

Rock View Elementary School Math Workshop for Parents

Grade k – 5

Math MP₄

4.9.14

It's not that I'm so smart, it's just
that I stay with problems longer.

- Albert Einstein

Outcomes

By the end of this meeting participants will have:

Investigated and discussed the Strands of Mathematical Proficiency (UCARE) and how they fit into Math instruction.

Explored Grades k – 5 Curriculum 2.0 Math Measurement Topics and corresponding content areas for Marking Period 4 to determine the key concepts students will learn in Grades k – 5.

Referenced and defined key vocabulary words and concepts in Grades k - 5 within the forth marking period.

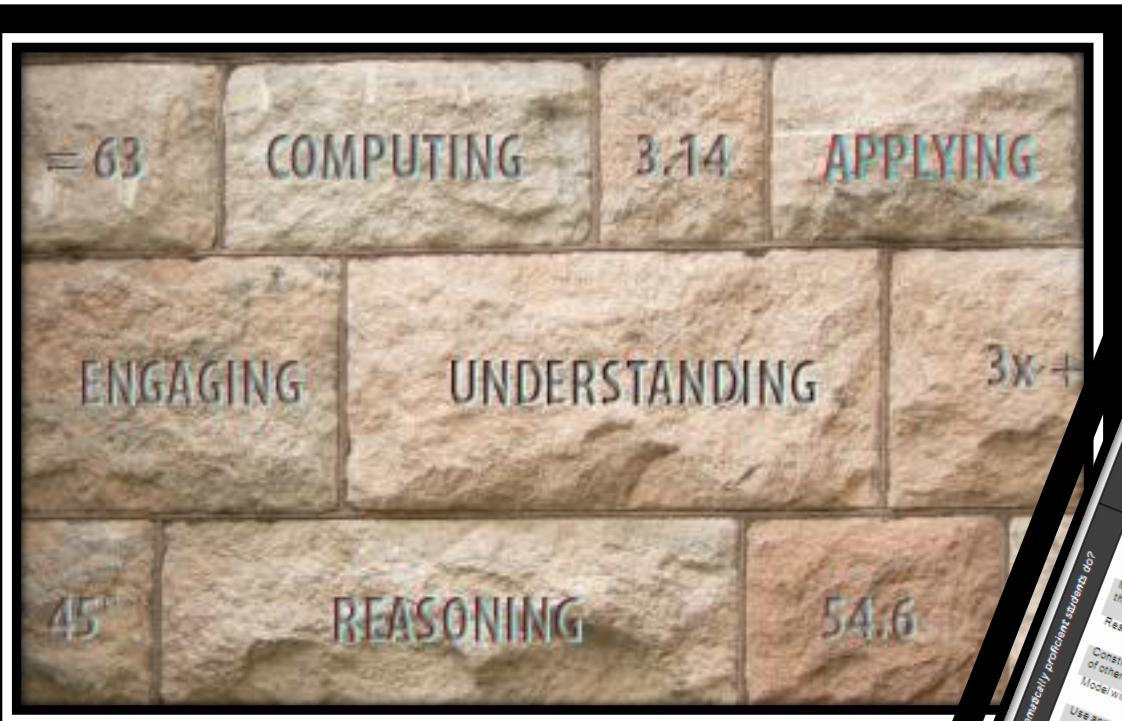
Engaged in Grade – level activities that are aligned to MP4 Math Curriculum and can be done at home to help build a greater understanding of concepts.

Heard updates on the Math Program in MCPS for the 2014-2015 School Year.

Agenda

- **Strands and Standards**
- **Measurement Topics & Key Concepts**
- **Vocabulary**
- **At-home Activities**

Building a Stronger Foundation



Common Core State Standards Mathematical Proficiency and Mathematical Practices

The goal of the Montgomery County Public Schools Pre-K–12 mathematics program is for all students to achieve mathematical proficiency by developing both conceptual understanding and procedural fluency. The end result is the ability to think and reason mathematically and use mathematics to solve problems in authentic contexts.

—Emphasis: Increase Curriculum Rigor—12 (Montgomery County Public Schools, 2012)

STRANDS OF MATHEMATICAL PROFICIENCY

- Computing**: Carrying out mathematical procedures, such as adding, subtracting, multiplying, and dividing numbers, mentally, accurately, efficiently, and appropriately.
- Understanding**: Comprehending mathematical concepts, operations, and relations—knowing what mathematical symbols, diagrams, and procedures mean.
- Applying**: Being able to formulate problems mathematically and to devise strategies for solving them using concepts and procedures appropriately.
- Reasoning**: Using logic to explain and justify a solution to a problem or to extend from something known to something not yet known.
- Engaging**: Seeing mathematics as sensible, useful, and worthwhile—willing to work hard—and being willing to do the work.

COMMON CORE STATE STANDARDS MATHEMATICAL PRACTICES

What is mathematical proficiency?

Practices
Mathematically proficient students:
 Make sense of problems and persevere in solving them.
 Reason abstractly and quantitatively.
 Construct viable arguments and critique the reasoning of others.
 Model with mathematics.
 Use appropriate tools strategically.
 Attend to precision.
 Look for and make use of structure.
 Look for and express regularity in repeated reasoning.

Examples
Mathematically proficient students:
 Plan a solution pathway rather than simply jumping into a solution attempt.
 Attend to the meaning of quantities, not just how to compute them.
 Justify their conclusions, communicate them to others, and respond to the arguments of others.
 Apply the mathematics they know to solve problems arising in everyday life.
 Consider the available tools when solving a mathematical problem and make sound decisions about when each of these tools might be helpful.
 Calculate accurately and efficiently; give carefully formulated explanations.
 Notice, for example, that 3 and 7 more is the same amount as 7 and 3 more or sort a collection of shapes according to how many sides the shapes have.
 Look both for general methods and for shortcuts; evaluate the reasonableness of their intermediate results.

What do mathematically proficient students do?

Grade Level Summaries

Kindergarten Marking Period 4 Math Summary

El Resumen de Matemáticas en Cuarto Período de Calificaciones Para Kindergarten

MEASUREMENT TOPICS

Measurement Topics are categories of content and processes in a subject. What a child needs to know and be able to do changes (gets more complex) at each grade level.

- Geometry (MP3 & 4)
- Measurement and Data (MP3 & 4)
- Counting and Cardinality (MP4)
- Operations and Algebraic Thinking (MP4)
- Number and Operations in Base Ten (MP4)

TÓPICOS DE MEDICIÓN

Tópicos de medición son categorías relacionadas al contenido y procesos dentro de una materia. Lo que el estudiante necesita saber y debe poder hacer cambia (y es más complejo) en cada nivel de grado.

