



Agenda of Board of Education Special Meeting

The Board of Directors Girard School District

A Board of Education Special Meeting of the Board of Directors of Girard School District will be held Monday, September 14, 2026, beginning at 5:45 PM Girard High School Auditorium, 1135 Lake Street, Girard, PA 16417.

1. Meeting Opening

- 1.1. Call to Order
- 1.2. Pledge to the Flag
- 1.3. Silent Meditation
- 1.4. Roll Call - Members

Description:

BOARD MEMBERS

- ___ Richard Brown, President
- ___ Mike McConnell, Vice President
- ___ Joseph Legnasky, Treasurer
- ___ Kelly Fisher
- ___ Daniel Maher
- ___ Joseph Meka
- ___ Brady Sager
- ___ Melissa Smith

- 1.5. Notation of Items to be added, deleted, or corrected to the Agenda

- 1.6. Agenda Approval

Recommended Motion(s):

Resolution to approve the Agenda as presented.

2. Recognition of Visitors

- 2.1. Recognition of Visitors

3. Public Comments

3.1. Public Comments

4. **Administration**

4.1. New Board Member Interviews

4.2. _____ - Board Member Approval

Recommended Motion(s):

Resolution to appoint _____ as a School Board Director effective September 14, 2026 to December 1, 2027 to fill the vacancy caused by the resignation of Sean Dunn (Roll Call Vote)

4.3. _____ - Oath of Office

Description:

To be read by District Notary:

The Oath of Office shall be administered by the District Notary

"I, _____, do solemnly swear that I will support, obey, and defend the constitution of the United States and the constitution of this Commonwealth, and that I will discharge the duties of my office with fidelity."

4.4. 2026-2027 Girard School District Calendar Revision

Recommended Motion(s):

Resolution to approve a revision to the 2026-2027 Girard School District Calendar, as presented.

4.5. Approval of Curriculum Revisions

Recommended Motion(s):

Resolution to approve the K-4 Mathematics Curriculum revisions, as presented.

5. **Business, Finance & Property**

6. **Personnel**

6.1. Erin Pizzo - Director of Pupil Personnel Services

Recommended Motion(s):

Resolution to appoint Erin Pizzo as Director of Pupil Personnel Services, effective retroactive to September 1, 2026, with benefits in accordance with the Administrative Compensation Plan A, Act 93 Agreement, at a salary of \$100,550. (Vacancy due to the voluntary transfer of Greg Proper.)

6.2. Matthew Michaels - Appoint Weightlifting Supervisor

Recommended Motion(s):

Resolution to appoint Matthew Michaels as Weightlifting Supervisor for the 2026-2027 school year at a prorated salary of \$2,665.84 effective retroactive to September 9, 2026. (Vacancy is due to the resignation of Hunter Wade.)

6.3. ESS Northeast, LLC., Emergency Permit Substitutes for 2026-2027 School Year

Recommended Motion(s):

Resolution to approve the following ESS Northeast, LLC., Emergency Permit Substitutes for the 2026-2027 School Year:

Description:

John Susnik - retroactive to August 19, 2026

7. **New Business**

7.1. New Business

8. Students

9. Consent Items

10. Correspondence

10.1. Other

11. Adjournment

11.1. Adjournment

Recommended Motion(s):

Resolution for Adjournment.

Girard School District School Calendar 2026-2027 School Year

August 2026

M	T	W	Th	F
3	4	5	6	7
10	11	12	13	14
17	18	19	20	21
24	25	26	27	28
31				

19, 21	Teacher In Service
20	Teacher Clerical Day (12:30-6:00) Meet the Teacher Night (6-8pm)
24	First Student Day
6	Student Days
9	Teacher Days

Snow Make-up Days:	
February 15, 2027	
April 1, 2027	
April 2, 2027	

September 2026

M	T	W	Th	F
	1	2	3	4
7	8	9	10	11
14	15	16	17	18
21	22	23	24	25
28	29	30		

7	No School-Labor Day
21	Student Days
21	Teacher Days

February 2027

M	T	W	Th	F
1	2	3	4	5
8	9	10	11	12
15	16	17	18	19
22	23	24	25	26

11	2 hour early dismissal (Professional Development K-12)
12	Teacher In Service(No Students)
15	No School-Presidents' Day
18	Student Days
19	Teacher Days

