2016 – 2017

Grade 2

Mathematics Curriculum

Documents



CMS Elementary Math Specialists:

Susan Copeland – susan.copeland@cms.k12.nc.us

Gabr’l Stackhouse – gabrlc.stackhouse@cms.k12.nc.us

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# Grade 2 Year at a Glance – Quarter 1

|  |  |
| --- | --- |
| **Unit 1: *Counting Coins and Combinations*****Estimated Duration: 28 days*** Investigation 1: 5 lessons
* Investigation 2: 8 lessons
* Investigation 3: 5 lessons
* Investigation 4: 7 lessons
 | **CMS Geometry Unit****Estimated Duration: 10 days*** CMS Unit: 8 lessons
 |
| **Unit 3: *Stickers, Number Strings, and Story Problems*****Estimated Duration: 29 days (5 days in quarter 1)*** Investigation 1: 6 lessons
* Investigation 2: 8 lessons (Including 2.5A)
* Investigation 3: 7 lessons (Combine 3.3 & 3.4)
* Investigation 4: 6 lessons
 |

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| --- |
| **Quarter 1 (43 Days)** |
| **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| 29 | 30 | 31 | **September 1** | 2 |
| 5 | 6 | 7 | 8 | 9 |
| 12 | 13 | 14 | 15 | 16 |
| 19 | 20 | 21 | 22 | 23 |
| 26 | 27 | 28 | 29 | 30 |
| **October 3** | 4 | 5 | 6 | 7 |
| 10 | 11 | **12ER** | 13 | 14 |
| 17 | 18 | 19 | 20 | 21 |
| 24 | 25 | 26 | 27 | **28Q** |

**Calendar Key:**

|  |  |
| --- | --- |
|  | Teacher Workday |
|  | Holiday/Annual Leave |
| **ER** | Early Release Day |
| **Q** | End of Quarter |

# Grade 2 Year at a Glance – Quarter 2

|  |  |
| --- | --- |
| **Unit 3: *Stickers, Number Strings, and Story Problems*****Estimated Duration: 29 days (24 days in quarter 2)*** Investigation 1: 6 lessons
* Investigation 2: 8 lessons (Including 2.5A)
* Investigation 3: 7 lessons (Combine 3.3 & 3.4)
* Investigation 4: 6 lessons
 | **CMS Measurement and Data Unit****Estimated Duration: 21 days*** CMS Unit: 17 lessons
 |

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| **Quarter 2 (45 Days)** |
| **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| 31 | **November 1** | 2 | 3 | 4 |
| 7 | 8 | 9 | 10 | 11 |
| 14 | 15 | 16 | 17 | 18 |
| 21 | 22 | 23 | 24 | 25 |
| 28 | 29 | 30 | **December 1** | 2 |
| 5 | 6 | 7 | 8 | 9 |
| 12 | 13 | 14 | 15 | 16 |
| 19 | 20 | 21 | 22 | 23 |
| 26 | 27 | 28 | 29 | 30 |
| **January 2** | 3 | 4 | 5 | 6 |
| 9 | 10 | 11 | 12 | 13 |
| 16 | 17 | 18 | 19 | 20 |
| **23ERQ** |

**Calendar Key:**

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| --- | --- |
|  | Teacher Workday |
|  | Holiday/Annual Leave |
| **ER** | Early Release Day |
| **Q** | End of Quarter |

# Grade 2 Year at a Glance – Quarter 3

|  |  |
| --- | --- |
| **Unit 5: *How Many Floors? How Many Rooms?*** **Estimated Duration: 13 days*** Investigation 1: 6 lessons
* Investigation 2: 5 lessons
 | **Unit 6: *How Many Tens? How Many Ones?*****Estimated Duration: 23 days*** Investigation 1: 4 lessons
* Investigation 2: 5 lessons (Skip 2.5)
* Investigation 3: 6 lessons
* Investigation 4: 3 lessons (Combine 4.1 & 4.2)
 |
| **CMS Partitioning Unit****Estimated Durations: 18 days (9 days in quarter 3)*** CMS Unit: 13 lessons
 |

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| **Quarter 3 (45 Days)** |
| **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| **January 23ERQ** | 24 | 25 | 26 | 27 |
| 30 | 31 | **February 1** | 2 | 3 |
| 6 | 7 | 8 | 9 | 10 |
| 13 | 14 | 15 | 16 | 17 |
| 20 | 21 | 22 | 23 | 24 |
| 27 | 28 | **March 1** | 2 | 3 |
| 6 | **7ER** | 8 | 9 | 10 |
| 13 | 14 | 15 | 16 | 17 |
| 20 | 21 | 22 | 23 | 24 |
| 27 | 28 | 29 | **30Q** | 3/31 |

**Calendar Key:**

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| --- | --- |
|  | Teacher Workday |
|  | Holiday/Annual Leave |
| **ER** | Early Release Day |
| **Q** | End of Quarter |

# Grade 2 Year at a Glance – Quarter 4

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| **CMS Partitioning Unit****Estimated Durations: 18 days (9 days in quarter 4)*** CMS Unit: 13 lessons
 | **Unit 8: *Patterns, Teams, and Paper Clips*****Estimated Duration: 25 days*** Investigation 1: 4 lessons
* Investigation 2: 2 lessons
* Investigation 3: 5 lessons
* Investigation 4: 4 lessons
* CMS: 2 lessons
* Investigation 5: 5 lessons (Common Core 5A.1 – 5A.5)
 |

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| **Quarter 4 (43 Days)** |
| **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| **April 3** | 4 | 5 | 6 | 7 |
| 10 | 11 | 12 | 13 | 14 |
| 14 | 18 | 19 | 20 | 21 |
| 24 | 25 | **26ER** | 27 | 28 |
| **May** **1** | 2 | 3 | 4 | 5 |
| 8 | 9 | 10 | 11 | 12 |
| 15 | 16 | 17 | 18 | 19 |
| 22 | 23 | 24 | 25 | 26 |
| 29 | 30 | 31 | **June 1** | 2 |
| 5 | 6 | 7 | 8 | **9 Q** |

**Calendar Key:**

|  |  |
| --- | --- |
|  | Teacher Workday |
|  | Holiday/Annual Leave |
| **ER** | Early Release Day |
| **Q** | End of Quarter |

# Grade 2 Scope and Sequence

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Unit 1** | **CMS Unit** | **Unit 3** | **Units 4 & 9** | **Unit 5** | **Unit 6** | **CMS Unit** | **Unit 8** |
| ***Counting Coins and Combinations*** | ***Geometry*** | ***Stickers, Number Strings, and Story Problems*** | ***Measurement and Data*** | ***How Many Floors? How Many Rooms?*** | ***How Many Tens? How Many Ones?*** | ***Partitioning*** | ***Patterns, Teams, and Paper Clips*** |
| Counting, addition, subtraction, money, and time | 2-D and 3-D shapes | Counting, addition, subtraction, and time | Counting, measurement, telling time, money, and graphing | Counting, patterns, addition, subtraction, money, and time | Counting, place value, addition, subtraction, money, and time | Partitioning and equal shares  | Counting, place value, addition, subtraction, and telling time |
| 2.OA.12.OA.22.OA.42.NBT.52.NBT.62.MD.72.MD.8 | 2.G.12.G.22.OA.22.MD.7 | 2.OA.12.OA.22.OA.32.NBT.12.NBT.22.NBT.52.NBT.62.NBT.92.MD.8 | 2.MD.12.MD.22.MD.32.MD.42.MD.52.MD.62.MD.72.MD.82.MD.92.MD.10 | 2.OA.22.OA.32.OA.42.NBT.12.NBT.22.NBT.32.NBT.52.MD.72.MD.82.G.12.G.2 | 2.OA.12.OA.22.NBT.12.NBT.22.NBT.32.NBT.42.NBT.52.MD.72.MD.82.G.1 | 2.G.3 | 2.OA.12.OA.22.OA.32.NBT.12.NBT.32.NBT.42.NBT.52.NBT.62.NBT.72.NBT.82.NBT.9 |
| **28 days***8/29 – 10/7* | **10 days***10/10 – 10/21* | **29 days***10/24 – 12/9* | **21 days***12/12 - 1/23* | **13 days***1/25 – 2/10* | **23 days***2/13 – 3/17* | **18 days***3/20 – 4/21* | **25 days***4/24 – 5/26* |
| **Quarter 1***August 29th - October 28th* | **Quarter 2***November 1st - January 23rd*  | **Quarter 3***January 24th - March 30th*  | **Quarter 4***March 31st - June 9th*  |
| **Percentage of Instructional Time Devoted to Each Unit** |
| 17% | 6% | 17% | 13% | 8% | 14% | 11% | 14% |

