

Unit 1: 1st Grade Mod 6/ 2nd Grade Mod 1 (Engage NY/Eureka Math)

Dates: Scope and Sequence - can link to big picture S&S and/or whole school S&S

Learning Targets Overview

LT1	Culture & Charact er		Can actively and appropriately participate in math time. (Participation) I can listen to a friend or my teacher talk about math (supporting focus target for rug, rug turn and talk, and table turn and talk time) I can set up and clean up for counting jars, Math Workshop, and problem solving. (supporting target to support quick, safe, silent routines) I can grapple when things get tough.	Crew created rubric
LT2	Fluency	2.NBT.A. 2	1st grade supporting: I can count forwards and backwards by 1s. I can write numbers to 120. 1.NBT.A.1	Fluency Assessment Pages 3, 4, 5
LT3	Problem Solving	MP.1	Have access to type all problem types. (Goal for end of 1st grade) Learnmetrics: MP1 Learnmetrics: MP1 Learnmetrics: MP1 Learn accurately retell the story problem in my own words. Learn explain what's happening in the story. Learn choose a strategy that matches the story to solve the problem. Learn explain what in the story made me choose my strategy. Learn explain my solution.	Problem Solvi Pages "enterion Teacher Tracking
LT3	Work Shop	2.NBT.A. 1 (1.NBT.1 1.NBT.2a 1.NBT.2c 1.NBT.3 1.NBT.5)	I can describe numbers within 120. (Later within 1000). • Use place value chart to model tens and ones • Write two digit numbers to 100 in expanded form (40 +2, etc) • Identity 10 more, 10 less, 1 more, and 1 less than a 2 digit number within 100 • Use the <,>,= symbols to compare quantities of numbers within 100 • Count and write numbers to 120	End of Unit Assessment EOU Check I
LT4	Work Shop	2.OA.A.1 & (1.NBT.4 1.NBT.6)	I can solve + and - word problems in multiple ways. • Within 20 • Within 40 • Within 100	Problem Solvi Pages "enteri
LT5	Jars	1.MD.3	I can identify the coins and what they are worth. (Money Jar level 1)	Money Jar Assessment

Key Vocabulary:

- Counting Jar
- Count
- Quick Images
- "How Many"
- Listen
- Listening Body
- Problem Solving
- Strategy
- Retell
- Accurately
- Struggle or grapple
- "tens " and "ones"

_

Literacy Integration

Songs:

- Skip Counting by 2s, 5s, and 10s
- Coin Identification Song

Kindergarten & 1st Grade Level Songs:

- o Place Value Song
- Video about teen numbers
- Count to 120 (with exercises!)
- <u>Count to 120</u> (at the zoo with animal exercises)
- Count to 100 (with exercises!)
- Count to 100 (with a creepy "DJ" and dance moves)
- Count to 100 (basic)
- Counting to 5 (5 Little Ducks song)
- Counting to 10
- Counting to 20 option 1
- Counting to 20 option 2

Money Jars (taught every day for first week or 2 as needed, then 1x a week (and dropped on short weeks))

- Jars (1 per student) (see possible bucket storage systems to speed up setup/cleanup below) with names on top (that way you can switch the lids quickly to change the number of tiles in each jar).
- \$ in Jars
- Money Jar Recording pages
- Chart Paper
- Collect 25, 50, or 100 cents (game can add much later)

Intervention or Support (even homework) or morning work

• Packet of Number sense support (1st Grade level)