October 2026

M	T	W	Th	F
			1	2
5	6	7	8	9
12	13	14	15	16
19	20	21	22	23
26	27	28	29	30

12	RCIS -Teacher In- Service
13	2 hour early dismissal (Professional Development K-12)
26	End of the First Quarter (44)
21	Student Days
22	Teacher Days

March 2027

M	T	W	Th	F
1	2	3	4	5
8	9	10	11	12
15	16	17	18	19
22	23	24	25	26
29	30	31		

12	Teacher In Service(No Students)
24	End of Third Quarter (43)
25-31	No School Spring Break
17	Student Days
18	Teacher Days

November 2026

M	T	W	Th	F
2	3	4	5	6
9	10	11	12	13
16	17	18	19	20
23	24	25	26	27
30				

5	Parent Teacher Conferences K-12 (12-7:30pm)
6	Parent Teacher Conferences K-6 Professional Development 7-12
16	2 hour early dismissal (Professional Development K-12)
25-30	Thanksgiving Break
15	Student Days
17	Teacher Days

April 2027

M	T	W	Th	F
			1	2
5	6	7	8	9
12	13	14	15	16
19	20	21	22	23
26	27	28	29	30

1-2	No School Spring Break
19	2 hour early dismissal (Professional Development K-12)
26-30	PSSA ELA
20	Student Days
20	Teacher Days

December 2026

M	T	W	Th	F
	1	2	3	4
7	8	9	10	11
14	15	16	17	18
21	22	23	24	25
28	29	30	31	

7-18	Winter Keystone Exams
21-31	No School - Winter Break
14	Student Days
14	Teacher Days

May 2027

M	T	W	Th	F
3	4	5	6	7
10	11	12	13	14
17	18	19	20	21
24	25	26	27	28
31				

3-14	PSSA Math & Science (10-14 makeups)
17-28	Spring Keystone Exams
28, 31	No School-Memorial Day Break
19	Student Days
19	Teacher Days

January 2027

M	T	W	Th	F
				1
4	5	6	7	8
11	12	13	14	15
18	19	20	21	22
25	26	27	28	29

1	No School - Winter Break
4-15	Winter Keystone Exams
15	End of Second Quarter (43)
18	No School-MLK Day
19	Teacher Clerical Day (No Students)
18	Student Days
19	Teacher Days

June 2027

M	T	W	Th	F
	1	2	3	4
7	8	9	10	11
14	15	16	17	18
21	22	23	24	25
28	29	30		

8	Last Student Day/GRADUATION/End of Quarter (45) 2 hour early dismissal
9	Teacher Clerical Day (No Students)
6	Student Days
7	Teacher Days

Total Days
175 Total Student Days
185 Total Teacher Days

Board First Reading: December 15, 2025
Board Second Reading and Approval: January 26, 2026
Revised: September 14, 2026 (Early Dismissal/Professional Development Days Added)



Kindergarten: **Mathematics**

Quarter 1: Curriculum & Pacing Guide

Quarter Overview

Students build the foundations of counting and cardinality. They classify and sort objects into categories, count objects accurately using one-to-one correspondence, and answer "how many" questions for sets of up to 10 objects.

Students learn to write numerals and create matching sets, decompose numbers into smaller parts, and analyze the counting sequence to notice its patterns. Throughout the quarter, students use hands-on tools, counting strategies, and mathematical language to explain their thinking.

Essential Questions

- How can we sort and classify objects into groups?
- What does it mean to count objects accurately?
- How do we know "how many" are in a group of objects?
- Why does each object get counted only one time?
- How can we write numerals to match a group of objects?
- How can a number be broken apart into smaller parts?
- What patterns do we notice in the counting sequence?
- How can we compare groups of objects by counting them?
- How can strategies and tools help us count larger groups of objects?
- How can we show and explain our mathematical thinking?