# Unit 1: *Counting Coins and Combinations Curriculum Map*

*Estimated Duration: 28 days (August 29, 2016 - October 7, 2016)*

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| **Expectations for Students at the End of the Unit** |
| **Students will know:*** Addition is combining two or more quantities
* We add when we have two or more parts and want to know how many altogether (part, part, whole). We add when we get more.
* Unknowns can be in different positions in an addition equation.
* Subtraction is taking part of a quantity away. We also subtract to compare two quantities.
* Unknowns can be in different positions in a subtraction equation
* An array is a combination of rows and columns. Each row must have the same number of squares. Each column must have the same number of squares.
* Equations (number sentences) can be used to represent arrays. The same number is added over-and-over again for an array. Either add the squares in all of the columns or add the squares in all of the rows.
* There are 60 minutes in an hour. There are 60 lines around a clock. Every 5th line is longer so we skip count by 5’s
* A penny is worth 1¢, a nickel is worth 5¢, a dime is worth 10¢, and a quarter is worth 25¢
* Coins can be combined to make a different amount.
* Coins can be traded for other coins of equal value. 5 pennies = 1 nickel, 2 nickels=1 dime, 5 nickels=1 quarter, 2 dimes and 1 nickel=1 quarter, etc
 | **Students will be able to:*** Count a set of objects up to 60 in at least one way
* Determine the difference between two numbers up to 45
* Interpret addition and subtraction story problems
* Have at least one strategy for solving addition and subtraction story problems
* Demonstrate fluency with Plus 1, Plus 2 and Make 10 addition combinations
* Understand what it means to double a quantity
* Exchange coins to create equivalent values up to 25¢
* Count coins up to 25¢
* Name and tell the time on an analog and digital clock to the hour
 |
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| **Investigation 1****Estimated Duration: 5 Days** |
| **Session** | **Student I Will Statements** | **Supporting Accountable Talk** | **Assessment** |
| **1.1** | * I will write equations that match my representations
* I will explain how my representations match my equations
* I will add number strings by counting all, on or numerical reasoning
* I will demonstrate the time using an analogue clock
 | * I used the equation “4+3+5”. In my building the four is \_\_\_\_ and the 3 is\_\_\_\_ and the 5 is \_\_\_\_\_.
* I figured out how many altogether by \_\_\_\_\_\_\_
* I know that it is \_\_\_\_\_\_ o’clock because\_\_\_\_\_\_
 | * Maria, Jen and Barry are collecting cubes. Maria has 3, Jen has 5 and Barry has 7. How many cubes do they all have together? Show how you solved your problem.
 |
| **1.2** | * I will reason about the relationship between shapes
* I will cover an area using various shapes
* I will determine the number of shapes used to cover an area using various strategies
 | * I used \_\_\_\_ hexagons to cover my shape
* I used \_\_\_\_ pattern blocks to cover my shape. I know because \_\_\_\_
 | * Jose had 10 bouncy balls. He dropped 4 and then he dropped 2 more. How many bouncy balls does he have now?
 |
| **1.3** | * I will using reasoning to compare and order numbers
* I will justify my comparisons and use the number line to support my reasoning
 | * I chose the number \_\_\_\_ because it’s greater than/less than \_\_\_\_.
 | * Maria used 6 red blocks, 2 blue blocks and 4 green blocks to make a flower. How many blocks were used to make the flower?
 |
| **1.4** | * I will reason about numbers between 0 and 100
* I will analyze the 100 chart for patterns
* I will compare numbers using <,> and =
 | * I chose the number \_\_\_\_ because it’s greater than/less than \_\_\_\_.
* A number line is line a 100 chart because\_\_\_\_\_\_\_
 | * Joseph had 11 erasers and his sister borrowed some of them. Now he has 5 erasers. How many did his sister borrow?
 |
| **1.5** | * I will decompose and compose numbers using various strategies
* I will share various strategies for counting accurately
 | * My equation that equals (7) is \_\_\_\_\_\_. I picked those numbers because \_\_\_\_\_.
* Another way to show (#) is \_\_\_\_\_\_\_\_\_.
 | * Mike found 4 dollars on the floor and some more money in his pocket. Now he has 12 dollars. How much money was in his pocket?
 |

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| **Investigation 2****Estimated Duration: 8 Days** |
| **Session** | **Student I Will Statements** | **Supporting Accountable Talk** | **Assessment** |
| **2.1** | * I will evaluate expressions and determine if they are true
* I will justify my evaluation
* I will compare quantities and determine which is more
* I represent my solution
 | * I knew we would have enough for the class because\_\_\_\_\_\_
* The strategy I used to get the answer was\_\_\_\_\_\_\_
* I used the cubes like this to figure it out
 | * There are 8 birds in the tree. Three are yellow and the rest are blue. How many are blue?
 |
| **2.2** | * I will explore coin value and compare and contrast coins.
 | * Pennies are like nickels because\_\_\_\_\_
* Pennies and quarters are different because\_\_\_\_\_\_\_\_
 | * Cindy has 4 medals and Martha has 7 medals. How many more medals does Martha have than Cindy?
 |
| **2.3** | * I will compare and contrast coins
* I will compare quantities and determine which is more
* I represent my solution
 | * Pennies are like nickels because\_\_\_\_\_
* Pennies and quarters are different because\_\_\_\_\_\_\_\_
* The strategy I used to get the answer was\_\_\_\_\_\_\_
* I used the cubes like this to figure it out
 | * James has 9 apples and Luis has 3 apples. How many fewer apples does Luis have than James?
 |
| **2.4** | * I will add quantities within 25.
* I will trade coins of equal value
 | * I can make a trade. I will trade a \_\_\_\_ for a \_\_\_\_\_\_\_!
 | * Lisa has 8 fish. How many fish can she put in her round fish tank and how many can she put in her rectangle fish tank? List all the ways you can think of.
 |
| **2.5** | * I will collect and organize data
* I will use many strategies to determine the total number of cubes
* I will describe my strategy using words
 | * The strategy I used to get the answer was\_\_\_\_\_\_\_
* I used the cubes like this to figure it out
 | * Kaneka has 4 more pieces of candy than Susan. Susan has 5 pieces of candy. How many pieces of candy does Kaneka have?
 |
| **2.6** | * I will add one or two to amounts to get a total
* I will describe patterns in counting numbers as I write them
* I will add quantities within 25.
* I will trade coins of equal value
 | * The strategy I used to get the answer was\_\_\_\_\_\_\_
* I used the cubes like this to figure it out
 | * Rebekah has 3 fewer stickers than Nikia. Nikia has 5 stickers. How many stickers does Rebekah have?
 |
| **2.7** | * I will analyze the addition strategies of my classmates
* I will compare my strategies to strategies of my classmates
* I will describe solution strategies for adding
 | * The strategy I used to get the answer was\_\_\_\_\_\_\_
* I used the cubes like this to figure it out
 | * Drew has 57¢ in his pocket. Which coins could he have in his pocket?
 |
| **2.8** | * Assessment Lesson
 | * Assessment Lesson
 | * Assessment Lesson
 |

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| **Investigation 3****Estimated Duration: 5 Days** |
| **Session** | **Student I Will Statements** | **Supporting Accountable Talk** | **Assessment** |
| **3.1** | * I will reason about combinations that make ten
* I will evaluate my partner’s combinations that make ten for accuracy
* I will describe “how many” tens and some more from dot arrangements
 | * I know that \_\_\_ and \_\_\_\_ make 10 because\_\_\_\_\_\_\_
* I think you should choose\_\_\_ to go with your 6 to make 10 because\_\_\_\_\_\_
 | * Marisol is trying to make 16. She already has a 6 and a 2. Show two ways she can figure out how many more she will need.
 |
| **3.2** | * I will choose the missing part to make 10
* I will reason about combinations that make 10
* I will describe how many tens and some more from dot arrangements
 | * I know that \_\_\_ and \_\_\_\_ make 10 because\_\_\_\_\_\_\_
* I think you should choose\_\_\_ to go with your 6 to make 10 because\_\_\_\_\_\_
 | * Ramon ate 4 fewer ice pops than Juana. Juana ate 9 ice pops. How many ice pops did Ramon eat?
 |
| **3.3** | * I will describe the strategy I used to make 10
* I will choose the missing part to make 10
* I will reason about combinations that make 10
* I will describe how many tens and some more from dot arrangements
 | * I know that \_\_\_ and \_\_\_\_ make 10 because\_\_\_\_\_\_\_
* I think you should choose\_\_\_ to go with your 6 to make 10 because\_\_\_\_\_\_
 | * Alex is 3 years older than Janice. Janice is 11. How old is Alex?
 |
| **3.4** | * I will identify patterns to make in combinations that make 10
* I will compare and contrast various strategies to make 10.
 | * I know that \_\_\_ and \_\_\_\_ make 10 because\_\_\_\_\_\_\_
* I think you should choose\_\_\_ to go with your 6 to make 10 because\_\_\_\_\_\_
 | * 20 apples are on the table. Some are red and some are green. How many red apples and how many green apples could be on the table?
 |
| **3.5** | * I will monitor my fluency of combinations within 10
* I will use strategies to help solve problems that I do not know.
 | * I can use \_\_\_\_ to help me solve \_\_\_\_\_
 | * Mark collected 64¢ in a jar. Which coins might he have in his pocket?
 |

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| **Investigation 4****Estimated Duration: 7 Days** |
| **Session** | **Student I Will Statements** | **Supporting Accountable Talk** | **Assessment** |
| **4.1** | * I will interpret addition story problems
* I will describe the strategies I used to solve problems
 | * I counted to answer this question. I used my fingers like this\_\_\_\_\_
* I counted on like this\_\_\_\_\_\_\_
 | * Write a story for the following expression. 7 + 5 = 12
 |
| **4.2** | * I will compose and decompose to make 15
* I will combine numbers using making tens as a strategy
 | * I use \_\_\_\_\_ because it was a combination of 10.
 | * Kendra is playing basketball. She scored points in the 1st quarter of the game and score 3 in the next quarter. She scored 9 points by half time. How many points did she score in first quarter?
 |
| **4.3** | * I will interpret subtraction story problems
* I will describe the strategies I used to solve problems
 | * I counted to answer this question. I used my fingers like this\_\_\_\_\_
* I counted on like this\_\_\_\_\_\_\_
* I used cubes to solve like this\_\_\_\_\_\_\_
 | * + Write a story for the following expression. 14-6=8
 |
| **4.4** | * I will record different strategies for my solution
* I will interpret addition and subtraction story problems
* I will describe my solution strategies
 | * I used cubes to solve this story by\_\_\_\_\_\_
* My strategy is like \_\_\_\_\_’s strategy because
* I solves it differently because I \_\_\_\_\_\_\_
 | * Maria is playing guess my number on the number line. Her teacher gave these clues:
	+ < 25
	+ > 6
	+ odd number
	+ What number could it be? Justify!
 |
| **4.5** | * I will record different strategies for my solution
* I will interpret addition and subtraction story problems
* I will describe my solution strategies
 | * I used cubes to solve this story by\_\_\_\_\_\_
* My strategy is like \_\_\_\_\_’s strategy because
* I solves it differently because I \_\_\_\_\_\_\_
 | * Write a story for the following expression. 6 - \_\_\_= 4
 |
| **4.6** | * I will write equations to represent doubling situations
* I will write doubling riddles
* I will use various solutions and represent my thinking using numbers, pictures and words
 | * When I double \_\_\_, then I have \_\_\_\_.
 | * Write a story for the following expression. 8 - \_\_\_ = 5
 |
| **4.7** | * I will double an amount and create an array
* I will describe the dimensions of an array
* I will write an equation for the area of a rectangle using doubles
 | * I used cubes to solve this story by\_\_\_\_\_\_
* My strategy is like \_\_\_\_\_’s strategy because
* I solves it differently because I \_\_\_\_\_\_\_
* My equation matches this array because\_\_\_\_\_\_\_
 | * Janet collected 78¢ in a jar. Which coins might he have in his pocket?
 |
| **4.8** | * End of Unit Assessment
 | * End of Unit Assessment
 | * End of Unit Assessment
 |