- Geometría (MP 3 & 4)
- Medición y Datos (MP 3 & 4)
- Contar y Cardinalidad (MP4)
- Operaciones y Razonamiento Algebraico (MP 4)
- Números y Operaciones en el Sistema Decimal (MP4)

Mathematics

- Part-whole concept (through 10)
- Quantities (joining and separating through 10)
- Coins and values (penny, nickel, dime)
- Money amounts (through 19 cents)
- Counting forward from a number other than 1
- Grouping quantities (11-19) into 10 ones and some additional ones

Matemáticas

- Concepto de parte-entero (hasta 10)
- Cantidades (juntar y separar hasta 10)
- Monedas y sus valores (un centavo (penny), cinco centavos (nickel), diez centavos (dime))
- Cantidades de dinero (hasta 19 centavos)
- Contando hacia arriba desde un número menor que 1
- Agrupando cantidades en grupos de 10 y algunas adicionales

Grade 2 Marking Period 4 Math Summary

El Resumen de Matemáticas en Cuarto Período de Calificaciones Para el Grado 2

MEASUREMENT TOPICS

Measurement Topics are categories of content and processes in a subject. What a child needs to know and be able to do changes (gets more complex) at each grade level.

- Geometry (MP3 & 4)
- Operations and Algebraic Thinking (MP3 & 4)
- Numbers and Operations in Base Ten (MP4)

TÓPICOS DE MEDICIÓN

Categorías relacionadas al contenido y procesos dentro de una materia. Lo que el estudiante necesita saber y debe poder hacer cambia (y es más complejo) en cada nivel de grado.

- Geometría (MP 3 & 4)
- Operaciones y Razonamiento Algebraico (MP 3 & 4)
- Números y Operaciones en el Sistema Decimal (MP4)

Mathematics

- Addition and subtraction within 1000 (concrete models, drawings, place value strategies, written methods)
- Addition and subtraction within 20 (sums of two 1-digit numbers from memory)
- Attributes of shapes: recognize, describe, draw (triangles, quadrilaterals, pentagons, hexagons, cubes)

Matemáticas

- Suma y resta hasta 1,000 (modelos concretos, dibujos, estrategias para valor posicional, métodos escritos)
- Suma y resta hasta 20 (sumas con dos números de 1 dígito de memoria)

Grade 1 Marking Period 4 Math Summary

El Resumen de Matemáticas en Cuarto Período de Calificaciones Para el Grado 1

MEASUREMENT TOPICS

Measurement Topics are categories of content and processes in a subject. What a child needs to know and be able to do changes (gets more complex) at each grade level.

- Numbers and Operations in Base Ten (MP4)
- Geometry (MP4)

TÓPICOS DE MEDICIÓN

Tópicos de medición son categorías relacionadas al contenido y procesos dentro de una materia. Lo que el estudiante necesita saber y debe poder hacer cambia (y es más complejo) en cada nivel de grado.

- Números y Operaciones en el Sistema Decimal (MP4)
- Geometría (MP4)

Mathematics

- Addition: 1-digit to 2-digit numbers (written method)
- Addition: 2-digit numbers to 2-digit multiples of 10 (written method)
- Subtraction: 2-digit multiples of 10 (written method)
- 2- and 3-dimensional shapes: attributes, composing to create a new shape, partitioning 2-dimensional shapes into equal parts
- Time on analog and digital clocks: hours, half-hours

Matemáticas

- Suma: Números de 1 dígito y de 2 dígitos a múltiplos de 10 (escrito)
- Suma: Números de 2 dígitos a múltiplos de 10 (escrito)
- Resta: múltiplos de 10 de 2 dígitos (escrito)
- Formas de 2 y 3 dimensiones: atributos, componer para crear una nueva forma, 2-dimensional o partes 2-dimensional en relajo análogo
- La hora en reloj analógico y digital: horas

Grade 3 Marking Period 4 Math Summary

El Resumen de Matemáticas en Cuarto Período de Calificaciones Para el Grado 3

MEASUREMENT TOPICS

Measurement Topics are categories of content and processes in a subject. What a child needs to know and be able to do changes (gets more complex) at each grade level.

- Measurement and Data (MP3 & 4)
- Operations and Algebraic Thinking (MP3 & 4)
- Geometry (MP4)

TÓPICOS DE MEDICIÓN

Categorías relacionadas al contenido y procesos dentro de una materia. Lo que el estudiante necesita saber y debe poder hacer cambia (y es más complejo) en cada nivel de grado.

- Medición y Datos (MP 3 & 4)
- Operaciones y Razonamiento Algebraico (MP 3 & 4)
- Geometría (MP4)

Mathematics

- 1- and 2-step word problems (all operations)
- Multiplication and division fluency (within 100: facts with 0 to 10)
- Telling and writing time to nearest minute
- Word problems: addition and subtraction of time intervals in minutes using number line drawings
- Measurement and estimation: liquid volumes (liters), mass (grams)
- 1-step word problems (all operations): mass or volume in some units
- Subcategories of quadrilaterals: attributes shared/not shared
- Perimeters of polygons
- Rectangles: same perimeter and different areas; same area and different perimeters
- Scaled picture graphs and scaled bar graphs

Matemáticas

- Problemas escritos de 1 y 2 pasos (todas las operaciones)
- Fluidez para multiplicar y dividir (dentro de 100) factores con 0 hasta 10
- Problemas escritos: suma y resta de intervalos de tiempo en minutos usando líneas de números
- Medición y estimación: volúmenes líquidos (litros), masa (gramos)
- Problemas escritos de 1 paso (todas las operaciones): masa o volumen en las mismas unidades
- Subcategorías de cuadriláteros: atributos compartidos/compartidos diferentes
- Perímetros de los polígonos
- Rectángulos: igual perímetro y área diferentes; igual área y perímetros diferentes
- Gráficos dibujados en escala y gráficos de barra en escala

KINDERGARTEN MEASUREMENT TOPICS

Geometry (MP3&4)

Counting and Cardinality

Number and operations in Base Ten

Measurement and Data (MP3&4)

Operations and Algebraic Thinking

Kindergarten Marking Period 4 Math Summary

El Resumen de Matemáticas en Cuarto Período de Calificaciones Para Kinderzarten

MEASUREMENT TOPICS

Measurement Topics are categories of content and processes in a subject. If a child needs to know and be able to do things (go to more complex) at each grade level.