Standards for Mathematical Practice (Used Throughout)

- MP1 — Make sense of problems and persevere in solving them
- MP2 — Reason abstractly and quantitatively
- MP3 — Construct viable arguments and critique the reasoning of others
- MP4 — Model with mathematics
- MP5 — Use appropriate tools strategically
- MP6 — Attend to precision
- MP7 — Look for and make use of structure
- MP8 — Look for and express regularity in repeated reasoning

Kindergarten Quarter 1: *I can statements* (Weeks 2–9)

- I can sort objects into groups and count how many are in each group.
 - I can count objects one at a time, touching each object only once.
 - I can tell how many objects are in a group of up to 5 without recounting.
 - I can write numerals and match them to a group of objects.
 - I can tell how many objects are in a group of up to 10.
 - I can create a set of objects to match a written number.
 - I can break a number apart into two smaller parts.
 - I can notice patterns when I count.
 - I can compare two groups of objects and tell which has more or fewer.
 - I can explain my counting and sorting thinking using math words.
-

Module 1 Reference — Counting & Cardinality (Weeks 2–9)

Standards Addressed

- CC.2.1.K.A.1 — Number & Operations: know number names and the count sequence
- CC.2.1.K.A.2 — Number & Operations: count to tell the number of objects
- CC.2.4.K.A.4 — Data & Measurement: classify objects into categories, count the objects in each category, and sort the categories

Vocabulary

Content: count, enough, line, number, number sentence, sort, strategy

Academic: explain, notice, record, solve

Materials Needed

Chart paper · Counting collections · Crayons · Cups · Dry erase markers · 5-group cards · Bingo boards · Hide-Zero cards (student set) · Hide-Zero cards (teacher set) · Match cards · Numeral cards · Sticky notes · Paper plates · Pencils · Whiteboards · Whiteboard erasers · Projector · Puppet · Plastic resealable bags · Sorting bags · Teddy bear counters · Two-color beans · Unifix cubes · White paper · Number gloves

Curriculum Resources

Eureka Math² Module 1 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](#) · Student Learn Book — Module 1 / Teach Book

9-Week Pacing at a Glance

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
1	Getting Started	Establish Routines & Classroom Expectations	No new content lessons this week	Set up math routines, tools, and norms for the year
2	Module 1	Counting & Cardinality	Lessons 1–5: Classify to Make Categories and Count Shape Formation	How can we sort and classify objects into groups?
3	Module 1	Counting & Cardinality	Lessons 6–9: Answer How Many Questions with Up to 5 Objects Number Formation 1–5	How do we know "how many" are in a group of up to 5 objects?
4	Module 1	Counting & Cardinality	Lessons 10–13: Write Numerals and Create Sets of Up to 5 Objects Number Formation 6–10	How can we write numerals to match a group of objects?
5	Module 1	Counting & Cardinality	Lessons 14–18: Decompose Numbers Number Formation 6–10	How can a number be broken apart into smaller parts?
6	Module 1	Counting & Cardinality	Lessons 19–23: Answer How Many Questions with Up to 10 Objects	How do we know "how many" are in a group of up to 10 objects?
7	Module 1	Counting & Cardinality	Lessons 24–28: Write Numerals and Create Sets of Up to 10 Objects	How can we create a set of objects to match a written numeral?
8	Module 1	Counting & Cardinality	Lessons 29–33: Analyze the Count Sequence	What patterns do we notice in the counting sequence?
9	Module 1	Module 1 Assessment	Module 1: Assessment	How can we show what we know about counting and cardinality?

Differentiation Strategies by Topic

Quick supports and extensions teachers can pull from during each instructional block. Use alongside small-group time, centers, or independent work.