# *CMS Geometry Unit*

*Estimated Duration: 10 days (October 10, 2016 – October 21, 2016)*

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| **Expectations for Students at the End of the Unit** |
| **Students will know:*** A triangle has 3 sides and 3 angles.
* A quadrilateral has 4 sides and 4 angles.
* A pentagon has 5 sides and 5 angles.
* A hexagon has 6 sides and 6 angles.
* A square has 4 equal sides and 4 right angles.
* A rectangle has two pairs of equal sides that are on opposite sides and 4 right angles.
* A trapezoid has 4 sides with 2 sides that would never cross even if they kept going and two sides that would cross if they kept going.
* A cube is a 3-dimentional shape with 6 equal faces and 8 vertices.
* A row goes left to right. A column goes up and down.
* How to make the time on a clock. There are 60 minutes in an hour. There are 60 lines around a clock. Every 5th line is longer so we skip count by 5’s.
 | **Students will be able to:*** Identify, draw, and label polygons.
* Create and label rectangles from written directions.
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| **CMS Geometry Unit****Estimated Duration: 3 Days** |
| **Lesson** | **Student I Will Statements** | **Supporting Accountable Talk** | **Assessment** |
| **CMS LESSON 1** | * I will describe attributes of shapes
* I will sort shapes by attribute
 | * I sorted by\_\_\_\_\_\_\_\_
* All of these shapes are the same because\_\_\_\_\_\_\_
* These shapes do not have\_\_\_\_\_\_-
* This shape fits the rule because\_\_\_\_\_\_
 | * Within Unit
 |
| **CMS LESSON 2** | * I will compare and contrast my sort
* I will create shapes using attribute clues
* I will build and draw shapes using attributes as clues
* I will identify shapes given verbal descriptions
 | * \_\_\_’s (student) (polygon) looked different from mine. I know that they’re the same polygon because of \_\_\_\_\_\_(attribute).
* I used my geoboard to create a \_\_\_\_ (polygon). I can describe my \_\_\_ (polygon) with the words \_\_\_\_\_.
* I know that the polygon I created is a \_\_\_ because \_\_\_\_\_\_.
* I guess that your polygon is a \_\_\_\_ (polygon) because \_\_\_.
 | * Within Unit
 |
| **CMS LESSON 3** | * I will compare and contrast my sort
* I will create shapes using attribute clues
* I will build and draw shapes using attributes as clues
* I will identify shapes given verbal descriptions
 | * \_\_\_’s (student) (polygon) looked different from mine. I know that they’re the same polygon because of \_\_\_\_\_\_(attribute).
* I used my geoboard to create a \_\_\_\_ (polygon). I can describe my \_\_\_ (polygon) with the words \_\_\_\_\_.
* I know that the polygon I created is a \_\_\_ because \_\_\_\_\_\_.
* I guess that your polygon is a \_\_\_\_ (polygon) because \_\_\_.
 | * Within Unit
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| **Investigations Unit 2, CMS Lesson, and Investigations Unit 1****Estimated Duration: 5 Days** |
| **Session** | **Student I Will Statements** | **Supporting Accountable Talk** | **Assessment** |
| **2.3** | * I will order rectangles from largest to smallest.
* I will cover rectangles with an array of tiles.
* I will use attributes to compare rectangles.
 | * My rectangle is properly covered because \_\_\_\_.
* I know these rectangles are in order, because \_\_\_\_.
 | * SAB pg. 18 can be used to assess students’ ability to deciding which shape by finding the sum of the squares in the rectangular arrays.
 |
| **2.4** | * I will arrange square tiles into a rectangular array.
* I will describe a rectangular array of tiles.
* I will create a rectangle array, based on verbal clues.
 | * My rectangular arrangement has \_\_ rows and \_\_\_ columns.
* An equation to match my arrangement would be \_\_\_\_.
* My array matches your clues because \_\_\_\_.
 | * SAB pg. 20 can be used to assess students’ ability to create arrays given a certain number of columns and rows.
 |
| **2.5** | * I will create and draw rectangles using riddle clues.
* I will decipher between rows and columns.
 | * My array matches your clues because \_\_\_\_.
* My rectangular arrangement has \_\_ rows and \_\_\_ columns.
* An equation to match my arrangement would be \_\_\_\_.
 | * SAB pg. 22 (questions 3 and 4) can be used to assess students’ ability to identify 2-D shapes.
 |
| **CMS LESSON 7** | * I will recognize the difference between a 2D and 3D shape.
* I will describe the attributes of a 3D shape.
 | * I notice that all the block with \_\_ faces have \_\_\_ shaped faces.
* A \_\_\_(3D shape) has \_\_\_ faces/corners/edges.
* A \_\_\_\_ (3D shape) has \_\_\_ (amount) more/less faces/corners/edges than \_\_\_ (3D shape).
 | * Within Unit
 |
| **1.5** | * I will compose and decompose 3D figures
* I will reason to find equivalent shapes
 | * I notice that all the block with \_\_ faces have \_\_\_ shaped faces.
* A \_\_\_(3D shape) has \_\_\_ faces/corners/edges.
* A \_\_\_\_ (3D shape) has \_\_\_ (amount) more/less faces/corners/edges than \_\_\_ (3D shape).
 | * Jacob used 8 blue rhombus to make a running man. How many triangles would he use to make the same running man? Show your thinking.
 |