- Geometry (MP 3 & 4)
- Measurement and Data (MP 3 & 4)
- Counting and Cardinality (MP 1)
- Operations and Algebraic Thinking (MP 1)
- Number and Operations in Base Ten (MP 1)

TÓPICOS DE MEDICIÓN

TÓPICOS DE MEDICIÓN son categorías de contenido y procesos dentro de una materia. Lo que el estudiante necesita saber y saber poder hacer con ella (y en más complejos) en cada nivel de grado.

- Geometría (MP 3 & 4)
- Medición y Datos (MP 3 & 4)
- Conteo y Cardinalidad (MP 1)
- Operaciones y Razonamiento Algebraico (MP 1)
- Números y Operaciones en el Sistema Decimal (MP 1)

Mathematics

- Part-whole concept (through 10)
- Quantities (joining and separating through 10)
- Coins and values (penny, nickel, dime)
- Money amounts (through 19 cents)
- Counting forward from a number other than 1
- Grouping quantities (11–19) into 10 ones and some additional ones

Matemáticas

- Concepto de parte-todo (hasta 10)
- Cantidad (unir y separar hasta 10)
- Monedas y sus valores (un centavo (penny), cinco centavos (nickel), diez centavos (dime))
- Cantidad de dinero (hasta 19 centavos)
- Contando hacia arriba desde un número que no es el 1
- Agrupando cantidades (11–19) en 10 de 1 y algunas adicionales

Adapted by East View Elementary School for 2013-14 "Math Working for Parents"

Mathematics

- Part-whole concept (through 10)
- Quantities (joining and separating through 10)
- Coins and values (penny, nickel, dime)
- Money amounts (through 19 cents)
- Counting: forward from a number other than 1
- Grouping quantities (11–19) into 10 ones and some additional ones

GRADE 1 MEASUREMENT TOPICS

Number and Operations in Base Ten Geometry

Mathematics

- Addition: 1-digit to 2-digit numbers (written method)
- Addition: 2-digit numbers to 2-digit multiples of 10 (written method)
- Subtraction: 2-digit multiples of 10 (written method)
- 2- and 3-dimensional shapes: attributes, composing to create a new shape, partitioning 2-dimensional shapes into equal parts
- Time on analog and digital clocks: hours, half-hours

Grade 1 Marking Period 4 Math Summary

El Resumen de Matemáticas en Cuarto Período de Calificaciones Para el Grado 1

MEASUREMENT TOPICS

Measurement Topics are categories of content and processes in a subject. What a child needs to know and be able to do changes (gets more complex) at each grade level.

- Numbers and Operations in Base Ten (MP4)
- Geometry (MP4)

TÓPICOS DE MEDICIÓN

TÓPICOS DE MEDICIÓN son categorías relacionadas al contenido y procesos dentro de una materia. Lo que el estudiante necesita saber y debe poder hacer cambia (y es más complejo) en cada nivel de grado.

- Números y Operaciones en el Sistema Decimal (MP4)
- Geometría (MP4)

Mathematics

- Addition: 1-digit to 2-digit numbers (written method)
- Addition: 2-digit numbers to 2-digit multiples of 10 (written method)
- Subtraction: 2-digit multiples of 10 (written method)
- 2- and 3-dimensional shapes: attributes, composing to create a new shape, partitioning 2-dimensional shapes into equal parts
- Time on analog and digital clocks: hours, half-hours

Mathematics

- Suma: Números de 1 dígito y de 2 dígitos (método escrito)
- Suma: Números de 2 dígitos a múltiplos de 10 de 2 dígitos (método escrito)
- Resta: Múltiplos de 10 de 2 dígitos (método escrito)
- Formas de 2 y 3 dimensiones: atributos, composición para crear una nueva forma, representación de formas bidimensionales en partes iguales
- La hora en relojes analógicos y digitales: horas, media hora

Adapted by Rock View Elementary School for 2022-23 "Math Workshop for Parents"

GRADE 2 MEASUREMENT TOPICS

Geometry (MP3 &4)

Operations and Algebraic Thinking (MP3 & 4)

Numbers and Operations in Base Ten

GRADE 2 MEASUREMENT TOPICS

El Resumen de Matemáticas en Cuarto Período de Calificaciones Para el Grado

MEASUREMENT TOPICS

Measurement Topics are categories of content and processes in a subject. What a child needs to know and be able to do changes (gets more complex) at each grade level.

- Geometry (MP3 &4)
- Operations and Algebraic Thinking (MP3 & 4)
- Numbers and Operations in Base Ten (MP4)

TÓPICOS DE MEDICIÓN

TÓPICOS DE MEDICIÓN son categorías relacionadas al contenido y procesos dentro de una materia. Lo que el estudiante necesita saber y debe poder hacer cambia (y es más complejo) en cada nivel de grado.

- Geometría (MP3 & 4)
- Operaciones y Razonamiento Algebraico (MP3 & 4)
- Números y Operaciones en el Sistema Decimal (MP4)

Mathematics

- Addition and subtraction within 1000 (concrete models, drawings, place value strategies, written methods)
- Addition and subtraction within 20 (sums of two 1-digit numbers from memory)
- Attributes of shapes: recognize, describe, draw (triangles, quadrilaterals, pentagons, hexagons, cubes)

Matemáticas

- Suma y resta hasta 1000 (modelos concretos, dibujos, estrategias por valor posicional, métodos escritos)
- Suma y resta hasta 20 (suma de dos dígitos de 1 dígito de memoria)
- Atributos de formas: reconocer, describir, dibujar (triángulos, cuadriláteros, pentágonos, hexágonos, cubos)

Mathematics

- Addition and subtraction within 1000 (concrete models, drawings, place value strategies, written methods)
- Addition and subtraction within 20 (sums of two 1-digit numbers from memory)
- Attributes of shapes: recognize, describe, draw (triangles, quadrilaterals, pentagons, hexagons, cubes)

Grade 3 MEASUREMENT TOPICS

Measurement and Data (MP3 & 4)

Operations and Algebraic Thinking (MP 3 & 4)

Geometry

Mathematics

- 1- and 2-step word problems (all operations)
- Multiplication and division fluency (within 100): facts with 0 to 10
- Telling and writing time: to nearest minute
- Word problems: addition and subtraction of time intervals in minutes using number line drawings
- Measurement and estimation: liquid volumes (liters), mass (grams, kilograms)
- 1-step word problems (all operations): mass or volume in same units
- Subcategories of quadrilaterals: attributes shared/not shared
- Perimeters of polygons
- Rectangles: same perimeter and different areas; same area and different perimeters
- Scaled picture graphs and scaled bar graphs

Grade 3 Marking Period 4 Math Summary

Resumen de Matemáticas en Cuarto Período de Calificaciones Para el Grado 3

MEASUREMENT TOPICS

Measurement Topics are categories of content and processes in a subject. It is a child's ability to know and be able to do changes that more complex in each grade level.