Topic	Support (Below Level)	Extension (Above Level)
Classify to Make Categories and Count (Week 2)	Start with sorting by one obvious attribute (color or size) using real objects; count each group aloud together, touching each item once.	Sort the same set of objects by more than one attribute and compare the resulting groups; explain why a chosen category makes sense.
Answer How Many Questions — Up to 5 (Week 3)	Use a 5-group card or ten-frame to organize objects while counting; practice touching and moving each object as it's counted.	Count a scattered (unorganized) group of up to 5 objects without rearranging them; state the total without recounting.
Write Numerals and Create Sets — Up to 5 (Week 4)	Trace numerals using a multisensory approach (sand, finger paint, textured cards) before writing with a pencil; match a numeral card to a matching set of objects.	Write the numeral independently and create a matching set using two different types of objects; explain how the numeral and set match.
Decompose Numbers (Week 5)	Use two-color counters or a puppet-and-hide game to physically show a number split into two parts, saying each part aloud.	Find more than one way to decompose the same number and record each way; explain how the two parts relate to the whole.
Answer How Many Questions — Up to 10 (Week 6)	Use a ten-frame or 5-group cards to organize larger counts; count in smaller chunks (count to 5, then continue).	Count a scattered group of up to 10 objects without reorganizing; compare two counted groups and say which has more or fewer.
Write Numerals and Create Sets — Up to 10 (Week 7)	Continue multisensory numeral tracing for 6–10; use a numeral card matched to a pre-made set before creating an original set.	Write numerals 6–10 independently and create matching sets using varied objects; order a set of numeral cards from least to greatest.
Analyze the Count Sequence (Week 8)	Practice the count sequence with a visual number line or number gloves, pointing to each number as it's said.	Start counting from a number other than 1 (e.g., "start at 4 and keep going"); notice and describe the pattern in the count sequence.

General Differentiation Toolkit

Support Strategies (Below Level / Emerging)

- Use hands-on manipulatives (counters, unifix cubes, 5-group cards) before moving to pictures or numerals alone.
- Pre-teach vocabulary — especially new terms like "sort," "decompose," and "count sequence" — using visuals, gestures, and real objects before the whole-group lesson.
- Keep numbers within a smaller, familiar range (e.g., within 5) while a skill is new, then extend toward 10 once secure.
- Model one-to-one correspondence explicitly by touching and moving each object as it's counted.
- Pair with a peer partner for turn-and-talk and modeling during hands-on counting or sorting tasks.
- Use multisensory approaches (sand, textured letters, large motor movements) for numeral formation practice.

Extension Strategies (Above Level)

- Extend counting tasks beyond 10, or introduce counting on from a number other than 1.
- Challenge students to decompose a number in more than one way and compare the different combinations.
- Ask students to explain their counting or sorting strategy in their own words to a partner or the class.
- Have students create their own sorting categories and justify their choices.
- Have students count and compare two groups of objects to determine which has more, fewer, or the same amount.

Multilingual Learner / Language Support

- Pair new vocabulary (e.g., "sort," "count," "enough," number words) with gestures, visuals, and native-language cognates where possible.
- Use simple sentence frames for explaining thinking: "There are ____." or "I sorted by ____."
- Allow students to show understanding through pointing, physical sorting, or counting aloud before requiring a full verbal explanation.
- Preview key vocabulary and counting routines in a small group before they're introduced in the whole-class lesson.



Kindergarten: **Mathematics**

Quarter 2: Curriculum & Pacing Guide

Quarter Overview

Students identify, describe, analyze, and name two-dimensional and three-dimensional shapes, then use shapes to construct new shapes. They explore attributes such as sides, corners, and faces to compare and classify shapes.

Students then compare measurable attributes of objects — height, length, and weight — using direct comparison and simple tools. They compare sets of objects and numbers within 10 to determine which is greater, fewer, or the same. Throughout the quarter, students use hands-on tools and mathematical language to explain their comparisons.

Essential Questions

- How can we identify and describe two-dimensional shapes?
- How can we identify and describe three-dimensional shapes?
- How are two-dimensional and three-dimensional shapes alike and different?
- How can we use shapes to build or construct new shapes?
- How can we compare the height or length of two objects?
- How can we compare the weight of two objects?
- What words help us describe and compare measurable attributes?
- How can we compare two sets of objects to determine which has more, fewer, or the same?
- How can we compare two numbers within 10?
- How can we explain our thinking when comparing objects or sets?