# Unit 3: *Stickers, Number Strings, and Story Problems*

*Estimated Duration: 29 days (October 24, 2016 – December 9, 2016)*

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| **Expectations for Students at the End of the Unit** |
| **Students will know:*** Unknowns can be in different positions in an addition equation.
* Unknowns can be in different positions in a subtraction equation.
* Even numbers can be arranged so that everyone has a partner. Even numbers can be separated into two equal groups (doubles problems). Even numbers are the numbers we say when we count by 2’s starting with 0.
* Odd numbers cannot be arranged so that everyone has a partner. Odd numbers cannot be separated into two equal groups. We don't say odd numbers when we count by 2’s.
* The two digits of a number represent the tens and ones. The first digit represents groups of 10 and the second number represents number of ones.
* Different combinations of tens and ones can be used to represent the same number.
* Skip-counting means that you add or take away the same amount over-and-over again.
* When adding or subtracting 2 digit numbers I can use counting on, decomposing numbers, place value, commutative property, the relationship between addition and subtraction, or pictorial representation.
* Addition facts can be used to solve subtraction problems.
* When we explain why our strategies work, we use a generalization (math rule) that works across similar problems.
 | **Students will be able to:*** Use doubles and near-doubles to solve equations.
* Use known combinations to add two or more numbers in different orders.
* Use a strategy to solve for the difference.
* Correctly use symbols (standard notation) to represent a variety of situations.
* Solve problems with an unknown change.
* Record strategies for solving a variety story problems.
* Determine if a number is even/odd using partners and teams/equal groups.
* Show tens and ones using models.
* Fluently count using groups of 2,5, and 10.
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| **Investigation 1****Estimated Duration: 6 Days** |
| **Session** | **Student I Will Statements** | **Supporting Accountable Talk** | **Assessment** |
| **1.1** | * I will use known combinations to add two or more numbers in different orders.
* I will interpret story context with multiple addends
* I will represent solution strategies
* I will explain various solution strategies
 | * My equation’s total is \_\_\_\_. If I changed the order of my addends, \_\_\_\_\_ will happen.
* The addends in my equation are \_\_\_\_.
 | * 7+4+2+3+6=\_\_\_\_
 |
| **1.2** | * Solve number strings
* I will explain strategies used to solve number strings
* I will evaluate the efficiency of strategies for adding
* I will explore near-double combinations and strategies for finding sums of near-doubles
 | * I can find the total of the number string by \_\_\_\_\_.
* I used \_\_\_ doubles/near doubles fact to help me solve my equation because \_\_\_\_.
 | * SAB pg. 6 can be used to assess students’ ability to practice solving number strings.
 |
| **1.3** | * I will use known combinations to add two or more numbers in different orders.
* I will interpret story context with multiple addends
* I will represent solution strategies
* I will explain various solution strategies
 | * I used \_\_\_\_(symbol) to solve my equation because \_\_\_.
 | * SAB pg. 7 can be used to assess students’ ability to find 3 addends to equal a given number.
 |
| **1.4** | * I will add multiple addends for sums within 20
* I will represent my solution strategies
* I will compare and contrast strategies with my partners
 | * I used \_\_\_ strategy because \_\_\_.
* My strategy worked because \_\_\_\_.
 | * Luis collected baseball cards. He got 5 on Monday, 4 on Tuesday, 8 on Wednesday and 2 on Thursday. How many baseball cards did he collect altogether?
 |
| **1.5** | * I will identify addition facts that I have yet to master
* I will identify strategies to use to master each unknown fact
* I will add multiple addends for sums within 20
* I will represent my solution strategies
* I will compare and contrast strategies with my partners
 | * \_\_\_\_ doubles/near doubles fact helped me solve my equation because \_\_\_\_.
 | * SAB pg. 14 & 15 can be used to assess students’ ability to develop strategies for adding multiple addends together and telling time to the half hour.
 |
| **1.6** | * I will identify addition facts that I have yet to master
* I will identify strategies to use to master each unknown fact
* I will add multiple addends for sums within 20
* I will represent my solution strategies
* I will compare and contrast strategies with my partners
 | * Any of above because this is an assessment session that contains activities from previous sessions.
 | * RM pg. M17 can be used to assess students’ fluency with adding within 100 using multiple addends.
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| **Investigation 2****Estimated Duration: 8 Days** |
| **Session** | **Student I Will Statements** | **Supporting Accountable Talk** | **Assessment** |
| **2.1** | * I will describe the action of addition situations.
* I will correctly use symbols (standard notation) to represent a situation.
* I will solve addition story problems with totals up to 45.
* I will record strategies for solving problems.
 | * This is an addition story problem because \_\_\_\_.
* An equation to match the story problem is \_\_\_\_.
* I solved \_\_+\_\_ by \_\_\_\_\_.
 | * SAB pg. 20 can be used to assess students’ ability to develop strategies for solving addition story problems.
 |
| **2.2** | * I will describe the action of subtraction situations.
* I will correctly use symbols (standard notation) to represent a situation.
* I will interpret subtraction story problems.
* I will record strategies for solving problems.
 | * This is a subtraction story problem because \_\_\_\_.
* An equation to match the story problem is \_\_\_\_.
* I solved \_\_-\_\_ by \_\_\_\_\_.
 | * SAB pg. 24 can be used to assess students’ ability to identify sums of a given number.
 |
| **2.3** | * I will describe the action of addition and subtraction situations.
* I will correctly use symbols (standard notation) to represent a situation.
* I will solve addition and subtraction story problems with totals up to 45.
* I will record strategies for solving problems.
 | * This is a subtraction/addition story problem because \_\_\_\_.
* An equation to match the story problem is \_\_\_\_.
* I solved \_\_-/+\_\_ by \_\_\_\_\_.
 | * + SAB pg. 27 can be used to assess students’ ability to develop strategies for solving addition and subtraction story problems.
 |
| **2.4** | * I will describe the action of addition and subtraction situations.
* I will correctly use symbols (standard notation) to represent a variety of situations.
* I will solve problems with an unknown change.
* I will record strategies for solving a variety story problems.
 | * This is a subtraction/addition story problem because \_\_\_\_.
* An equation to match the story problem is \_\_\_\_.
* I solved \_\_-/+\_\_ by \_\_\_\_\_.
* I solved \_\_ +/- \_x\_ = y by \_\_\_\_\_.
 |  |
| **2.5A** | * I will describe the action of addition and subtraction situations.
* I will correctly use symbols (standard notation) to represent a variety of situations.
* I will solve problems with an unknown change.
* I will record strategies for solving a variety story problems.
 | * This is a subtraction/addition story problem because \_\_\_\_.
* An equation to match the story problem is \_\_\_\_.
* I solved \_\_-/+\_\_ by \_\_\_\_\_.
* I solved \_x\_ +/- \_\_ = y by \_\_\_\_\_.
 | * SAB pg. 32C can be used to assess students’ ability to develop strategies for solving missing parts equations.
 |
| **2.5** | * I will describe the action of addition and subtraction situations.
* I will correctly use symbols (standard notation) to represent a variety of situations.
* I will solve problems with an unknown change.
* I will record strategies for solving a variety story problems.
 | * This is an subtraction/addition story problem because \_\_\_\_.
* An equation to match the story problem is \_\_\_\_.
* I solved \_\_-/+\_\_ by \_\_\_\_\_.
* I solved \_x +/- \_\_\_ = y by \_\_\_\_\_.
* I figured out \_\_ counters are hidden by \_\_\_\_.
 | * SAB pg. 33 can be used to assess students’ ability to develop strategies for solving missing parts equations.
 |
| **2.6** | * I will create a story problem to match my equation.
* I will describe the action of addition and subtraction situations.
* I will correctly use symbols (standard notation) to represent a variety of situations.
* I will solve problems with an unknown change.
* I will record strategies for solving a variety of story problems.
 | * This is an subtraction/addition story problem because \_\_\_\_.
* An equation to match the story problem is \_\_\_\_.
* I solved \_\_-/+\_\_ by \_\_\_\_\_.
* I solved \_x +/- \_\_\_ = y by \_\_\_\_\_.
* I figured out \_\_ counters are hidden by \_\_\_\_.
* My story problem matches my equation because \_\_\_.
 | * SAB pg. 40 can be used to assess students’ ability to develop strategies for solving missing parts equations.
 |
| **2.7** | * I will correctly use symbols (standard notation) to represent a variety of situations.
* I will solve problems with an unknown change.
* I will record strategies for solving a variety of story problems.
 | * This is an subtraction/addition story problem because \_\_\_\_.
* An equation to match the story problem is \_\_\_\_.
* I True d \_\_-/+\_\_ by \_\_\_\_\_.
* I solved \_x +/- \_\_\_ = y by \_\_\_\_\_.
* I figured out \_\_ counters are hidden by \_\_\_\_.
* My story problem matches my equation because \_\_\_.
 | * RM pg. M20 or M21 can be used to assess students’ ability to solve story problems, use and record strategies.
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| **Investigation 3****Estimated Duration: 7 Days** |
| **Session** | **Student I Will Statements** | **Supporting Accountable Talk** | **Assessment** |
| **3.1** | * I will determine if a number is even/odd using partners and teams/equal groups
 | * I know my number is even/odd because \_\_\_\_\_.
* I solved my problem by \_\_\_\_.
 | * SAB pg. 44 can be used to assess students’ ability to develop strategies for solving addition equations
 |
| **3.2** | * I will determine if a number is even/odd using partners and teams/equal groups
 | * I know my number is even/odd because \_\_\_\_\_.
* I solved my problem by \_\_\_\_.
* I know that if \_\_\_ is left over, \_\_\_ (number) will always be even/odd because \_\_\_\_.
 | * + SAB pg. 50 can be used to assess students’ ability to identify odd and even numbers.
 |
| **3.3 & 3.4****Combine** | * I will determine if a number is even/odd using partners and teams/equal groups.
* I will fluently count using groups of 5 and 10.
 | * I solved this problem by counting in groups of \_\_\_\_ because \_\_\_\_\_\_.
* I chose to solve my problem using \_\_\_\_ (manipulatives/strategies)
 | * RM pg. M23 can be used to assess students’ ability to determine if a number is even or odd.
	+ SAB pg. 54 can be used to assess students’ ability to skip count by 10s.
 |
| **3.5** | * I will identify coins and their values.
* I will identify and use coin equivalencies up to 50 cent.
* I will fluently count using groups of 5 and 10.
 | * This coin is called a \_\_\_\_. Its value is \_\_\_\_. I know this because \_\_\_\_.
* A (coin) is worth \_\_\_\_ (other coins). I know because \_\_\_\_ equals \_\_\_\_.
* I chose to count my coins in \_\_\_ order because \_\_\_\_\_.
 | * + SAB pg. 55 can be used to assess students’ ability to find different combinations to make the same value.
 |
| **CMS Lesson** | * I will identify coins and their values.
* I will identify and use coin equivalencies.
* I will trade coins in order to spend money.
 | * This coin is called a \_\_\_\_. Its value is \_\_\_\_. I know this because \_\_\_\_.
* A (coin) is worth \_\_\_\_ pennies. I know because \_\_\_\_ equals \_\_\_\_.
* I can trade\_\_\_\_\_ (coin) for \_\_\_\_\_ in order to spend\_\_\_\_\_\_.
 |  |
| **3.6** | * I will identify coins and their values.
* I will identify and use coin equivalencies up to 50 cent.
* I will fluently count using groups of 2, 5, and 10.
 | * This coin is called a \_\_\_\_. Its value is \_\_\_\_. I know this because \_\_\_\_.
* A (coin) is worth \_\_\_\_ (other coins). I know because \_\_\_\_ equals \_\_\_\_.
* I chose to count my coins/objects in \_\_\_ order because \_\_\_\_\_.
 |  |
| **3.7** | * I can identify coins and their values.
* I can identify and use coin equivalencies up to 50 cent.
* I can fluently count using groups of 2, 5, and 10.
 | * This coin is called a \_\_\_\_. Its value is \_\_\_\_. I know this because \_\_\_\_.
* A (coin) is worth \_\_\_\_ (other coins). I know because \_\_\_\_ equals \_\_\_\_.
* I chose to count my coins/objects in \_\_\_ order because \_\_\_\_\_.
 | * SAB pg. 61 can be used to assess students’ ability to add coins and trade for equal values.
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| **Investigation 4****Estimated Duration: 6 Days** |
| **Session** | **Student I Will Statements** | **Supporting Accountable Talk** | **Assessment** |
| **4.1** | * I will fluently count using groups of 2, 5, and 10.
* I can exemplify that the first digit of a 2-digit number denotes the groups of ten.
 | * I chose to count my objects in groups of \_\_\_\_ because \_\_\_\_\_.
* I created \_\_\_\_ towers of ten because \_\_\_\_\_\_.
* \_\_\_ (number) makes \_\_\_ towers of ten and \_\_\_\_ leftovers. I know this because \_\_\_\_.
 | * SAB p. 63 can be used to assess students’ ability to identify skip counting patterns and leftovers.
 |
| **4.2** | * I will exemplify that the first digit of a 2-digit number denotes the groups of ten.
 | * I created \_\_\_\_ towers of ten because \_\_\_\_\_\_.
* \_\_\_ (number) makes \_\_\_ towers of ten and \_\_\_\_ leftovers. I know this because \_\_\_\_.
 | * SAB pg. 66 can be used to assess students’ ability to add multiple numbers together and use the strategy of making 10s.
 |
| **4.3** | * I will fluently solve near double and plus ten combinations.
* I will exemplify that the first digit of a 2-digit number denotes the groups of ten.
 | * When I added a (tower of) ten my number became \_\_\_ because \_\_\_\_.
 | * SAB pg. 69-70 can be used to assess students’ ability to solve word problems with plus 10 combinations.
 |
| **4.4** | * I will break a number into tens and ones to solve problems.
* I will show tens and ones using models.
 | * I know there are \_\_\_\_ stickers because \_\_\_\_.
* I need \_\_\_\_ strips and \_\_ singles to create \_\_\_ (number) because \_\_\_\_.
 | * SAB pg. 74 can be used to assess students’ ability to solve word problems involving place value and money.
 |
| **4.5** | * I will show tens and ones using models.
* I will show a number in multiple ways.
* I will fluently count using groups of 10.
 | * I need \_\_\_\_ tens and \_\_ ones to create \_\_\_ (number) because \_\_\_\_
* Another way to create \_\_\_ (number) is to use \_\_\_ tens and \_\_\_ ones.
 | * SAB pg. 77 can be used to assess students’ ability to determine the value of tens and ones.
 |
| **4.6** | * I will show tens and ones using models.
* I will fluently count using groups of 10.
* I will fluently solve near double combinations.
* I will solve problems with an unknown change.
 | * Same as above
 | * RM pg. M39-M41 can be used to assess students’ ability to fluently add within 100 and create groups of tens and ones.
 |