Measurement and Data (MP3 & 4)

Operations and Algebraic Thinking (MP 3 & 4)

Geometry (MP4)

TÓPICOS DE MEDICIÓN

TÓPICOS DE MEDICIÓN son categorías de contenido y procesos dentro de una materia. Lo que el estudiante necesita saber y debe poder hacer cambia de un nivel de grado a otro.

Medición y Datos (MP 3 & 4)

Operaciones y Razonamiento Algebraico (MP3 & 4)

Geometría (MP4)

Mathematics

- 1- and 2-step word problems (all operations)
- Multiplication and division fluency (within 100): facts with 0 to 10
- Telling and writing time: to nearest minute
- Word problems: addition and subtraction of time intervals in minutes using number line drawings
- Measurement and estimation: liquid volumes (liters), mass (grams, kilograms)
- 1-step word problems (all operations): mass or volume in same units
- Subcategories of quadrilaterals: attributes shared/not shared
- Perimeters of polygons
- Rectangles: same perimeter and different areas; same area and different perimeters
- Scaled picture graphs and scaled bar graphs

Mathematics

- Problemas de palabras de 1 y 2 pasos (todas las operaciones)
- Habilidad para multiplicar y dividir (dentro de 100): hechos con 0 hasta 10
- Decir y escribir la hora hasta el minuto más cercano
- Problemas de palabras (suma y resta) de intervalos de tiempo en minutos usando líneas de tiempo
- Medición y estimación: volúmenes líquidos (litros), masa (gramos, kilogramos)
- Problemas de palabras de 1 paso (todas las operaciones): masa o volumen en la misma unidad
- Subcategorías de cuadriláteros: atributos compartidos/compartidos
- Perímetros de los polígonos
- Rectángulos: igual perímetro y áreas diferentes; igual área y perímetros diferentes
- Gráficos de barras a escala y gráficos de barras a escala

Adapted by Rock View Elementary School for 2012-13 "Math Workshop for Parents"

GRADE 4 MEASUREMENT TOPICS

Geometry

Measurement and Data

Operations and Algebraic Thinking

Numbers and Operations in Base Ten & Fractions

Grade 4 Math Summary	
El Resumen de Matemáticas Para el Grado 4	
Marking Period 4	
Cuarto Período de Calificaciones	
Measurement Temas Medición: Problemas que involucran unidades de longitud, área y volumen. Operaciones y Pensamiento Algebraico Pensamiento Algebraico Números y Operaciones—Fracciones Números y Operaciones en Base Diez	MATHEMATICS Measurement and Data • Understand and apply concepts of angle measurement • Solve measurement problems involving distances, liquid volumes, and intervals of time Geometry • Classify 2-dimensional shapes by properties of their lines and angles • Draw and identify lines, rays, and angles Number and Operations—Fractions • Understand decimal notation for fractions with denominators of 10 or 100 • Add fractions with denominators of 10 and 100 • Compare decimals to hundredths by reasoning about their size Number and Operations in Base Ten • Use equations, rectangular arrays, area models, place-value strategies, and properties of operations to multiply 2-digit by 2-digit numbers • Solve multistep word problems with four operations Operations and Algebraic Thinking • Generate and analyze number and shape patterns
Medición Temas Medición: Problemas que involucran unidades de longitud, área y volumen. Operaciones y Pensamiento Algebraico Pensamiento Algebraico Números y Operaciones—Fracciones Números y Operaciones en Base Diez	MATHEMÁTICAS Medición y Datos • Entender y aplicar conceptos de medición de ángulos. • Resolver problemas que involucren distancias, volúmenes líquidos, e intervalos de tiempo. Geometría • Clasificar figuras bidimensionales por las propiedades de sus líneas y ángulos. • Dibujar e identificar líneas, rayos, y ángulos. Números y Operaciones—Fracciones • Entender la notación decimal para fracciones con denominadores de 10 o de 100. • Sumar fracciones con denominadores de 10 y de 100. • Comparar decimales a centésimas razonando sobre su tamaño. Números y Operaciones en Base Diez • Usar ecuaciones, arreglos rectangulares, modelos de área, estrategias de valor posicional, y propiedades de las operaciones para multiplicar números de 2 dígitos por 2 dígitos. • Resolver problemas de palabras que involucren cuatro operaciones. Operaciones y Pensamiento Algebraico • Generar y analizar patrones de números y de formas.

MATHEMATICS

Measurement and Data:

- Understand and apply concepts of angle measurement
- Solve measurement word problems involving distances, liquid volumes, and intervals of time.

Geometry:

- Classify 2-dimensional shapes by properties of their lines and angles
- Draw and identify lines, rays, and angles.

Number and Operations—Fractions:

- Understand decimal notation for fractions with denominators of 10 or 100
- Add fractions with denominators of 10 and 100
- Compare decimals to hundredths by reasoning about their size.

Number and Operations in Base Ten:

- Use equations, rectangular arrays, area models, place-value strategies, and properties of operations to multiply 2-digit by 2-digit numbers
- Solve multistep word problems with four operations.

Operations and Algebraic Thinking:

- Generate and analyze number and shape patterns.

Grade 5 MEASUREMENT TOPICS

Measurement and Data

Geometry

Operations and Algebraic Thinking

Number and Operations in Base Ten

MATHEMATICS

Measurement and Data:

- Solve multi-step word problems involving conversion of measurement units.

Number and Operations in Base Ten:

- Use concrete models, drawings, written methods, place value strategies, and properties of operations to multiply and divide decimals to hundredths.

Geometry:

- Graph points on a coordinate plane; classify two-dimensional figures in a hierarchy based on properties.

Operations and Algebraic Thinking:

- Generate, analyze, and graph numerical patterns using two given rules.