Daily Lesson Plans

	Monday	Tuesday	Wednesday	Thursday	Friday				
Week 0	Culture: I can actively and appropriately participate in math time. I can listen to a friend or my teacher talk about math (supporting focus target for rug, rug turn and talk, and table turn and talk time) I can set up and clean up for money jars I stick with it when the work gets tough (math is supposed to be tough - that's when we are learning! Introduce "struggle" or "grapple" time - this week OR next week - and create an anchor chart (see example below that you can use to celebrate those to struggle productively during math!								
	Fluency: I can count forwards and backwards by 1s. I can write numbers to 120. 1.NBT.A.1 Jars: Optional: play collect 25cents								
	Name Heads Tails Value Penny Aratam Lacan Aratam Heads Tails Value What is "struggle isreal What is "struggle time"? What popers The cents Invasion Rail Leave Heads Tails Value What do you do when you struggle? Took aftered to freet profit enter profilem. Tankin Took Aftered to recy more than Assistant, took of the of the profilem. Tankin Took Head Took After 80 Took Aftered to recy profilem. Tankin Took Head Took After 80 Took Aftered to recy profilem. Tankin Took Head Took After 80 Took After 80 Took Aftered to recy profilem. Tankin Took After 80 Took Af								
Daily Plans	8/19 Math Culture/Discourse Norm Setting	8/20 Math Culture/Discourse Norm Setting (weave through math	8/21 Math Culture/Discourse Norm Setting (weave through math	8/22 Math Culture/Discourse Norm Setting (weave through math	8/23 Math Culture/Discourse Norm Setting (weave through math blocks)				
	Jars: *Set up and clean	blocks)	blocks)	blocks)	Jars:				
	up routines launched	Jars: *Set up and clean up routines launched	Jars: *Set up and clean up routines launched	Jars: *Set up and clean up routines launched	*Set up and clean up routines launched				
	Creating money anchor chart	Creating money anchor chart (penny)	Creating money anchor chart (nickel)	Creating money anchor chart (dime)	Creating money anchor chart (quarter)				
	Playing the money song	Playing the money song	Playing the money song	Playing the money song	Playing the money song				
	Math Routines: Calendar math/days in school	Math Routines: Calendar math/days in school	Math Routines: Calendar math/days in school	Math Routines: Calendar math/days in school	Math Routines: Calendar math/days in school				
		Song movement	Song movement	Song movement	Song movement counting by 1s				

		counting by 1s	counting by 1s	counting by 1s	
Week 1	Culture: Math Workshop: I can record and name tens and ones within a two-digit number up to 100. I can write and interpret two-digit numbers to 100 as addition sentences combining tens and ones. I can find 10 more/less and 100 more/less of any number within 100. I can compare numbers to 100. I can count and write numbers to 120. Fluency: I can count forwards and backwards by 1s. I can write numbers to 120. Jars: I can identify the coins and what they are worth. Workshop lessons 1 - 5				
Plans:	8/26 Math Workshop: *I can get ready for math workshop (RTL, white boards) Lesson 1 ENY G1 M6 L3: Record and name tens and ones within a two-digit number up to 100. Math Routines: Same as week 0	8/27 Math Workshop: *I can get ready for math workshop (RTL, white boards) Lesson 2 ENY G1 M6 L4: Write and interpret two-digit numbers to 100 as addition sentences combining tens and ones. Math Routines: Same as week 0	8/28 Math Workshop: *I can get ready for math workshop (RTL, white boards) Lesson 3 ENY G1 M6 L5: 10 more/less, 1 more/less than a number within 100 Math Routines: Same as week 0	8/29 Math Workshop: *I can get ready for math workshop (RTL, white boards) Lesson 4 ENY G1 M6 L6: Compare numbers to 100 Math Routines: Same as week 0	8/30 Math Workshop: *I can get ready for math workshop (RTL, white boards) Lesson 5 ENY G1 M6 L7: Count and write numbers to 120 Jars: *Set up and clean up routines revisited Playing the money song Math Routines: Same as week 0
Week 2	2 Culture: Math Workshop: • I can make numbers to 120				

- I can make numbers to 120
- I can add and subtract multiples of 10 from multiples of 10 up to 100.

Fluency: I can count forwards and backwards by 1s. I can write numbers to 120.

<u>Jars</u>: I can identify the coins and what they are worth.

Workshop: LT 4 I can describe numbers within 120. (Engage NY 1st Grade Module 6 lessons 3 - 9) Create Place Value Anchor Chart and get up number line to 120. Number line found here!



Week 2		9/4	9/5	9/6

Plans:	Labor Day Schools Closed	PD Day Schools Closed for Students	Math Workshop: Lesson 6 ENY G1 M6 L8: Making numbers to 120 using tens and ones - Unit form Math Routines:	Math Workshop: Lesson 7 ENY G1 M6 L9: Represent numbers to 120 Math Routines:	Math Workshop: Lesson 8 ENY G1 M6 L10: Add and subtract multiples of 10 from multiples of 10 to 100. Math Routines: Jars:
Week 3	 Add a pair of sum less tha Add a pair of sum greater using using I can count numbers to 120. 	ole of 10 to any two-digit f two-digit numbers whe n or equal to 10 f two-digit numbers whe than 10 g decomposition g base-ten modeling forwards and backward e coins and what they an	n ones digits have a en ones digits have a en ones digits have a els by 1s. I can write	count by ones count by 25 + 21 25+2 =46 cars 25+2 ount up by ones count up by ones	p by tens
Week 3 Plans:	Math Workshop: Math Routines:	Math Workshop: Math Routines:	Math Workshop: Math Routines:	Math Workshop: Math Routines:	Math Workshop: Math Routines: Jars:
Week 4	have a sum greater t	g base-ten modeling g varied recording methon nd share strategies for a	ods dding two-digit numbers	counting by ones by ones counting by ones counting by ones count body as left? 36-12-24 brds count back by ones	we can Subtract counting by tens inverted algorithm 36-10=26 the next 26-2=24 36-12=24 birds
Week 4 Plans:	Math Workshop: Math Routines:	Math Workshop: Math Routines:	Math Workshop: Math Routines:	Math Workshop: Math Routines:	Math Workshop: Math Routines:

Lesson Plans (Routines)

Jars:

Jars -

- Overview of Jars (and all jars progression)
- Roll out of routines (levels 1-4)
- Lesson Plan (full)

Lesson Plans for Routines

(Taken from <u>High Yield Routine Doc</u>)

- Quick Images
- How many days have we been in school (calendar math)
- Count around the circle
- Start and Stop Counting
- Organic Number Line
- Ten wand (as intervention)

Quick Images

Quick Images			
Big Ideas & Description	Lesson Plan	Questions	Links/Images
Subitizing Visualizing amounts Using groups and combining groups to figure out "how many" Quick images uses cards with dots on them arranged in various groups. The dots can be arranged in 2s, 5s, 10s, doubles, or the visual arrangement of dice or dominoes. The purpose of this routine is to get students to think in groups rather than count by ones. *See Resource article from NCTM (1999, Clements) "Subitizing: What is it? Why Teach it?" to learn more!	Materials: White cards (card stock or large index cards), colored sticker dots, 1. Teacher holds up a card or magnetic surface with an arrangement of dots on it for 3-5 seconds. 2. Then the teacher asks the students what they saw. 3. Students respond (verbally or on whiteboards) and explain how they know.	 How many did you see? How did you know it so quickly? Did you need to count? What did you do? What did you see? Why are you able to know the amount so quickly? Did anyone have a different way to find the answer? 	Dot images option 1 Or Quick Image Cards option 2 Examples: K/ 1 → See videos here Example 1 (day 1) Example 2 Extensions: How many? Use magnetic tens and ones Draw what you saw. Explain. Write a math problem that could use this image. Context for Learning Mini-lessons

How Many Days Have we Been in school?

Add a stick or a dot in a ten frame every day. Write the number of days we've been in school. Have students play with making that number in different ways. Continue everyday and build a number line! You can add Calendar Math (see below) or just do the days in school.

	Calendar Math					
Big Ideas & Description	Lesson Plan	Questions	Links/Imag es			
Understanding how our time is organized and measured Counting, recognizing, and sequencing numbers Use a real calendar in addition to a pre-made calendar from the teacher store. As a class, write in important days throughout the school year (birthdays, field trips, etc.). Integrate social studies and science.	 Students circle up in front of the calendar and start off by saying today's date in a complete sentence. "Today is Friday, September 5, 2008." Then the class goes through the following routines (pick and choose based on time): how many days have we been in school, counting the days in the month, looking for patterns (with questions such as What will tomorrow be? and What date will it be on Friday?) and so on. Teachers can also use Calendar Math as an opportunity to talk about the past, present and future, sing songs about the days of the week and months of the year, and incorporate other content areas (ex. Holidays, historic days, seasons). At the end of the month, teachers can use the questions to the right to lead an End of the Month Ceremony. Note: can get up visual number line (with ten frame, or domino style visual support) as you add each day, or add to the number line on one day of the week (i.e. add five numbers every Friday for example) 	 Ask a student to read today's date. Ask a student to count the days in this month. Read an important date for the calendar, and have a student find the date and write the event or celebration on the calendar. Try asking the following questions during calendar time: If March ends on a Monday, what day of the week will April begin on? What about May? How many days until? How many weeks (or months) until your birthday (or other exciting days)? (This question will assuredly spark debate!) Is it three or four days until your birthday! (Should you count today or not?) If Monday is March 17th, what day of the week will it be on the 20th? Prompts and Questions to Use During an End-of-Month Ceremony Find the number that is made of a ten and two. Find the mumber that represents this amount. (Show a card with 5 dots.) Find the number one less than 7. Find the number one more than 10. More Open-Ended: Find a number less than 15. Find a number close to 10. 	Blank Calendar Investigations in Number, Data, and Space, Kindergarten: Calendar Routine As you build at the beginning of the year, create visual number line to support.			