# *CMS Measurement and Data Unit*

*Estimated Duration: 21 days (December 12, 2017 – January 23, 2017)*

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| **Expectations for Students at the End of the Unit** |
| **Students will know:*** When we measure, we repeat the same-size unit over and over with no gaps or overlaps to see how long something is.
* We can make 1 foot with 12 inches, 1 yard with 3 feet, and 1 meter with 100 centimeters.
* It takes more of a smaller unit to measure a given length.
* A centimeter is the size of an ones cube.
* An inch is the size of a square tile.
* A yard or a meter is about the height of a door knob.
* If two objects are measured with the same unit, the one with more units is longer and the one with less units is shorter.
* We solve word problems involving length just like other word problems. We just need to remember to include the unit in our answer.
* Adding and subtracting can be done in jumps of more than 1 such as by 10’s or more from any number on the number line.
* Numbers can be decomposed to get to the next 10 on the number line.
* The numbers on a clock represent the hours.
* The longer hand tells the minutes. It’s longer because it has to reach all the way to the lines and dots.
* The shorter hand tells the hour. It’s short because it only has to reach the numbers on the clock.
 | **Students will be able to:*** Make a representation to communicate survey results.
* Represent data using pictures, bar graphs, tallies, and or Venn Diagrams.
* Compare and contrast different representations of data.
* Ask and answer questions about survey data.
* Create addition equations to show the sum of responses collected from survey data.
* Compare lengths of objects when measured in cm, in, ft, and m.
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| **CMS Measurement and Data Unit****Estimated Duration: 16 Days** |
| **Lesson** | **Student I Will Statements** | **Supporting Accountable Talk** | **Assessment** |
| **1** | * I will measure & record the length of the object using non-standard units.
 | * I discovered that \_\_\_ (object) is shorter/longer than \_\_\_\_ (object) because \_\_\_\_.
* To measure, I lined up my \_\_\_\_(measurement tool) and \_\_\_\_ (object) to \_\_\_\_ to make sure that they were even.
* When we measure the \_\_\_\_ with cubes it was \_\_\_ cubes long.
 | * Final Task measuring an object in the “After” section of the lesson can be used to assess students’ ability to measure an object and describe how two measurements are related.
 |
| **2** | * I will measure & record the length of the object using non-standard units.
 | * When I measured with paper clips/cubes the difference in lengths is \_\_\_\_ because \_\_\_\_\_.
 | * Measuring the Horse Stall activity sheet can be used to assess students’ ability to measure an object and describe how two measurements are related.
 |
| **3** | * I will measure & record the length of an object using a 1 inch measurement tool.
 | * My object is \_\_\_ inches. I know this because \_\_\_.
* Explain how you used your measurement tool to find the length in inches.
 | * Student Activity Book (SAB) pg. 19 can be used to assess students’ ability to accurately measure objects using a measuring tool.
 |
| **4** | * I will identify strategies to accurately measure using a 12 inch measurement tool.
* I will measure objects that are longer than 12 inches.
 | * I know I accurately measured \_\_\_\_\_ (object) because \_\_\_\_\_\_. Explain in detail how you used your measurement tool.
* If an object is longer than my measurement tool, I should \_\_\_\_\_ because
 | * SAB pg. 25 can be used to assess students’ ability to accurately measure objects and compare measurements.
 |
| **5** | * I will identify strategies to accurately measure using a 12 inch measurement tool.
* I will compare the length of two objects using the same measurement unit.
 | * I discovered that \_\_\_ (object) is shorter/longer than \_\_\_\_ (object) because \_\_\_\_.
* The difference in length of the bug’s \_\_\_\_ is \_\_\_\_. The equation that matches is \_\_\_.
 | * A Bug’s Length Activity Sheet can be used to assess students’ ability to accurately measure objects and compare measurements.
 |
| **6** | * I will identify strategies to accurately measure using a 12 inch measurement tool.
* I will compare the length of two objects using the same measurement unit.
 | * The stall was too small because \_\_\_\_\_\_\_.
* \_\_\_ (object) is \_\_\_ (feet/inches). I measured using \_\_\_\_ (tool) because \_\_\_\_.
 | * Resource Master (RM) M6 can be used to assess students’ ability to describe how two measurements relate.
 |
| **7** | * I will use the correct tool to measure objects to the nearest foot.
* I will compare the length of two objects measured with the same measurement tool.
 | * \_\_\_\_ (object) is about \_\_\_ ft. I know this because \_\_\_\_.
* \_\_\_ is longer/shorter than \_\_\_ by \_\_\_\_ ft/in. The equation that matches this is \_\_\_.
 |  |
| **8** | * I will investigate to determine that a meter is equivalent 100 cm.
* I will measure objects using cm.
* I will estimate the length of an object before measuring it.
 | * \_\_\_ (object) is \_\_\_cm long. To measure this object, I \_\_\_\_\_\_.
* \_\_\_\_ is approximately 1 meter. I know this because \_\_\_\_\_\_.
 | * [DPI 2.MD.3 Assessment Task](http://commoncoretasks.ncdpi.wikispaces.net/2.MD.1-2.MD.4%2BTasks)
	+ Click on 2.MD Task 3a. This task can be used to assess students’ ability to measure objects in centimeters and compare measurements.
 |
| **9** | * I will compare the length of different objects when measured with the same unit.
 | * \_\_\_ is \_\_\_ cm longer/shorter than \_\_\_ because.
 | * Investigations Unit 9 End of Unit Assessment M32 should be used as a formally assess students’ ability to measure using two different units and compare measurements.
 |
| **10** | * I will find the difference in the length between two objects.
 | * \_\_\_ is \_\_\_ cm/in/m/ft. longer/shorter than \_\_\_ because. I was able to figure this out by \_\_\_\_\_.
* I used \_\_\_\_ equation to solve my problem because \_\_\_\_.
 | * SAB pg. 16 can be used to assess students’ ability to solve compare word problems involving lengths.
 |
| **11** | * I will find the difference in the length between two objects.
 | * \_\_\_’s jump was \_\_ m longer/shorter than \_\_\_’s jump. My team determined this by \_\_\_\_.
 | * Use the following Exit Ticket to assess students’ ability to solve compare word problems involving lengths.
* Sally jumped 53 centimeters and stepped 28 centimeters. How much farther did Sally jump than step?
 |
| **12** | * I will collect, organize, and record survey data.
* I will create comparison statements from my data.
* I will create and complete a bar graph to match my survey data.
 | * There were \_\_\_ more votes for \_\_\_ than \_\_\_\_.
* There were \_\_\_ fewer votes for \_\_\_ than \_\_\_.
 | * Student work from collecting data and 2 comparison statements about the categories of data in the “After” section of the lesson can be used to assess students’ ability to collect, record, and analyze data.
 |
| **13** | * I will collect, organize, and record survey data.
* I will create comparison statements from my data.
* I will create and complete a bar graph to match my survey data.
 | * There were \_\_\_ more votes for \_\_\_ than \_\_\_\_.
* There were \_\_\_ fewer votes for \_\_\_ than \_\_\_.
 | * Student work from collecting data and 2 comparison statements about the categories of data in the “After” section of the lesson can be used to assess students’ ability to collect, record, and analyze data.
 |
| **14** | * I will collect, organize, and record survey data.
* I will create comparison statements from my data.
* I will create and complete a bar/picture graph to match my survey data.
* I will analyze my data through questioning.
 | * There were \_\_\_ more votes for \_\_\_ than \_\_\_\_.
* There were \_\_\_ fewer votes for \_\_\_ than \_\_\_.
* I discovered the difference between \_\_\_\_(vote) and \_\_\_(vote) was \_\_\_. The equation I used to solve this was \_\_\_.
 | * Choose one student work sample from collecting “What’s the Difference? What’s the Total?” Activity Sheet to assess students’ ability to collect, record, and analyze data.
 |
| **15** | * I will collect, organize, and record survey data.
* I will create and complete a line plot to match my survey data.
 | * \_\_\_\_ had \_\_\_\_ votes. I was able to determine this because \_\_\_\_.
 | * Student work from collecting data and 2 statements about their data in the “After” section of the lesson can be used to assess students’ ability to collect, record, and analyze data.
 |
| **16** | * I will collect, organize, and record survey data.
* I will create and complete a line plot to match my survey data.
 | * \_\_\_’s foot/hand was \_\_\_ in/cm/m/ft longer/shorter than \_\_\_\_’s. I showed this on my line plot by \_\_\_\_.
* My pinky/thumb was \_\_ in/cm longer/shorter than my pinky/thumb. I was able to illustrate that on my line plot by \_\_\_\_\_.
 | * Student work from collecting data and 2 statements about their data in the “After” section of the lesson can be used to assess students’ ability to collect, record, and analyze data.
* SAB pg. 10 (Unit 9) can be used to assess students’ ability to tell time.
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# Unit 5: *How Many Floors? How Many Rooms?*