Grade 5 Math Summary

El Resumen de Matemáticas Para el Grado 5

Marking Period 4

Cuarto Periodo de Calificaciones

Measurement Topics	MATHEMÁTICAS
<p>Measurement Topics are categories of content and processes in a subject. What a child needs to know and do will be determined by the child's level of complexity at each grade level.</p> <p>Number and Operations—Fractions:</p> <ul style="list-style-type: none">• Operations and Algebraic Thinking <p>Geometry:</p> <ul style="list-style-type: none">• Operations and Algebraic Thinking <p>Operations and Algebraic Thinking:</p> <ul style="list-style-type: none">• Operations and Algebraic Thinking <p>Number and Operations in Base Ten:</p> <ul style="list-style-type: none">• Operations and Algebraic Thinking <p>Measurement and Data:</p> <ul style="list-style-type: none">• Operations and Algebraic Thinking	<p>Measurement and Data:</p> <ul style="list-style-type: none">• Solve multi-step word problems involving conversion of measurement units. <p>Number and Operations in Base Ten:</p> <ul style="list-style-type: none">• Use concrete models, drawings, written methods, place value strategies, and properties of operations to multiply and divide decimals to hundredths. <p>Geometry:</p> <ul style="list-style-type: none">• Graph points on a coordinate plane; classify two-dimensional figures in a hierarchy based on properties. <p>Operations and Algebraic Thinking:</p> <ul style="list-style-type: none">• Generate, analyze, and graph numerical patterns using two given rules.
Tópicos De Medición	MATHEMÁTICAS
<p>TÓPICOS DE MEDICIÓN son categorías relacionadas al contenido y procesos dentro de una materia. Lo que el estudiante necesita saber y cómo poder hacer sentido de lo más complejo en cada nivel de grado.</p> <p>Números y Operaciones en el Sistema Decimal:</p> <ul style="list-style-type: none">• Operaciones y Pensamiento Algebraico <p>Geometría:</p> <ul style="list-style-type: none">• Operaciones y Pensamiento Algebraico <p>Operaciones y Pensamiento Algebraico:</p> <ul style="list-style-type: none">• Operaciones y Pensamiento Algebraico <p>Números y Operaciones en el Sistema Decimal:</p> <ul style="list-style-type: none">• Operaciones y Pensamiento Algebraico <p>Medición y Datos:</p> <ul style="list-style-type: none">• Operaciones y Pensamiento Algebraico	<p>Medición y Datos:</p> <ul style="list-style-type: none">• Resolver problemas escritos de múltiples pasos que involucren la conversión de medidas de unidad. <p>Números y Operaciones en el Sistema Decimal:</p> <ul style="list-style-type: none">• Usar modelos concretos, dibujos, métodos escritos, estrategias de valor posicional, y propiedades de las operaciones para multiplicar y dividir decimales hasta los centos. <p>Geometría:</p> <ul style="list-style-type: none">• Graficar puntos en un plano de coordenadas; clasificar figuras bidimensionales en una jerarquía basada en propiedades. <p>Operaciones y Razonamiento Algebraico:</p> <ul style="list-style-type: none">• Generar, analizar, y graficar patrones numéricos usando dos reglas dadas.

Adapted by RSC View Elementary School for 2013-14 "Math Workshop for Parents"

Grade Level Vocabulary

Marking Period 4

Represent: display addition or subtraction processes using concrete materials, pictures, numbers, words, or acting it out.

Spanish for Represent: definición

Part-Part-Total Mat: a mat used to organize concrete materials to make sense of a problem.

Examples:

Spanish for Part-Part-Total Mat: definición

decomposing: breaking a number into two or more parts to make it easier with which to work. For example: When combining a set of 5 and a set of 8, a student might decompose 8 into a set of 3 and a set of 5, making it easier to see that the two sets of 5 make 10 and then there are 3 more for a total of 13.

Des-componer: separar un número en dos o más partes para poder comprender la cantidad del número. Por ejemplo, cuando combinamos un grupo de 5 y un grupo de 8, un estudiante podría descomponer 8 dentro de un grupo de 3 y un grupo de cinco, haciendo más fácil para ver que los dos grupos de 5 hacen 10 y entonces tenemos 3 más con un total de 13.

GRADE 2 MCCSC VOCABULARY
Marking Period 4

Decomposing: breaking a number into two or more parts to make it easier with which to work. For example: When combining a set of 5 and a set of 8, a student might decompose 8 into a set of 3 more for a total of 13.

Decomponer: separar un número en dos o más partes para poder comprender la cantidad del número. Por ejemplo, cuando combinamos un grupo de 5 y un grupo de 8, un estudiante podría descomponer 8 dentro de un grupo de 3 y un grupo de cinco, haciendo más fácil para ver que los dos grupos de 5 hacen 10 y entonces tenemos 3 más con un total de 13.

Compose: Composing (opposite of decomposing) is the process of joining numbers into a whole number. To combine smaller parts. For example: These are two different ways to "compose" 5.

Componer: Componer (es lo opuesto a des-componer) es el proceso de juntar números into un número entero... para combinar las partes más pequeñas. Por ejemplo: 1 + 4 = 5, 2 + 3 = 5. These are two different ways to "compose" 5.

Doubles plus: When adding $5 + 9$, I know that $5 + 5 = 10$, leaving 4 leftover. So I add $10 + 4$ to get 14. This would also be a sample of using decomposition to solve a problem.

Spanish for doubles plus: definición

inverse operations: two operations that undo each other. Addition and subtraction are inverse operations. Multiplication and division are inverse operations.

Operaciones inversas: Dos operaciones que se anulan a sí mismas. La suma y la resta son operaciones inversas.

Ejemplo: $4 + 5 = 9$, $9 - 5 = 4$ $6 \times 5 = 30$, $30 \div 5 = 6$

fact family: a collection of related addition and subtraction facts or multiplication and division facts, made from the same numbers. For 7, 8, and 15, the addition/subtraction fact family consists of $7 + 8 = 15$, $8 + 7 = 15$, $15 - 8 = 7$, and $15 - 7 = 8$. For 5, 6, and 30, the multiplication/division fact family consists of $5 \times 6 = 30$, $6 \times 5 = 30$, $30 \div 5 = 6$, and $30 \div 6 = 5$.

Fact/Data familiar: una colección de fact family consists of $5 \times 6 = 30$, $6 \times 5 = 30$, $30 \div 5 = 6$, and $30 \div 6 = 5$.

First Grade MCCSC VOCABULARY
Marking Period 4

composite figure: a figura that is made up of two or more geometric figures.

Formas compuestas: Una figura hecha de 2 o más figuras geométricas.

attribute: A characteristic of an object such as color, shape, size, etc.

Atributo: Una característica de un objeto tal como color, forma, tamaño, etc.

