

Circle 2 Syllabus



Course Summary

Circle 2 is an engaging, foundational math course designed to introduce students to multiplication, division, and fractions while strengthening their skills in addition and subtraction with numbers up to 1000. Aligned with the Common Core State Standards for Grades 2 and 3, this course is ideal for students ages 5 to 8 who can already add and subtract two-digit numbers, skip count by 1s, 2s, 5s, and 10s, and solve simple one-step equations. With a focus on building **problem-solving skills**, students will explore various strategies through interactive learning, **logic puzzles**, and **friendly competition-style challenges** to keep young minds active and inspired.

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 1000 using different strategies
- Skip counting to lay the foundation for multiplication, fractions to lay the foundation for division
- Apply patterns to: shapes like symmetry, and graphs to data interpretation

Expected Outcomes

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

- Place value up to 1,000s
- Addition and subtraction of numbers under 1,000
- Regrouping (carrying and borrowing)
- Multiplication and division of one- and two-digit numbers
- Mental calculation strategies
- 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

Pre Requisites

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

- Addition and Subtraction with two 2-digit numbers (including borrowing and carrying)
- Arithmetic with 1-step equations (ex: circle + 4 = 9 ; circle = 5)
- Skip counting by 1, 2, 5, and 10
- Comparing numbers by size (up to 999)
- Place value to hundreds

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

- Communicate verbally at a basic level
- Learn to read and write numbers and simple words
- 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:

- Countable objects (dry beans, large beads, blocks, rods)
- A nearby parent or guardian to:
 - help the student focus
 - help operate the technology (muting and annotating at appropriate times)
 - restate a question if the teacher is busy helping another student
 - this requirement should ease off as the student becomes more comfortable with technology and our class format
- 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

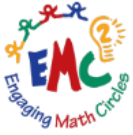
Homework is delivered in a two main ways:

- **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) The Number Line	Aug 17- Aug 23	<ul style="list-style-type: none"> using the number line to review counting, addition and subtraction
	2) Base 10 Blocks	Aug 24 - Aug 30	<ul style="list-style-type: none"> identifying numbers by their base 10 block representations
	3) Place Value: Hundreds	Aug 31 - Sept 6 OFF Sat Sept 5, Sun Sept 6 Labor Day	<ul style="list-style-type: none"> identifying 100 as ten 10s building numbers out of 10s or 100s
	4) Arranging Numbers	Sept 7 - Sept 13 OFF Mon Sept 7 Labor Day	<ul style="list-style-type: none"> sorting 3-digit numbers by their place value
Chapter 2: Mental Math: Addition and Subtraction	5) Whole Tens and Hundreds	Sept 14 - Sept 20	<ul style="list-style-type: none"> splitting addition into smaller problems adding whole tens and hundreds to 3-digit numbers
	6) Addition Strategies	Sept 21 - Sept 27	<ul style="list-style-type: none"> making whole tens all in parts paying off debt
	7) Subtraction Strategies	Sept 28 - Oct 4	<ul style="list-style-type: none"> hundreds chart “walks” visual subtraction using base 10 blocks
	8) More Strategies	Oct 5 - Oct 11	<ul style="list-style-type: none"> subtraction as distance number bonds compensation
Chapter 3: Intermediate Addition and Subtraction	9) Carrying and Borrowing	Oct 12 - Oct 18	<ul style="list-style-type: none"> how to regroup standard stacking algorithm
	10) Bar Models	Oct 19 - Oct 25	<ul style="list-style-type: none"> using scale bars and estimation to solve subtraction problems
	11) Challenge Problems	Oct 26 - Nov 1	<ul style="list-style-type: none"> applying your strategies to different problems
Chapter 4: Grouping	12) Skip Counting	Nov 2 - Nov 8	<ul style="list-style-type: none"> counting by groups filling in missing numbers
	13) Visual Skip Counting	Nov 9 - Nov 15	<ul style="list-style-type: none"> skip counting on 100 chart skip counting patterns
	14) Introductory Multiplication	Nov 16 - Nov 22	<ul style="list-style-type: none"> multiples as counting by groups defining the “\times” symbol
Holiday	Thanksgiving	OFF Nov 23 - Nov 29	Have a great week!x