*Estimated Duration: 13 days (January 25, 2017 – February 10, 2017)*

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| **Expectations for Students at the End of the Unit** |
| **Students will know:*** Even numbers can be arranged so that everyone has a partner. Even numbers can be separated into two equal groups (doubles problems). Even numbers are the numbers we say when we count by 2’s starting with 0.
* Odd numbers cannot be arranged so that everyone has a partner. Odd numbers cannot be separated into two equal groups. We don't say odd numbers when we count by 2’s.
* When writing an equation for an odd number the addends are the same with a left over or is written as a near double. 2 + 2 + 2 + 1 = 7 or 4 + 3 = 7.
* The two digits of a number represent the tens and ones. The first digit represents groups of 10 and the second number represents number of ones.
* Different combinations of tens and ones can be used to represent the same number.
* Skip-counting means that you add or take away the same amount over-and-over again.
* Skip-counting by 5 means adding 5 more each time.
* When you skip-count by 5’s, the ones digit changes from 5 to 0. (The ones digit is the furthest to the right.)
* Skip-counting by 10 means adding 10 or subtracting10 each time.
* When you skip-count by 10’s, the ones digit stays the same (The ones digit is the furthest to the right.)
* When you skip count by 2’s, the ones digit skips every other number. You only say even numbers when you skip count by 2’s.
* The amount of objects will be the same no matter how the quantity is counted.
 | **Students will be able to:*** Extend a repeated pattern.
* Complete a table that models a growing pattern.
* Make a connection between growing patterns and skip counting.
* Define even and odd numbers.
* Generalize patterns between different manipulatives
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| **Investigation 1****Estimated Duration: 6 Days** |
| **Session** | **Student I Will Statements** | **Supporting Accountable Talk** | **Assessment** |
| **1.1** | * I will determine the total number of rooms in a building given the number of rooms per floor and the number of floors.
* I will use various strategies to determine the total number of rooms
* I will explain my strategies and evaluate the efficiency of my strategies
 | * My cube building has \_\_\_ rooms and \_\_\_ floors.
* I found the number of rooms on floor \_\_\_ by \_\_\_\_\_\_.
* There are \_\_\_ number of rooms in a building with \_\_\_ number of floors.
 |  |
| **1.2** | * I will create tables to represent my thinking
* I will explain how my table represents my building representations
* I will determine the total number of rooms in a building given the number of rooms per floor and the number of floors.
 | * My cube building has \_\_\_ rooms and \_\_\_ floors.
* I found the number of rooms on floor \_\_\_ by \_\_\_\_\_\_.
* There are \_\_\_ number of rooms in a building with \_\_\_ number of floors. I know this because \_\_\_.
* The pattern I notice is \_\_\_\_. I recognized this because \_\_\_\_.
 | * Student Activity Book (SAB) p. 4 can be used to assess students’ ability to fill out a table based on a given floor plan.
 |
| **1.3** | * I will interpret the data in a table and explain how it matched my building
* I will make general statements about the number of cubes in my table by looking at patterns in the table
* I will determine the total number of rooms in a building given the number of rooms per floor and the number of floors.
* I will use various strategies to determine the total number of rooms
 | * My cube building has \_\_\_ rooms and \_\_\_ floors.
* I found the number of rooms on floor \_\_\_ by \_\_\_\_\_\_.
* There are \_\_\_ number of rooms in a building with \_\_\_ number of floors.
* The pattern I notice is \_\_\_\_.
 |  |
| **1.4** | * I will use data from a table to design a floor plan for a building
* I will use various strategies to determine the total number of rooms
 | * I notice \_\_\_\_ pattern.
* The mystery shape is \_\_\_. I figured this out because \_\_\_\_.
 | * SAB p. 17 can be used to assess students’ ability to create a table based on a given floor plan.
 |
| **1.5A** | * I will describe the relationship between pattern blocks
* I will reason about the relationship between blocks and use this to predict patterns
* I will represent patterns using tables
* I will explain how my tables represent my patterns
 | * I notice \_\_\_\_ pattern.
* The mystery shape is \_\_\_. I figured this out because \_\_\_\_.
 |  |
| **1.6** | * I will describe the relationship between pattern blocks
* I will reason about the relationship between blocks and use this to predict patterns
* I will represent patterns using tables
* I will explain how my tables represent my patterns
 | * I notice \_\_\_\_ pattern.
* The mystery shape is \_\_\_. I figured this out because \_\_\_\_.
 | * SAB pgs. 28 & 30 can be used to assess students’ ability to fill out a table.
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| **Investigation 2****Estimated Duration: 5 Days** |
| **Session** | **Student I Will Statements** | **Supporting Accountable Talk** | **Assessment** |
| **2.1** | * I will explore “AB”repeating patterns
* I will generate the “nth” term in a pattern using various strategies
* I will represent patterns using colors and pattern strips
* I will translate representations to a table
* I will explain how my table represents my cube train.
 | * My pattern is \_\_\_\_. The next 3 blocks would be \_\_, \_\_\_, and \_\_\_. I know because \_\_\_.
* The \_\_\_\_\_ (ex: 5th) block in my pattern would be \_\_\_\_ because \_\_\_\_.
 | * SAB pg. 39 can be used to assess students’ ability to fill out a table based on a given floor plan.
 |
| **2.2** | * I will explore “ABC”repeating patterns
* I will generate the “nth” term in a pattern using various strategies
* I will use various stages of counting to determine the total for each train
 | * My pattern is \_\_\_\_. The next 3 blocks would be \_\_, \_\_\_, and \_\_\_. I know because \_\_\_.
* The \_\_\_\_\_ (ex: 5th) block in my pattern would be \_\_\_\_ because \_\_\_\_.
 |  |
| **2.3** | * I will explore “AABBC”repeating patterns
* I will generate the “nth” term in a pattern using various strategies
* I will represent patterns using colors and pattern strips
* I will translate representations to a table
* I will explain how my table represents my cube train.
 | * I notice that \_\_ (color) cubes and \_\_\_ (color) cubes have \_\_\_ pattern.
* I know the \_\_\_ (ordinal) cube would be \_\_\_(color) because.
 | * SAB pg. 46 can be used to assess students’ ability to fill out a table based on a given floor plan.
 |
| **2.4** | * I will explore “AABBC”repeating patterns
* I will generate the “nth” term in a pattern using various strategies
* I will compare/contrast two patterns and describe my findings
 | * I notice that \_\_ (color) cubes and \_\_\_ (color) cubes have \_\_\_ pattern.
* I know the \_\_\_ (ordinal) cube would be \_\_\_(color) because.
 |  |
| **2.5** | * I will explore “AABBC”repeating patterns
* I will generate the “nth” term in a pattern using various strategies
* I will compare/contrast two patterns and describe my findings
 | * I notice that \_\_ (color) cubes and \_\_\_ (color) cubes have \_\_\_ pattern.
* I know the \_\_\_ (ordinal) cube would be \_\_\_(color) because.
 | * End of Unit assessment M14 and M15 formally assesses students’ ability to complete a table and identify growing patterns.
 |

# Unit 6: *How Many Tens? How Many Ones?*

*Estimated Duration: 23 days (February 13, 2017 – March 17, 2017)*

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| **Expectations for Students at the End of the Unit** |
| **Students will know:*** The same number can be represented in different ways such as word form, expanded form, base 10 form, drawings, etc.
* When we read and say 3 digit numbers, we don’t say “and.”
* When comparing 3 digit numbers examine/start/begin with the hundreds place, then the tens, and ones.
* When adding or subtracting 2 digit numbers I can use counting on, decomposing numbers, place value, commutative property, the relationship between addition and subtraction, or pictorial representation.
* There are 60 minutes in an hour. There are 60 dots/lines around a clock. Every fifth dot/line is longer so we skip count by 5’s on those dots/lines.
* By visualizing, retelling and modeling the action of a story problem, we can represent and record a mathematical situation using drawings, objects, and equations.
* We can add and subtract in our heads by using strategies, such as counting on, counting back, decomposing, using the relationship between addition and subtraction, plus one/ plus two, using doubles facts, and moving part of a number to make an easier problem
* By visualizing, retelling and modeling the action of a money story problem, I can represent and record a mathematical situation using drawings, objects, and equations.
 | **Students will be able to:*** Identify patterns in multiples of 2, 5, and 10.
* Write an equation that represents a problem.
* Develop fluency with sequencing numbers.
* Use various tools and strategies to solve a problem.
* Use the 100 chart and number line to model addition.
* Identify coins and their values.
* Use coins to model adding by 5s and 10s.
* Determine different coin combinations to show a given amount.
* Calculate the difference from a number to the next multiple.
* Use clocks to tell time to the half hour and quarter hour.
* Use standard notation to record expressions.
* Use a place value model to represent a number as 10s and 1s.
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| **Investigation 1****Estimated Duration: 4 Days** |
| **Session** | **Student I Will Statements** | **Supporting Accountable Talk** | **Assessment** |
| **1.1** | * I will use strategies to add 2-digit numbers.
* I will write an equation to represent a problem.
* I will describe the action of addition situations.
* I will correctly use symbols (standard notation) to represent a situation.
 | * This is an addition story problem because \_\_\_\_.
* An equation to match the story problem is \_\_\_\_\_.
* I solved \_\_ + \_\_\_ by \_\_\_.
 | * Student Activity Book (SAB) pg. 2 can be used to assess students’ ability to solve story problems involving 2-digit numbers.
 |
| **1.2** | * I will use a variety of strategies to solve story problems.
* I will write an equation to represent a problem.
* I will describe the action of subtraction and addition situations.
* I will correctly use symbols (standard notation) to represent a situation.
 | * This is an addition/subtraction story problem because \_\_\_\_.
* An equation to match the story problem is \_\_\_\_\_.
* I solved \_\_ +/- \_\_\_ by \_\_\_.
 | * SAB pgs. 4 & 5 can be used to assess students’ ability to solve story problems involving 2-digit numbers.
 |
| **1.3** | * I will use a variety of strategies to solve story problems.
* I will write an equation to represent a problem.
* I will describe the action of subtraction and addition situations.
* I will correctly use symbols (standard notation) to represent a situation.
 | * This is an addition/subtraction story problem because \_\_\_\_.
* An equation to match the story problem is \_\_\_\_\_.
* I solved \_\_ +/- \_\_\_ by \_\_\_.
 | * SAB pg. 9 can be used to assess students’ ability to solve story problems involving 2-digit numbers.
 |
| **1.4** | * I will use a variety of strategies to solve story problems.
* I will write an equation to represent a problem.
* I will describe the action of subtraction and addition situations.
* I will correctly use symbols (standard notation) to represent a situation.
 | * This is an addition/subtraction story problem because \_\_\_\_.
* An equation to match the story problem is \_\_\_\_\_.
* I solved \_\_ +/- \_\_\_ by \_\_\_.
 | * SAB pg. 13 can be used to assess students’ ability to solve story problems involving 2-digit numbers.
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| **Investigation 2****Estimated Duration: 6 Days** |
| **Session** | **Student I Will Statements** | **Supporting Accountable Talk** | **Assessment** |
| **2.1** | * I will fluently sequence numbers from 1-100.
* I will identify patterns in a sequence of numbers.
* I will use 100 charts to solve situations.
 | * I guess your number is \_\_\_\_ because \_\_\_\_\_.
* I chose to count by \_\_\_\_ because \_\_\_\_.
* I can eliminate \_\_\_\_ numbers from my guess because \_\_\_\_.
 | * SAB pg. 17 can be used to assess students’ ability to complete a 100 chart.
 |
| **2.2** | * I will write an equation to represent a problem.
* I will determine the difference between a number using multiples of 10.
 | * I need to take away \_\_\_ cubes because \_\_\_.
* I have \_\_\_ cubes altogether. I know because \_\_\_\_.
* I know the difference between \_ - \_ is \_\_ because \_\_\_.
 | * SAB pg. 21 can be used to assess students’ ability to identify patterns on a 100s chart.
 |
| **2.3** | * I will determine the difference between a number using multiples of 10.
* I will identify patterns in a sequence of numbers.
 | * I used \_\_\_ (number) to
* figure out where \_\_\_ (number) goes on the 100s chart because \_\_\_\_.
 | * SAB pg. 24 can be used to assess students’ ability to solve combinations up to 20.
 |
| **2.4** | * I will use place value to represent a number as tens and ones.
* I will determine the difference between a number using multiples of 10.
* I will write an equation to represent a problem and solve it using a variety of strategies.
 | * This is an addition/subtraction story problem because \_\_\_\_.
* An equation to match the story problem is \_\_\_\_\_.
* I solved \_\_ +/- \_\_\_ by \_\_\_.
 | * SAB pg. 30 can be used to assess students’ ability to solve story problems involving 2-digit numbers.
 |
| **2.5** | * I will use place value to represent a number as tens and ones.
* I will determine the difference between a number using multiples of 10.
* I will write an equation to represent a problem and solve it using a variety of strategies.
 | * This is an addition/subtraction story problem because \_\_\_\_.
* An equation to match the story problem is \_\_\_\_\_.
* I solved \_\_ +/- \_\_\_ by \_\_\_.
* I used \_\_\_ (number) to figure out where \_\_\_ (number) goes on the 100s chart because \_\_\_\_.
 | * SAB pg. 30 can be used to assess students’ ability to solve story problems involving 2-digit numbers.
 |
| **2.6** | * I will fluently sequence numbers from 1-100.
* I will identify patterns in a sequence of numbers.
* I will use 100 charts to solve situations.
 | * I guess your number is \_\_\_\_ because \_\_\_\_\_.
* I chose to count by \_\_\_\_ because \_\_\_\_.
* I can eliminate \_\_\_\_ numbers from my guess because \_\_\_\_.
 | * SAB pg. 17 can be used to assess students’ ability to complete a 100 chart.
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| **Investigation 3****Estimated Duration: 6 Days** |
| **Session** | **Student I Will Statements** | **Supporting Accountable Talk** | **Assessment** |
| **3.1** | * I will visualize and make jumps of multiples of 5’s on a 100s chart.
* I will add multiples of 5 & 10 up to 100.
 | * I made \_\_\_\_ moves on the 100s chart because \_\_\_.
* I figured out how far I am from 100 by \_\_\_\_.
* I added by making combinations of \_\_\_ because \_\_\_.
 | * SAB pg. 39 can be used to assess students’ ability to record and add a string of numbers with a sum of 100.
 |
| **3.2** | * I will use coin equivalencies.
* I will add coins up to $1.00.
* I will determine the difference between an amount and $1.00.
 | * The difference between \_\_\_ & $1.00 is \_\_\_. I know this because \_\_\_.
* I decided to use \_\_\_ coins because \_\_\_.
* The total of my coins is \_\_\_. I know this because \_\_\_.
 | * SAB pg. 42 can be used to assess students’ ability to add coins and determine the distance from a dollar.
 |
| **3.3** | * I will add and subtract multiples of 10 fluently.
* I will use coin equivalencies.
* I will add coins up to $1.00.
 | * The total of my coins is \_\_\_. I know this because \_\_\_.
* I thought about adding \_\_\_ (equation) by \_\_\_\_.
* I decided to write \_\_ (number) on the 100s chart because \_\_\_.
 | * SAB pg. 49 can be used to assess students’ ability to record and add a string of numbers with a sum of 100.
 |
| **3.4** | * I will subtract from 100.
* I will determine the difference between a number and 100 using multiples of 10.
* I will add coin amounts up to $1.00.
 | * The difference between 100 & \_\_ (number) is \_\_\_\_. I know this because \_\_\_.
* I figured out \_\_\_ cubes were left by \_\_\_\_.
 | * SAB pg. 51 can be used to assess students’ ability to record and add a string of numbers with a sum of 100.
 |
| **3.5** | * I will use coin equivalencies.
* I will subtract amounts from 100.
* I will add multiples of 10s and 5s to 100.
 | * I used \_\_\_ strategy to spend $1.00.
* I traded \_\_\_ coins because \_\_\_\_.
 | * SAB pg. 53 can be used to assess students’ ability to make change from a $1.00.
 |
| **3.6** | * I will use coin equivalencies.
* I will subtract amounts from 100.
* I will add multiples of 10s and 5s to 100.
 |  | * SAB pg. 57 can be used to assess students’ ability to decompose a given two digit number into tens or ones.
	+ Provide students with practice using similar type story problems before giving as an assessment.
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| **Investigation 4****Estimated Duration: 3 Days** |
| **Session** | **Student I Will Statements** | **Supporting Accountable Talk** | **Assessment** |
| **4.1 & 4.2****Combine** | * I will skip count by 5’s and 10’s
* I will identify patterns in multiples of 5’s.
* I will use coins to model adding by 5’s and 10’s.
 | * I used \_\_\_ (strategies/tools) to solve my problem.
* I noticed \_\_\_ pattern when counting by 5’s/10’s.
 | * SAB pgs. 66-68 can be used to assess students’ ability to skip count by 2s, 5s, & 10s
 |
| **4.3** | * I will skip count by 5’s and 10’s
* I will identify patterns in multiples of 5’s.
 |  | * Resource Master pg. C39 formally assess students’ ability to sequence numbers on counting strips.
 |
| **4.4** | * I will determine the difference between a given number and 100.
* I will determine the difference between an amount and $1.00.
 |  | * RM pgs. 40-42 formally assesses students’ ability to subtract within 100.
 |