Count Around the Circle

Count Around the Circle					
Big Ideas & Description	Lesson Plan	Questions	Links/Im ages		
 Counting sequences Using patterns for problem solving Estimation Understanding place value Understanding how the number system works Choose a counting sequence (e.g., Count by 10s starting at 32) and go around the circle as each person says a number (e.g., 32, 42, 52, etc.).	 The teacher displays learning target stating how the students will be counting for Count Around the Circle. The teacher selects a student to start off by saying the first number. Then the next student says the next number and so forth around the circle. To facilitate understanding of number patterns, write the numbers on the board or on a number line as students say them. (With skip counting and a 100 chart, circle the numbers as students count and ask students what they notice; e.g., count by 5s, notice that counted numbers are in columns of numbers that end in 5 and 0). Ask students to predict the number where the count will end before the first or second go round (e.g., students count by 1s around the circle and get to 25. What number do you think we'll land on after a second round of counting?). Teach the students a hand signal to stop the counting if they disagree or notice a mistake in the counting. Then have them explain where the error is using the number line. Variations include the following: Count by ones, tens, fives, twos, threes, and so on, starting at zero. Count by ones, tens, fives, twos, threes, and so on, starting at various numbers. Count by fractional numbers. Count by hundreds or thousands or millions, starting at zero or at various numbers. Pick a number and go around the room counting, students are not allowed to say a factor of that number. (ex: 5- students would say 1, 2, 3, 4, 6, 7, 8, 9, 11) 	Estimation: If we count by ones starting with Kelly and go all the way around the circle, what number do you think Amir will say? If you didn't count to figure it out, what did you do in your head? If we count around the circle by tens and we go around three times, what will Lucy say? How do you know that without counting it? Noticing Patterns: How did you know what comes next? I noticed that you paused when it was your turn and then you figured it out. What did you do to figure it out?	Resource: Contexts for Learning "Mini-lesson s for Extending Addition and Subtraction " Video example: https://ww w.youtube. com/watch ?v=d6a OR MXOWQ		

Start and Stop Counting

Start and Stop Counting

Big Ideas & Description	Lesson Plan	Questions	Links/Images
Counting sequences Understanding patterns in numbers Difference or distance between two numbers The class counts a number sequence all together, with a starting number and a stopping number. For example, have the class count by tens, starting with 26 and stopping at 176. In addition to whole class, this routine works particularly well with small groups and individual students.	You can use Start and Stop Counting just like Count Around the Circle, Choral Counting, or with individual students. You can use this routine with: 1. Counting by ones (tricky teens, getting over the decade) 2. Counting on and counting back 3. Counting by fractions, decimals, and larger numbers Teachers can build student interest by putting numbers in two different bags. One student pulls a number from the "start" bag and another student pulls a number from the "end" bag.	Ask questions to facilitate discussion about patterns, such as odd/even patterns: If we start with twenty-five and count by fives, what numbers could we stop at? If we count by twos and start with 1,222, what numbers could we stop at? Why would the number need to be even? To highlight the distance between numbers and guide a discussion about difference, use the following questions: If we count by twos, starting with 1,222 and stopping at 1,234, will it take a long time or not much time? How do you know? If we count by twos, starting with 1,222 and stopping at 4,222, will it take a long time or not much time? How do you know?	

Organic Number Line:

Organic Number Line				
Big Ideas & Description	Lesson Plan	Questions	Links/Images	
 Irrational numbers Various names and representations of numbers Big ideas like benchmarks, equivalence, the whole, and part of the whole Strategies like using benchmarks and 	Materials: string (about 6 feet long) and cards labeled with numerals and pictures *Students require strong visual understandings of fractions prior to embarking on the Organic Number Line routine. Without a mental image of	To focus on benchmarks, ask questions like these: - Where does this number go on our number line? How do you know? - What numbers can you think of that go between ½ and 1? How do you know?	Organic Number Line for Primary Examples of Organic Number Line with Fractions:	

doubling and halving

This is a number line that vou can add to continuously throughout the year. Think of it as one section of your "whole number" number line - you are magnifying (and hence adding more details to) the number line from 0 to 2. For example, there are many numbers that fall between 0 and 1: ½, ¼, ¾, 0.24, 0.3333, etc. There are also different ways to represent each of these numbers, and some of these numbers are eauivalent.

Other Uses: 1st grade: Zoom in on

numbers 10-20 and locate 13

2nd/3rd grade: 400 - 800 and locate numbers between

5th/6th grade: Zoom in on 0 - .6 and ask students to locate $\frac{1}{2}$

what ½ or ¾ looks like, an understanding of what ¼ of a pie means, or an understanding of the idea that fraction and decimal numbers are part of a whole amount, students will struggle with understanding this linear model.

