

Circle 3 Syllabus



Course Summary

This course is meant for students ages 6 to 9 who have completed the Common Core (or equivalent) for Grade 2. Students will be exposed to the Focus Areas section listed below, and we expect students to master the skills listed in the Expected Outcomes section listed below.

Focus Areas at this Level

Concepts, skills, and learning tools students see in this course include, but are not limited to:

- Count, compare, add and subtract numbers up to 100,000,000 using different strategies
- Multiply and divide by single digit numbers
- Determine the perimeter and area of rectangles and rectilinear shapes

Expected Outcomes

Students will be **expected to adequately perform in or explain** the following areas after course completion:

- Place value up to 100,000,000s
- Addition and subtraction of numbers under 100,000,000
- Multiplication and division by one-digit numbers
- Mental calculation strategies for addition, subtraction, multiplication and division
- Making and interpreting graphs
- Understanding wholes versus parts using simple tuples and fractions
- Equations using balance scales, guess and check and inverse operations
- Basic measurements in length, weight, money, time, and capacity
- Graphs and coordinates
- Areas of shapes, composite shapes and symmetry

Pre Requisites

Students registering for this course should be **comfortable with the following Math**:

- Counting, adding and subtracting with 3-digit numbers
- Distinguish between ones, tens, hundreds, and thousands
- Solving for unknown numbers in a simple addition/subtraction equation
- Using a ruler to measure inches or centimeters to the nearest whole number
- Understanding what halves represent

Students should also be **willing and able to**:

- Communicate in English at a beginner's level
- Be respectful of other students in their classes
- Practice writing things down on paper
- Share their thoughts with the instructors to help them discover solutions to their problems
- Take constructive criticism when it comes to their learning habits

Course Materials (Required)

- All classes will be taught online, via [Zoom](#). Your student will need a device with a microphone and camera.
- Parents are expected to have read and understood the Parent Handbook
 - Parents should review the expectations in class with their student(s)
 - Parents of this age group will need to help their students learn the technology used on the student's end

Students should also have access to:

- Ruler
- Pencils
- Eraser
- Paper
- Colored pencils or markers
- Reliable internet connection and digital device capable of using Zoom effectively

Homework Expectations

Homework at EMC is set up to be flexible for the needs of your student. Usually we feel students fall into three general categories:

- EMC is **replacing public school** or accelerating my student for **testing out of Math** in the future
 - All Homework is **mandatory**
- EMC is helping **improve my grades** or **skills**
 - Homework is **highly recommended**, we recommend concentrating on school homework first
- EMC is for **interest's sake** and/or for **exposure** to problem solving **before seeing it in school**
 - Homework is **recommended, yet optional**

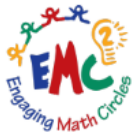
Homework Delivery

Homework is delivered in a two main ways:

- **Practice Homework**
 - Nearpod, an interactive slideshow, facilitates self-paced learning including lesson review and extra practice at the end of each Content section
 - Lesson slides you already may have seen are provided as reference for review
 - Draw It, Quiz or Matching slides are the **mandatory practice**
 - "Extras" are extra practice and competition style questions to keep other skills sharp
 - PDFs to download and print the lesson or questions are also made available
- **Assessment Homework** (aka Quizzes, Tests)
 - Canvas, set of questions to show instructors a student's understanding of the content
 - Auto-graded upon submission
 - Instructors adjust grades after seeing results to give partial marks where appropriate, and plan to cover certain problem areas in the Homework Check portion of next class

Course Calendar

On yellow dates on the calendar below, no classes are held. Some days of the week (Sat, Sun, Mon) have less classes per year. These courses will have slightly condensed in-class schedules, and your instructor will let you know which homework assignments to do each week.