# CMS Fractions Unit

*Estimated Duration: 18 days (March 20, 2017 – April 21, 2017)*

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| **Expectations for Students at the End of the Unit** |
| **Students will know:*** A whole can be split up into two, three, or four equal shares.
* Equal shares can be called halves (two pieces), thirds (three pieces), and fourths/quarters (four pieces)
* When describing equal shares the term half of, third of, or fourth (quarter) of is used to describe the region.
* When describing the whole shape the terms two halves, three thirds, and four fourths can be used to describe the whole.
* A shape can be divided into equal parts in different ways.
 | **Students will be able to:*** Recognize that equal shares of identical wholes do not have to be same shape.
* Identify and describe halves, thirds, and fourths of a shape
* Partition rectangles and circles into halves, thirds, and fourths
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| **Investigation 1****Estimated Duration: 11 Days** |
| **Lesson** | **Student I Will Statements** | **Supporting Accountable Talk** | **Assessment** |
| **1 & 2****Combine** | * I will partition a circle and a rectangle into equal halves and fourths.
* I will prove that I have partitioned a shape into halves and fourths.
 | * I partitioned my rectangle into two \_\_\_\_\_ because \_\_\_\_\_.
* I know my \_\_\_ (shape) is partitioned into equal shares because \_\_\_\_\_.
* A half is \_\_\_\_.
 | * Student Activity Book (SAB) p. 26B from Investigations Unit 7 can be used to assess students’ ability to partition circles into halves and identify halves.
 |
| **2** | * I will identify thirds of a given region.
* I will notate the term one third using words.
 | * \_\_\_ equal part(s) out of \_\_\_ parts of my flag are \_\_\_ (color).
* one third/forth/half of my flag is \_\_\_ (color).
 | * Fraction flags activity can be used to assess students’ ability to create unit fractions.
 |
| **3** | * I will identify thirds/halves/fourths of a given region.
* I will notate using the terms halves, thirds, and fourths using words.
 | * \_\_\_ equal part(s) out of \_\_\_ parts of my flag are \_\_\_ (color).
* one third/forth/half of my flag is \_\_\_ (color).
* I partitioned my circle into \_\_\_ equal parts. I know because \_\_\_.
 | * Fraction flags can be used to assess students’ ability to create and describe fractions (two thirds, three fourths, etc).
 |
| **4** | * I will identify different ways to partitioned a square into fourths.
* I will recognize the equivalence of different shaped fourths of the same object.
 | * I can partitioned my square into fourths by \_\_\_\_\_\_ (what I did.)
* A different way I can partition my square into fourths is \_\_\_\_\_.
 |  |
| **5** | * I will identify equal parts in the same shape.
* I will partition a half in half to create fourths.
 | * I can prove that the rectangle is partitioned into fourths because \_\_\_\_.
 | * Partitioning the Grass activity sheet and the Problem Solving Station can be used to assess students’ ability to create unit fractions.
 |
| **6** | * I will identify equal parts in the same shape.
* I will partition a half in half to create fourths.
 | * Each piece of my rectangle is made up of \_\_\_ squares (on the graph paper). This helps me know that they’re equal because \_\_\_\_.
* I divided my rectangle into \_\_\_ (number) \_\_\_\_ (shapes). I know they’re equal portions because \_\_\_.
 | * SAB pg. 32 can be used to assess students’ ability to show different ways to show fourths and thirds of a rectangle.
 |
| **7** | * I will identify equal parts in the same shape.
* I will partition a half in half to create fourths.
 | * I am partitioning my backyard by \_\_\_\_.
* I know that each region is one fourth because \_\_\_\_.
 |  |
| **8** | * I will identify fair shares of fourths.
 | * I know that \_\_\_\_ shape is fair because \_\_\_\_\_.
* I can prove that \_\_\_ shape is NOT fair by \_\_\_\_\_.
* I used \_\_\_\_\_ tiles to cover my regions. This proves they are equal/not equal because \_\_\_\_.
 |  |
| **9** | * I will compare fractional wholes.
 | * \_\_\_\_ (fraction) is = to \_\_\_\_ (fraction). I know this because \_\_\_\_\_.
 |  |
| **10** | * I will identify fair shares of halves, thirds, and fourths.
* I will partition rectangles and circles into halves, thirds, and fourths.
* I will reason with word problems that utilize halves, thirds, and fourths when referring to wholes.
 |  | * Student work samples from Workshop can be used to assess students’ ability to draw fractions.
 |
| **11 & 12****Combine** | * I will partition a circle and a rectangle into equal halves and fourths.
* I will prove that I have partitioned a shape into halves and fourths.
 | * I partitioned my rectangle into two \_\_\_\_\_ because \_\_\_\_\_.
* I know my \_\_\_ (shape) is partitioned into equal shares because \_\_\_\_\_.
* A half is \_\_\_\_.
 | * Student Activity Book (SAB) p. 26B from Investigations Unit 7 can be used to assess students’ ability to partition circles into halves and identify halves.
 |