Getting Started:

- 1. Introduce the number line by placing the card with the numeral 0 on one end and asking a student to put the card with the numeral 1 anywhere on the number line.
- 2. Then ask students where they would put ½. Why did you put ½ there?
- Then move the 1 further away and ask, "Where does the ½ go now?"
- 4. Ask the question, "Why do those points move?" and discuss.
- 5. Have students add in other fractions like: ¼, ½, ¾, ¾, 2/4, 4/8, 15/16, and 1/100 using the benchmark ½ or knowledge of fractions to help.

Adding to the Number Line:

- Assemble students in a clump facing the Organic Number Line.
- 2. Hold up a card that shows either a picture of a fractional amount or a written numeral representing an amount and ask where they thought the card belonged on the Organic Number Line.

Alternative plan: Give some students or the whole class cards and have them decide individually, in To focus on equivalency, use prompts and questions like these:

- Prove that 2/4 and ½ are equivalent.
- Can you show another way to represent 4/16?

To focus on the whole and parts of the whole, ask questions like this:

 Are this half and this half the same amount? (show two models representing ½, but each with a different whole). Prove it!

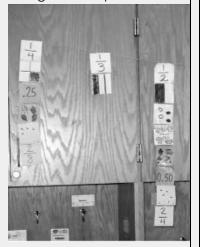
To focus on doubling and halving, ask questions like this:

 What is half of ¼?
 Where does that fraction go on the number line?





Enlarged example below:



partners, or as a whole where those cards belonged and why. Best to start with: 1. Half and whole benchmarks 2. Then think of ways that halves and wholes are represented and add to you number line. 3. Later add the quarter benchmarks. 4. Eventually have discussions about where ½ is located on the number line.	
---	--

Ten Wand

Ten Wand					
Big Ideas & Description	Lesson Plan	Questions	Links/Images		
Combinations of ten Commutative property Part-part-whole ideas Ten-structure and five-structure The Ten Wand is made up of ten Unifix cubes, five of one color and five of a different color. The wand breaks in two pieces at various places (decomposing the ten) to help students see combinations visually.	Materials: A class set of Ten Wands (wands are made up of 5 unifix* cubes of one color and 5 unifix cubes of a different color to make ten) *Note: unifix cubes are easier for K-1 students to manipulate, whereas multi-link cubes (as pictured to the right) stay together better 1. The first time you do this routine, you can add a little drama (e.g., Teacher is the queen of ten with a wand and she is very clumsy and always breaks her wand). 2. After the initial launch, students can have their own wands to play around with. They can	How many on the floor and how many in my hand? How did you see seven so quickly? How did you know that's seven without counting it? What is it about the wand that made it easy to see the amount? If we put the parts back together, how many cubes make up the wand now? Why is it still ten? So if there are two on the floor, how many more are needed to complete the broken wand?	Video of Ten Wand Routine Visual of Ten Wands: Little Minds at Wands		

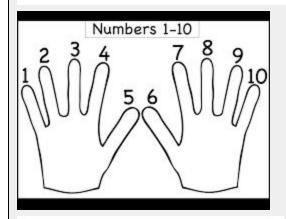
build their own wands making sure they have five of one color and five of another color and put those two together. 3. As they explore with the wands, the teacher can engage the students in a math discussion using the questions to the right. 4. Other days, the teacher can problem to the class: Charlie's wand broke again! How many cubes are on the floor? How many cubes are in his hand? Or, something happened to my wand last night and now! only have 7 cubes. How many cubes am! In missing? 5. During the Ten Wand discussions, the teacher can record the conversation/number sentences on chart paper.

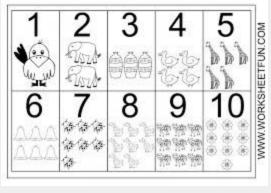
Writing Numbers 1-10

Lots of good worksheets (like some below) found here

•					
••	2	2	2	2	2
•••	3	3	3	3	3
••••	4		ч	14	14
•••••	5	5	5	5	5
••••	6	6	6	6	6
*****	7	7	7	7	7
*****	8	8	8.	8	8
*****	9	-9-	9-	9.	-9
:::::	10	10	10	10	IQ.

				٨	lame_				
1	2	3	4	5	6	7	8	9	10
Î	2	8	1	5	6	7	8	9	10
2		0	10	_	7	1	6	a	2
3	4	8	10	5	7	1	6	9	





1	1		l		
2	2	2	2	2	2
3	3	3	3	3	3
4	Ц	Ц	Ч	Ч	Ч
5	5	5	5	5	5