2016 – 2017

Grade 2

Mathematics Curriculum

Documents



CMS Elementary Math Specialists:

Susan Copeland – [susan.copeland@cms.k12.nc.us](mailto:susan.copeland@cms.k12.nc.us)

Gabr’l Stackhouse – [gabrlc.stackhouse@cms.k12.nc.us](mailto: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

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| **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

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| **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:**

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

# Grade 2 Scope and Sequence

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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.1  2.OA.2  2.OA.4  2.NBT.5  2.NBT.6  2.MD.7  2.MD.8 | | 2.G.1  2.G.2  2.OA.2  2.MD.7 | 2.OA.1  2.OA.2  2.OA.3  2.NBT.1  2.NBT.2  2.NBT.5  2.NBT.6  2.NBT.9  2.MD.8 | | 2.MD.1  2.MD.2  2.MD.3  2.MD.4  2.MD.5  2.MD.6  2.MD.7  2.MD.8  2.MD.9  2.MD.10 | 2.OA.2  2.OA.3  2.OA.4  2.NBT.1  2.NBT.2  2.NBT.3  2.NBT.5  2.MD.7  2.MD.8  2.G.1  2.G.2 | 2.OA.1  2.OA.2  2.NBT.1  2.NBT.2  2.NBT.3  2.NBT.4  2.NBT.5  2.MD.7  2.MD.8  2.G.1 | 2.G.3 | | 2.OA.1  2.OA.2  2.OA.3  2.NBT.1  2.NBT.3  2.NBT.4  2.NBT.5  2.NBT.6  2.NBT.7  2.NBT.8  2.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+Tasks)   + 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. |

# 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. |