Chapter 4: Grouping	15) Introductory Division	Nov 30 - Dec 6	<ul style="list-style-type: none"> splitting objects into same sized groups defining the “÷” symbol
Chapter 5: Parts vs Wholes	16) Number Systems	Dec 7 - Dec 13	<ul style="list-style-type: none"> Cuneiform (Babylonian) numerals Mayan numbers Roman numerals
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 5: Parts vs Wholes	18) Natural Numbers	Jan 4 - Jan 10	<ul style="list-style-type: none"> what amount of objects exist naturally without interference parts versus wholes
	19) Introduction to Fractions	Jan 11 - Jan 17	<ul style="list-style-type: none"> identifying fractions from shaded portions of images shading in images given a fraction
	20) Tuples and Splitting	Jan 18 - Jan 24	<ul style="list-style-type: none"> double, triple and quadruple halves, thirds and quarters
	21) Unit Fractions	Jan 25 - Jan 31	<ul style="list-style-type: none"> adding and subtracting unit fractions comparing unit fractions (visual)
Chapter 6: Equations	22) Equations: Introduction, Balance Scale	Feb 1 - Feb 7	<ul style="list-style-type: none"> what is and is not an equation using balance scales as a model for equations
	23) Equations: Modeling Subtraction	Feb 8 - Feb 14	<ul style="list-style-type: none"> modeling subtraction on a balance scale
	24) Equations: Challenging Problems	Feb 15 - Feb 21	<ul style="list-style-type: none"> applying learned skills to solve equations
Chapter 7: Statistics	25) Venn Diagrams	Feb 22 - Feb 28	<ul style="list-style-type: none"> classifying objects via traits overlapping traits in the center
	26) Counting Principles	Mar 1 - Mar 7	<ul style="list-style-type: none"> how to count arrangements and outcomes via enumeration
27) Spring Review		Mar 8 - Mar 14	<ul style="list-style-type: none"> Review of Chapters 6 through 9 Math Map Where does this go?

Chapter 7: Statistics	28) Bar Graphs and Graphing Data	Mar 15 - Mar 21	<ul style="list-style-type: none"> • how to collect data and put them onto bar graphs • histograms
	29) Coordinates, Translation	Mar 22 - Mar 28	<ul style="list-style-type: none"> • how to name points on a plane • how to describe motion on a plane
Chapter 8: Measurement	30) Length	Mar 29 - Apr 4	<ul style="list-style-type: none"> • measuring cm and inches • other units of length
	31) Weight	Apr 5 - Apr 11	<ul style="list-style-type: none"> • pounds and grams and kilograms • other units of weight
Holiday	Spring Break	OFF Apr 12 - Apr 18	Have a great week!
Chapter 8: Measurement	32) Money	Apr 19 - Apr 25	<ul style="list-style-type: none"> • counting money • adding money
	33) Time and Calendars	Apr 26 - May 2	<ul style="list-style-type: none"> • telling time on a clock • telling the date from a calendar
	34) Adding Time	May 3 - May 9	<ul style="list-style-type: none"> • adding time in minutes, hours and days
Chapter 9: Geometry	35) 2D and Composite Shapes	May 10 - May 16	<ul style="list-style-type: none"> • identifying shapes by their properties • constructing shapes out of others • area introduction
	36) Fractional Areas	May 17 - May 23	<ul style="list-style-type: none"> • finding areas of shapes with an overlaid grid • combining halves and quarters to make wholes
	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
	38) 3D Shapes	May 31 - June 6 OFF Mon May 31 Memorial Day	<ul style="list-style-type: none"> • vertex, edge, and face • types of 3D shapes (prisms, pyramids, polyhedra, cones, spheres)
39) Final Review		June 7 - June 13	<ul style="list-style-type: none"> • Review of Chapters 5 through 9