment Guide pg. AG241-AG244	Assessments available through GoMath!: Checkpoint on P283-P284	Assessments available through GoMath!: Checkpoint on P295-P296 and Getting Ready for 2nd Grade Assessment in Assessment Guide pg. AG255-AG260