EMC SCHOOL

2026-2027 School Calendar

August 2026						
M	Tu	W	Th	F	Sa	Su
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

September 2026						
M	Tu	W	Th	F	Sa	Su
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

October 2026						
M	Tu	W	Th	F	Sa	Su
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

November 2026						
M	Tu	W	Th	F	Sa	Su
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

December 2026						
M	Tu	W	Th	F	Sa	Su
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

January 2027						
M	Tu	W	Th	F	Sa	Su
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

February 2027						
M	Tu	W	Th	F	Sa	Su
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

March 2027						
M	Tu	W	Th	F	Sa	Su
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

April 2027						
M	Tu	W	Th	F	Sa	Su
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

May 2027						
M	Tu	W	Th	F	Sa	Su
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

June 2027						
M	Tu	W	Th	F	Sa	Su
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

First and Last Day of School
 School Holidays & Vacations

Aug 17 First Day of Classes
 Sep 5 - 7 Labor Day Weekend - No Classes
 Nov 23 - 29 Thanksgiving Week - No Classes
 Dec 21 - Jan 3 Winter Break - No Classes

Apr 12 - 18 Spring Break - No Classes
 May 29 - 31 Memorial Day - No Classes
 Jun 13 Last Day of School

Course Itinerary

Chapter	Lesson	Class Dates	Focus Skills
Chapter 1: Place Value	1) Place Value (up to 1,000)	Aug 17- Aug 23	<ul style="list-style-type: none"> understanding that 10 groups of the previous digit makes the larger digit
	2) Place Value (up to 100,000,000)	Aug 24 - Aug 30	<ul style="list-style-type: none"> names and naming patterns of larger place values name to digits, digits to name
	3) Number Systems	Aug 31 - Sept 6 OFF Sat Sept 5, Sun Sept 6 Labor Day	<ul style="list-style-type: none"> Roman numerals Metric prefixes Hexadecimal
Chapter 2: Ordering Numbers	4) Number Lines	Sept 7 - Sept 13 OFF Mon Sept 7 Labor Day	<ul style="list-style-type: none"> filling in missing values as a modeling tool
	5) Greater Than, Less Than, Ordering	Sept 14 - Sept 20	<ul style="list-style-type: none"> define $>$, $<$, \leq, \geq and $=$ ordering sets and subsets of numbers
	6) Comparing Larger Numbers	Sept 21 - Sept 27	<ul style="list-style-type: none"> comparing by most significant digit ordering sets of larger numbers using estimation
Chapter 3: Addition and Subtraction	7) + and - in Hundreds	Sept 28 - Oct 4	<ul style="list-style-type: none"> utilize mental math strategies to add and subtract define addition, sum, subtract, minus, difference
	8) + and - Strategies	Oct 5 - Oct 11	<ul style="list-style-type: none"> making friendly numbers stacking algorithm with regrouping
	9) + and - by Place Value	Oct 12 - Oct 18	<ul style="list-style-type: none"> stacking algorithm up to 5 digits with regrouping
	10) + and - Larger Numbers	Oct 19 - Oct 25	<ul style="list-style-type: none"> stacking algorithm up to 9 digits being careful to line up place values
	11) Challenging Differences	Oct 26 - Nov 1	<ul style="list-style-type: none"> chain borrowing and larger carries fluently able to add any whole number to any other whole number
Chapter 4: Number Patterns	12) Doubling and other Tuples	Nov 2 - Nov 8	<ul style="list-style-type: none"> methods to double by place value triple, quadruple, etc..
	13) Halves, Evens, and Odds	Nov 9 - Nov 15	<ul style="list-style-type: none"> determining if numbers are even or odd finding halves by place value