# Unit 8: *Patterns, Teams, and Paper Clips*

*Estimated Duration: 10 days (May 15, 2017 – May 26, 2017)*

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| **Expectations for Students at the End of the Unit** |
| **Students will know:*** When writing an equation for an odd number the addends are the same with a left over or is written as a near double. 2 + 2 + 2 + 1 = 7 or 4 + 3 = 7.
* The three digits of a number represent the hundreds, tens, and ones. The first digit represents the hundreds. The second digit represents groups of 10, the third digit represents number of ones. The position of a digit determines its value.
* The same number can be represented in different ways such as number names, expanded form, base 10 form, drawings, etc.
* When comparing 3 digit numbers examine/start/begin with the hundreds place, then the tens, and ones.
* Addition facts can be used to solve subtraction problems.
* Subtraction is the opposite of addition. (inverse)
* When adding and subtracting three digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, and ones and ones.
* Addition can be used to solve subtraction problems.
* Sometimes it is necessary to compose or decompose tens or hundreds.
* When mentally adding or subtracting in multiples of 10 and 100 only the hundreds or tens place changes
* If you add or subtract a number in parts it’s the same as adding or subtracting it as a whole. When we break numbers by place value and add or subtract in parts, we get the same sum or difference.
* When you’re adding, you can change the order and it doesn’t change the answer.
 | **Students will be able to:*** Use a variety of strategies to solve subtraction equations a variety of strategies to solve addition story problems.
* Subtract amounts from 100
* Add and subtract 2-digit numbers
* Create a story problem to match an addition equation
* Make conjectures and generalizations about even and odd numbers
* Use standard notation to record expressions
* Name, notate, and tell time to the hour, half hour, and quarter hour.
* Solve problems about an unknown change
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| **Investigation 1****Estimated Duration: 4 Days** |
| **Session** | **Student I Will Statements** | **Supporting Accountable Talk** | **Assessment** |
| **1.1** | * I will determine if a number is even/odd using partners and teams/equal groups.
* I will identify what happens when partners and teams are combined.
 | * I know my number is even/odd because \_\_\_\_\_.
* I used \_\_\_ strategy to solve my problem by \_\_\_\_.
* I know that if \_\_\_ is left over, \_\_\_ (number) will always be even/odd because \_\_\_\_.
 | * Student Activity Book (SAB) pg. 3 can be used to assess students’ ability to combine values and make pairs.
 |
| **1.2** | * I will determine if a number is even/odd using partners and teams/equal groups.
* I will identify what happens when partners and teams are combined.
 | * I know my number is even/odd because \_\_\_\_\_.
* I used \_\_\_ strategy to solve my problem by \_\_\_\_.
* I know that if \_\_\_ is left over, \_\_\_ (number) will always be even/odd because \_\_\_\_.
 | * SAB pg. 5 can be used to assess students’ ability to combine values and make pairs.
 |
| **1.3** | * I will make generalizations about adding even/odd numbers with justification.
 | * When you add 2 even/odd numbers you will always get an even/odd number because \_\_\_\_.
* When you add an even and an odd number you will always get an even/odd number because \_\_\_.
 | * SAB pgs. 13-14 can be used to assess students’ ability to identify if sums of numbers are odd or even.
 |
| **1.4** | * I will determine if a number is even/odd using partners and teams/equal groups.
* I will identify what happens when partners and teams are combined.
* I will make generalizations about adding even/odd numbers with justification.
 | * When you add 2 even/odd numbers you will always get an even/odd number because \_\_\_\_.
* When you add an even and an odd number you will always get an even/odd number because \_\_\_.
 | * SAB pg.15 can be used to assess students’ ability to identify if sums of numbers are odd or even.
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| **Investigation 2****Estimated Duration: 2 Days** |
| **Session** | **Student I Will Statements** | **Supporting Accountable Talk** | **Assessment** |
| **2.1** | * I will use a variety of strategies to show how addition combinations are related.
* I will develop fluency with plus 9 and other combinations.
 | * I decided to add 9/10 because \_\_\_\_.
* \_\_\_ (equation) and \_\_\_ (equation) are related because \_\_\_\_.
 |  |
| **2.2** | * I will use a variety of strategies to show how addition combinations are related.
* I will develop fluency with plus 9 and other combinations.
 | * I decided to add 9/10 because \_\_\_\_.
* \_\_\_ (equation) and \_\_\_ (equation) are related because \_\_\_\_.
 | * SAB pg. 22 can be used to assess students’ ability to fluently add the remaining combinations.
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| **Investigation 3****Estimated Duration: 5 Days** |
| **Session** | **Student I Will Statements** | **Supporting Accountable Talk** | **Assessment** |
| **3.1** | * I will count a set of objects using equal groups.
* I will subtract from 100.
* I will develop fluency with plus 9 and other combinations.
 | * I solved this problem using \_\_\_ (strategy/tool). It worked because \_\_\_\_\_.
* I know this is a subtraction problem because \_\_\_\_.
* The equation to match my story problem is \_\_\_\_.
 | * SAB pg. 25 can be used to assess students’ ability to using strategies to figure out the missing part of a given number.
 |
| **3.2** | * I will visualize, retell, and model the action of subtraction situations.
* I will represent the action of a subtraction problem using standard notation.
* I will use a variety of strategies to solve subtraction story problems.
 | * I know this is a subtraction problem because \_\_\_\_.
* The equation to match my story problem is \_\_\_\_.
* I solved this problem using \_\_\_ (strategy/tool). It worked because \_\_\_\_\_.
 | * SAB pg. 29 can be used to assess students’ ability to using strategies to figure out the missing part of a given number.
 |
| **3.3** | * I will solve subtraction problems by adding on or subtracting back to find the difference.
* I will use a variety of strategies to solve equations.
* I will subtract from 100.
 | * I know this is a subtraction problem because \_\_\_\_.
* The equation to match my story problem is \_\_\_\_.
* I solved this problem using \_\_\_ (strategy/tool). It worked because \_\_\_\_\_.
 | * SAB pg. 32 can be used to assess students’ ability to separate a 3-digit number into tens and leftovers.
 |
| **3.4** | * I will compare subtraction equations through compensation.
* I will use a variety of strategies to solve equations.
* I will develop fluency with plus 9 and other combinations.
 | * I was able to solve this subtraction equation because I know that \_\_\_ (number) and \_\_\_ (number) are different by \_\_\_\_\_.
* I know this is a subtraction problem because \_\_\_\_.
* The equation to match my story problem is \_\_\_\_.
* I solved this problem using \_\_\_ (strategy/tool). It worked because \_\_\_\_\_.
 | * SAB pg. 37 can be used to assess students’ ability to solve compare problem types.
 |
| **3.5** | * I will use a variety of strategies to solve equations
 | * I solved this problem using \_\_\_ (strategy/tool). It worked because \_\_\_\_\_.
* I know this is a subtraction problem because \_\_\_\_.
* The equation to match my story problem is \_\_\_\_.
 | * Resource Master M24 formally assesses students’ ability to subtract within 100 using multiple strategies.
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| **Investigation 4****Estimated Duration: 6 Days** |
| **Session** | **Student I Will Statements** | **Supporting Accountable Talk** | **Assessment** |
| **4.1** | * I will describe the action of addition and subtraction situations.
* I will correctly use symbols (standard notation) to represent a situation.
* I will solve addition story problems.
* I will record strategies for solving problems.
 | * This is an addition story problem because \_\_\_\_.
* An equation to match the story problem is \_\_\_\_.
* I solved \_\_+\_\_ by \_\_\_\_\_.
 | * SAB pg. 38 can be used to assess students’ ability to select/use a strategy to solve an addition story problem.
 |
| **4.2** | * I will count, write, and read numbers to 100.
 | * There are \_\_\_ pockets in class today.
* One way to count the pockets is by \_\_\_(s).
* My matching equation is \_\_\_\_.
 | * SAB pg. 39 can be used to assess students’ ability to create expressions that equal a given number.
 |
| **4.3** | * I will describe the action of addition and subtraction situations.
* I will correctly use symbols (standard notation) to represent a situation.
* I will solve subtraction story problems.
* I will record strategies for solving problems.
 | * This is a subtraction story problem because \_\_\_\_.
* An equation to match the story problem is \_\_\_\_.
* I solved \_\_-\_\_ by \_\_\_\_\_.
 |  |
| **4.4** | * I will describe the action of addition and subtraction situations.
* I will correctly use symbols (standard notation) to represent a situation.
* I will solve addition and subtraction story problems
* I will record strategies for solving problems.
 | * This is a subtraction/addition story problem because \_\_\_\_.
* An equation to match the story problem is \_\_\_\_.
* I solved \_\_-/+\_\_ by \_\_\_\_\_.
 | * SAB pg. 46 can be used to assess students’ ability to select/use a strategy to solve subtraction story problems.
 |
| **CMS Lesson 1** | * I will describe the action of addition and subtraction situations.
* I will correctly use symbols (standard notation) to represent a situation.
* I will solve addition and subtraction story problems
* I will record strategies for solving problems.
 | * This is a subtraction/addition story problem because \_\_\_\_.
* An equation to match the story problem is \_\_\_\_.
* I solved \_\_-/+\_\_ by \_\_\_\_\_.
 | * SAB pg. 50 can be used to assess students’ ability to select/use a strategy to solve an addition story problem.
 |
| **CMS Lesson 2** | * I will describe the action of addition situations.
* I will double an amount and write an equation to match it.
 | * The doubling equation to match the story problem is \_\_\_\_.
 | * SAB pg. 38 can be used to assess students’ ability to select/use a strategy to solve an addition story problem.
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| **Investigation 5 (Investigations and the Common Core Standards)****Estimated Duration: 5 Days** |
| **Session** | **Student I Will Statements** | **Supporting Accountable Talk** | **Assessment** |
| **5A.1** | * I will represent a 3-digit number using place value models.
* I will add 2 3-digit numbers by combining hundreds, tens, and ones.
 | * I solved my equation by \_\_\_\_\_\_.
* I know that the number \_\_\_ is equivalent to \_\_ hundreds, \_\_\_ tens, and \_\_\_ ones because \_\_\_.
* \_\_\_ (sticker notation) represents \_\_\_\_ (3-digit number). I know this because \_\_\_\_\_.
 |  |
| **5A.2** | * I will add 2 3-digit numbers by combining hundreds, tens, and ones.
* I will recognize the need to combine ones into a ten when adding 2 3-digit numbers.
 | * I can represent \_\_\_\_ (number) using \_\_\_\_(sticker notation).
* I can use \_\_\_\_ strategy for combining \_\_\_ (numbers).
* I know that I need to make a new ten because \_\_\_\_\_.
 | * SAB pgs. 71-72 can be used to assess students’ ability to skip count 3-digit numbers.
 |
| **5A.3** | * I will represent a 3-digit number using place value models.
* I will subtract 2 3-digit numbers by keeping one number whole.
* I will retell a story problem in my own words.
 | * I can represent \_\_\_\_
	+ (number) using \_\_\_\_(sticker notation).
* \_\_\_\_ (equation)
	+ matches this story problem because \_\_\_.
* I was able to solve
	+ my equation because \_\_\_.
* I broke apart \_\_\_
* (number) from the total because \_\_\_\_.
 | * SAB pg. 77 can be used to assess students’ ability to find 100 more or less of a 3-digit number.
 |
| **5A.4** | * I will represent a 3-digit number using place value models.
* I will subtract 2 3-digit numbers by keeping one number whole.
* I will retell a story problem in my own words.
* I will subtract numbers where I must regroup the number of tens/hundreds in the total amount.
 | * I can represent \_\_\_\_ (number) using \_\_\_\_(sticker notation).
* \_\_\_\_ (equation) matches this story problem because \_\_\_.
* I was able to solve my equation because \_\_\_.
* I broke apart \_\_\_ (number) from the total because \_\_\_\_.
* I knew that I needed to regroup my tens/hundreds because \_\_\_.
 |  |
| **5A.5** | * I will use a variety of strategies to solve addition story problems.
* I will use standard notation to solve a variety of addition problems.
* I will create a story problem to match an addition equation.
 | * I solved my equation by \_\_\_\_\_\_.
* I know that the number \_\_\_ is equivalent to \_\_ hundreds, \_\_\_ tens, and \_\_\_ ones because \_\_\_.
* \_\_\_ (sticker notation) represents \_\_\_\_ (3-digit number). I know this because \_\_\_\_\_.
 | * RM pg. M41-M45 formally assesses students’ ability to solve addition word problems using a variety of strategies as well as making and justifying generalizations about odd and even numbers.
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