2-dimensional (2D): Lying in a plane; flat.

Bidimensional: Sobre un nivel plano.

3-dimensional (3D): Solid shapes; having points or sides that are not all on one plane. A solid shape that has length, width, and height.

Tridimensional: Una figura sólida que tiene largo, ancho, y alto.

Third Grade MCCSC VOCABULARY
Marking Period 4

attribute: A characteristic of an object such as color, shape, size, etc.

Atributo: Una característica de un objeto tal como color, forma, tamaño, etc.

2-dimensional (2D): Lying in a plane; flat.

Bidimensional: Sobre un nivel plano.

3-dimensional (3D): Solid shapes; having points or sides that are not all on one plane. A solid shape that has length, width, and height.

Tridimensional: Una figura sólida que tiene largo, ancho, y alto.

plane: A plane is a flat surface with no thickness.

Plano: Una parte plana de la superficie.

solid: A shape that is not flat; an object that has three dimensions. (i.e. Height, length, and width.)

Sólido: Una figura que tiene tres dimensiones -- anchura, altura, y profundidad.

Rectilinear figures: a polygon which has only 90° and possibly 270° angles and an even number of sides.

Figura rectilinear: Es un polígono donde todos sus ángulos son rectos

Examples:

Page 1 of 4

Curriculum 2.0 Vocabulary

“Vocabulary words are the building blocks of the internal learning structure. Vocabulary is also the tool to better define a problem, seek more accurate solutions, etc.”

— [Ruby K. Payne, *Bridges Out of Poverty: Strategies for Professionals and Communities*](#)