			<ul style="list-style-type: none"> • even or odd determining outcomes
Chapter 5: Multiplication and Division	14) Skip Counting	Nov 16 - Nov 22	<ul style="list-style-type: none"> • skip counting by any whole number • patterns when we continuously add same number
Holiday	Thanksgiving	OFF Nov 23 - Nov 29	Have a great week!
Chapter 5: Multiplication and Division	15) Multiplication	Nov 30 - Dec 6	<ul style="list-style-type: none"> • multiples as counting by groups • defining the “\times” symbol
	16) Division	Dec 7 - Dec 13	<ul style="list-style-type: none"> • splitting objects into same sized groups • defining the “\div” symbol, divisor, quotient, dividend
17) Midterm Review		Dec 14 - Dec 20	<ul style="list-style-type: none"> • Review of Chapters 1 through 4
Holiday	Winter Break	OFF 2 WEEKS Dec 21 - Jan 3	Have a great break!
Chapter 6: Fractions	18) Modeling Fractions	Jan 4 - Jan 10	<ul style="list-style-type: none"> • parts versus wholes • identifying fractions from images • visually as “sharing desserts”
	19) Adding Fractions	Jan 11 - Jan 17	<ul style="list-style-type: none"> • adding simple fractions, including overflow over a whole • visually as “putting extra slices away”
	20) Equivalent Fractions	Jan 18 - Jan 24	<ul style="list-style-type: none"> • using tuples to make equivalent fractions • visually as “sharing with more guests”
	21) Comparison of Fractions	Jan 25 - Jan 31	<ul style="list-style-type: none"> • using equivalent fractions to compare fractions
	22) Closest Whole Number	Feb 1 - Feb 7	<ul style="list-style-type: none"> • using estimation with fractions to determine closest whole numbers • simple rounding of mixed fractions
Chapter 7: Algebraic Thinking	23) Expressions, Equations and Parentheses	Feb 8 - Feb 14	<ul style="list-style-type: none"> • differences between expressions, equations and operators • placing parentheses to make different outcomes
	24) Order of Operations (P_MDAS)	Feb 15 - Feb 21	<ul style="list-style-type: none"> • formal rules of order of operations • determining and applying order to 2 or 3 step expressions
	25) Variables and Canceling	Feb 22 - Feb 28	<ul style="list-style-type: none"> • variables as missing values • adding cancels subtracting

			<ul style="list-style-type: none"> • multiplication cancels division
	26) Balancing Scales	Mar 1 - Mar 7	<ul style="list-style-type: none"> • removing like objects from both sides • writing equations from scales
27) Spring Review		Mar 8 - Mar 14	<ul style="list-style-type: none"> • Review of Chapters 6 through 7 • Math Map Where does this go?
Chapter 7: Algebraic Thinking	28) Rearranging Operations	Mar 15 - Mar 21	<ul style="list-style-type: none"> • how to make expressions simpler • when can we rearrange operations and not affect the correct answer
Chapter 8: Measurement	29) Graphing	Mar 22 - Mar 28	<ul style="list-style-type: none"> • how to read data off a bar, line or histogram • how to plot points on an xy-plane
	30) Inches and Centimeters	Mar 29 - Apr 4	<ul style="list-style-type: none"> • measuring and adding in both cm and inches
	31) Other Units of Length	Apr 5 - Apr 11	<ul style="list-style-type: none"> • feet, yards, miles • mm, cm, m, km • revisit metric prefixes
Holiday	Spring Break	OFF Apr 12 - Apr 18	Have a great week!
Chapter 8: Measurement	32) Units of Time	Apr 19 - Apr 25	<ul style="list-style-type: none"> • using time in seconds, minutes, hours and days, weeks, months, years, decades, centuries and millennia
	33) Volume, Weight and Mass	Apr 26 - May 2	<ul style="list-style-type: none"> • cups, L, quarts, pints, gallons, mL • pounds, grams and kilograms • difference between weight and mass
Chapter 9: Geometry	34) Perimeter	May 3 - May 9	<ul style="list-style-type: none"> • adding distances to make perimeter • perimeters of composite shapes
	35) Area	May 10 - May 16	<ul style="list-style-type: none"> • counting square units • comparing square units
	36) Fractional Areas	May 17 - May 23	<ul style="list-style-type: none"> • finding areas of more complex shapes with an overlaid grid • combining halves, quarters and other fractions to make whole squares
	37) Symmetry	May 24 - May 30 OFF Sat Sun May 29 and 30 Memorial Day	<ul style="list-style-type: none"> • reflective symmetry • rotational symmetry • symmetry in nature

	38) 3D Shapes and Surface Area	May 31 - June 6 OFF Mon May 31 Memorial Day	<ul style="list-style-type: none"> • names and classification of 3D shapes (prisms, pyramids, cylinders, cones, spheres) • flattening 3D cuboids and finding the total surface area (revisiting Lesson 34 where needed)
39) Final Review		June 7 - June 13	<ul style="list-style-type: none"> • Review of Chapters 5 through 10