Kindergarten

Marking Period 4 Vocabulary

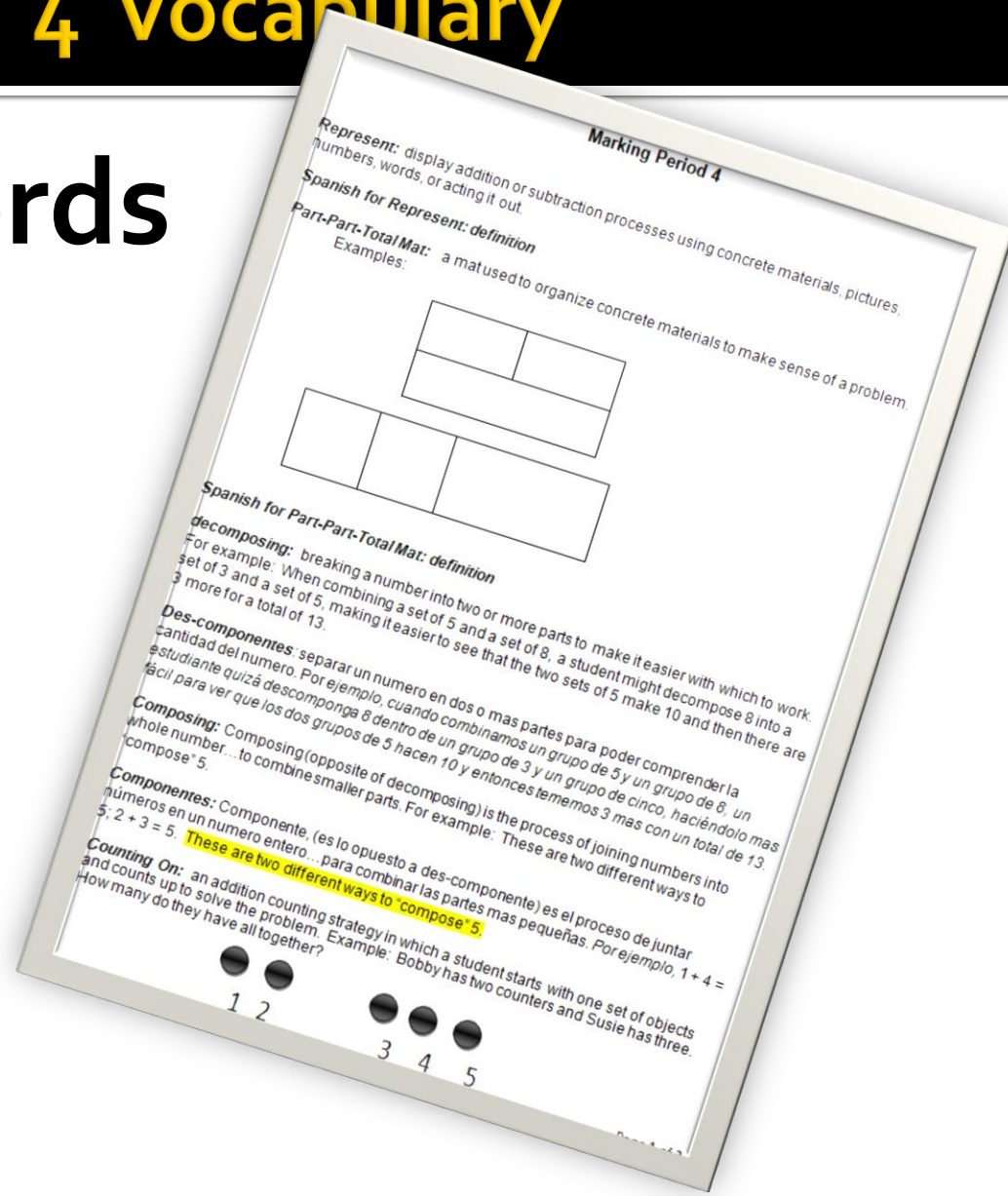
Highlighted Words

Counting On

Compose

Decompose

Counting Back



Grade 1

Marking Period 4 Vocabulary

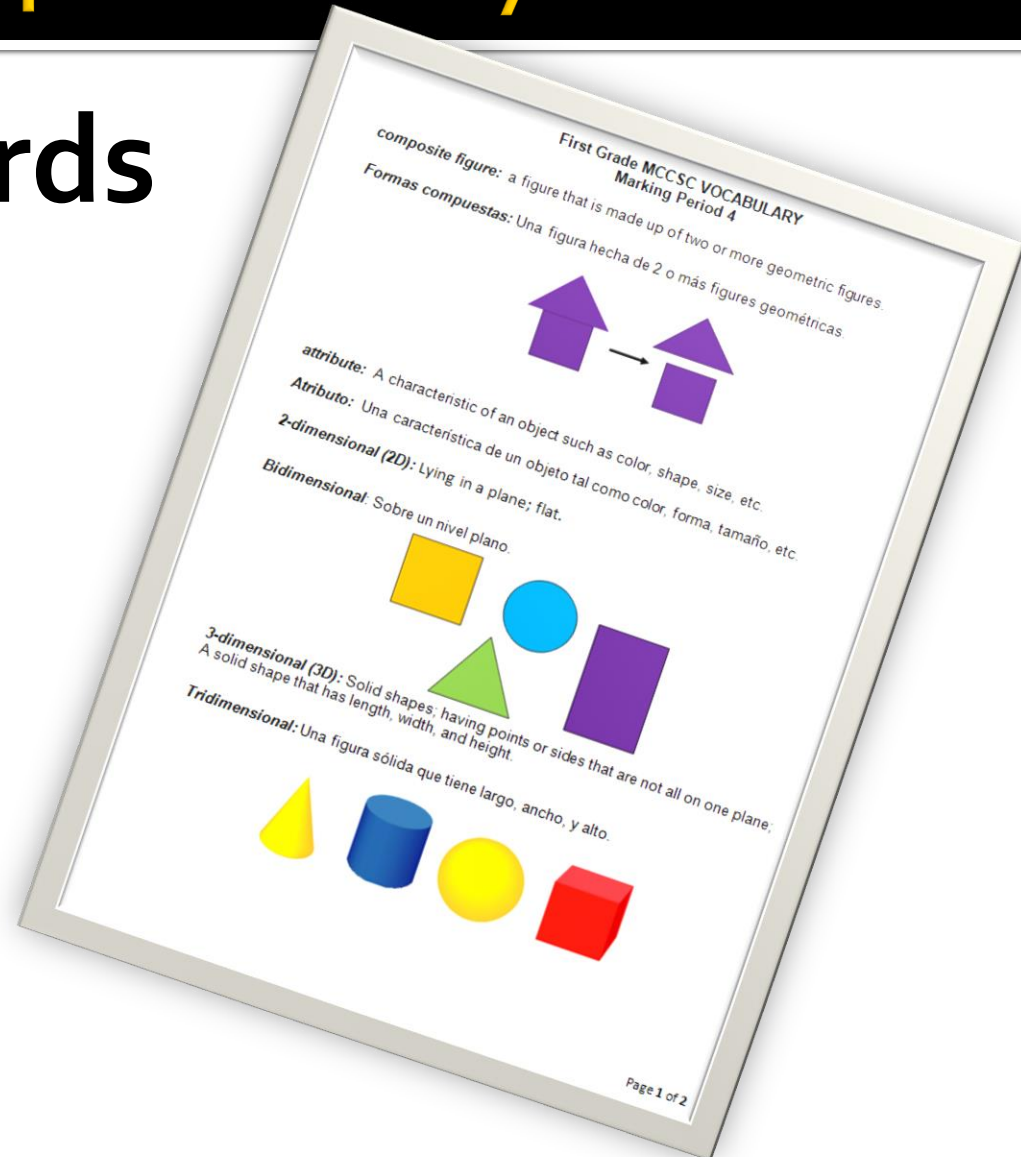
Highlighted Words

Analog Clock

Attributes

Partitioning

Composite figure



Grade 2

Marking Period 4 Vocabulary

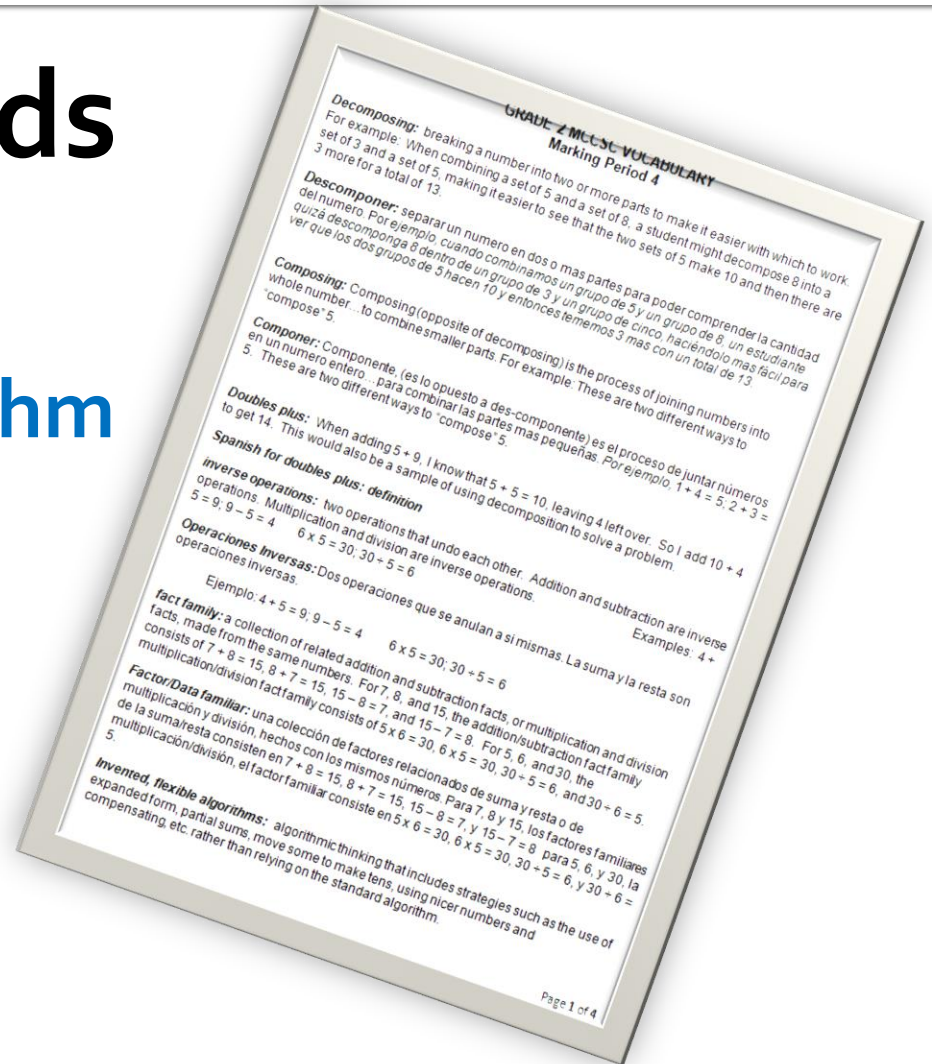
Highlighted Words

Invented Flexible Algorithm

Inverse Operation

Doubles Plus

Partial Sum



Grade 3

Marking Period 4 Vocabulary

Highlighted Words

Elapsed Time

Estimate

Scaled Bar Graph

Scaled Picture Graph



Grade 4

Marking Period 4 Vocabulary

Highlighted Words

Angle

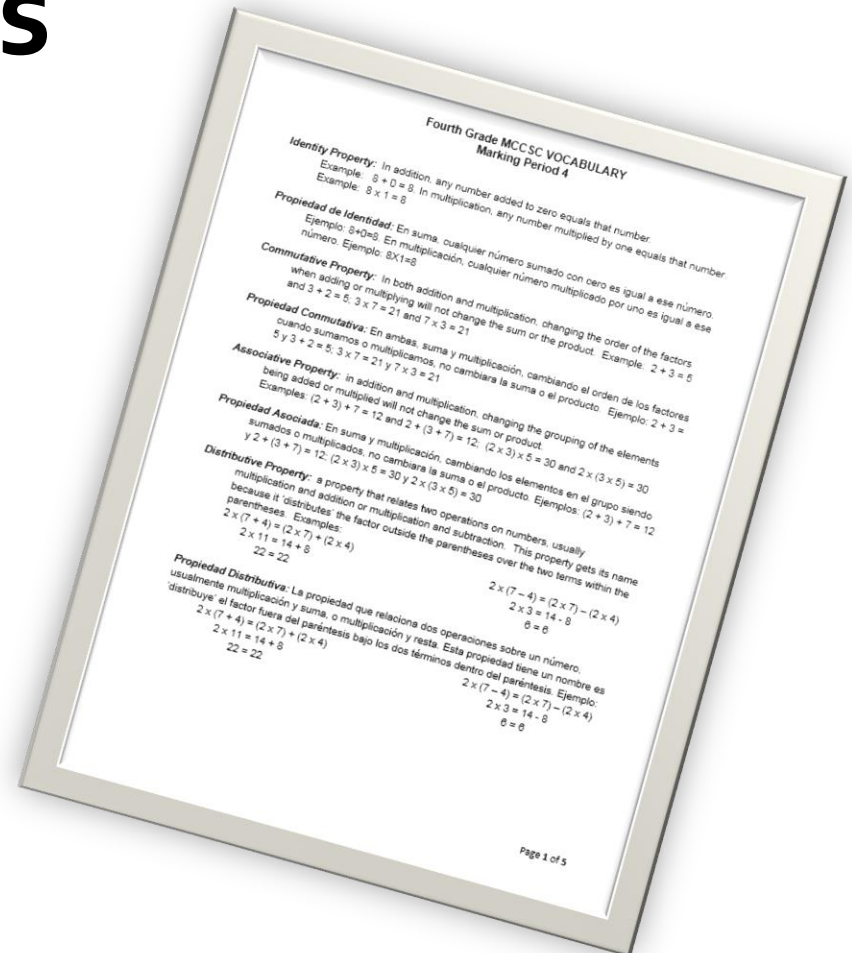
Right Angle

Acute Angle

Obtuse Angle

Perpendicular lines

Parallel lines



Grade 5

Marking Period 4 Vocabulary

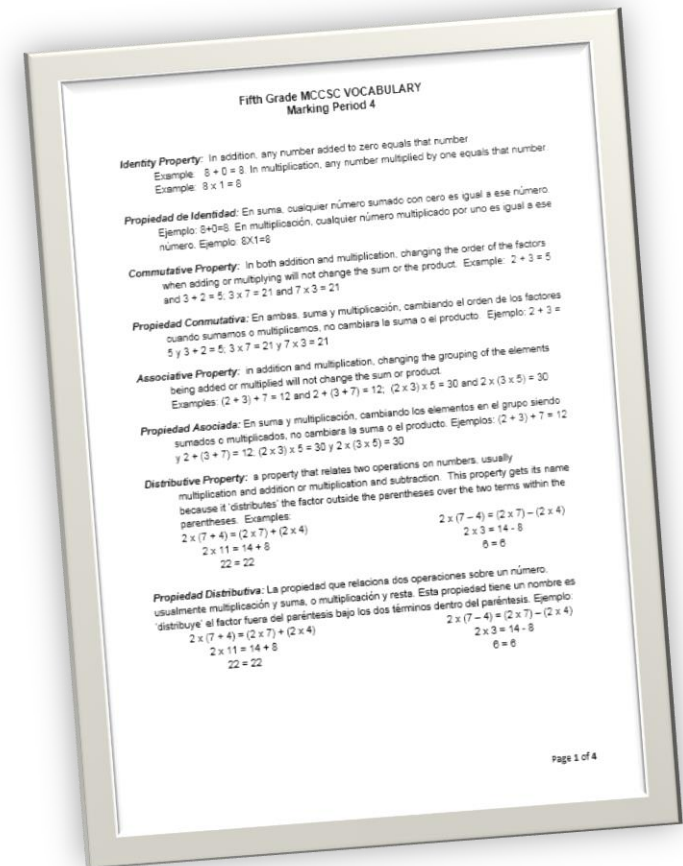
Highlighted Words

Ordered pairs/coordinate
pairs

Coordinate plans/
Coordinate system

Axes – x and y

Origin



Math in 2014 - 2015

ROLL-OUT PLAN

	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
C2.0 Kindergarten–Math 3					
C2.0 Math 4					
C2.0 Math 5					
C2.0 Math 6					
C2.0 Math 7 & C2.0 I.M.					
C2.0 Math 8					
C2.0 Algebra 1					
C2.0 Geometry					
C2.0 Algebra 2					
C2.0 Pre-Calculus					

Shading identifies years of implementation.

- **Understanding**—comprehending concepts, operations, and relations
- **Computing**—carrying out procedures
- **Applying**—formulating and solving mathematical problems
- **Reasoning**—using logic to explain a solution or justify why the mathematics works
- **Engaging**—seeing math as useful, sensible, and doable

Grade Level Activities

- Grade K – Dice Addition & Coin Top
- Grade 1 – Tangram Squares & Lucky Six
- Grade 2 – 5 in a Row
- Grade 3 – Perimeter with Color Tiles, The Perimeter Stays the Same, The Area Stays the Same, & Collecting and Representing Data
- Grade 4- Vocabulary Football & Twisted Triangle
- Grade 5 – Guess my Sort & The Attributes Game

Closure & Feedback

- Please complete and return the Survey at the end of the evening.
- Make sure to pick up any documents from today's information session

Thank you

Thank You