Standards for Mathematical Practice (Used Throughout)

- MP1 — Make sense of problems and persevere in solving them
- MP2 — Reason abstractly and quantitatively
- MP3 — Construct viable arguments and critique the reasoning of others
- MP4 — Model with mathematics
- MP5 — Use appropriate tools strategically
- MP6 — Attend to precision
- MP7 — Look for and make use of structure
- MP8 — Look for and express regularity in repeated reasoning

Kindergarten Quarter 2: *I can statements* (10-18 Weeks)

- I can name and describe flat (2D) shapes like circles, squares, triangles, rectangles, and hexagons.
 - I can name and describe solid (3D) shapes like spheres, cubes, cones, cylinders, and pyramids.
 - I can tell how 2D and 3D shapes are alike and different.
 - I can use shapes to build new shapes.
 - I can compare the height or length of two objects and say which is taller/shorter or longer/shorter.
 - I can compare the weight of two objects and say which is heavier or lighter.
 - I can use math words like taller, shorter, heavier, and lighter to describe and compare objects.
 - I can compare two sets of objects and say which has more, fewer, or the same amount.
 - I can compare two numbers within 10 and say which is greater or less.
 - I can explain my thinking when I compare objects or sets.
-

Module 2 Reference — Two-Dimensional and Three-Dimensional Shapes (Weeks 10–13)

Standards Addressed

- CC.2.3.K.A.1 — Geometry: identify, describe, and compare two- and three-dimensional shapes
- CC.2.3.K.A.2 — Geometry: analyze, compare, create, and compose two- and three-dimensional shapes

Vocabulary

Content: circle, cone, cube, cylinder, flat shape, hexagon, pyramid, rectangle, rectangular prism, solid shape, sphere, square, rectangle, triangle

Familiar: count, number, sort

Academic: describe

Materials Needed

20-bead Rekenrek · Ball, box, brown paper bags · Crayons, dry erase markers · Folders, pencils · Whiteboards, scissors, paper, yarn · Dot dice, 2D shapes · Geometry cards · Hide-Zero cards, match cards · Pattern block puzzles · Geometric solids set · Modeling clay ·

Plastic pattern block sets · Puppet, smiley face stickers · Plastic coffee stirrers, beans · Two-color counters, unifix cubes

Curriculum Resources

Eureka Math² Module 2 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](#) · Student Learn Book — Module 2 / Teach Book

Module 3 Reference — Comparison (Weeks 14–18)

Standards Addressed

- CC.2.4.K.A.1 — Data & Measurement: describe and compare measurable attributes of objects (length, height, weight)
- CC.2.4.K.A.4 — Data & Measurement: classify objects into categories, count the objects in each category, and sort the categories
- CC.2.1.K.A.3 — Number & Operations: compare numbers of objects and compare written numerals

Vocabulary

Content: equal, fewer, greater, heavy, height, length, less, light, long, more, short, tall, weight

Familiar: circle, cone, cube, flat shape, hexagon, rectangle, square, triangle (shape review), count, enough, line, number, sort, strategy

Academic: no new academic vocabulary introduced

Materials Needed

100-bead Rekenrek · Construction paper squares, chart paper, colored pencils · Bags of units (blocks, pennies, beans) · Bell, bracelet, containers, cookies, cotton balls · Counting collections, crayons, dot dice, dough or clay · Glue sticks, paper bags, paper clips, paper plates · Rocks, scales, scissors · Hide-Zero cards · Plastic tubs, plastic bags · Dry erase markers, whiteboards, whiteboard erasers · Pencils, pattern blocks

Curriculum Resources

Eureka Math² Module 3 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](#) · Student Learn Book — Module 3 / Teach Book

9-Week Pacing at a Glance

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
10	Module 2	Two-Dimensional and Three-Dimensional Shapes	Lessons 1–5: Analyze and Name Two-Dimensional Shapes	<i>How can we identify and describe two-dimensional shapes?</i>
11	Module 2	Two-Dimensional and Three-Dimensional Shapes	Lessons 6–9: Analyze and Name Three-Dimensional Shapes	<i>How can we identify and describe three-dimensional shapes? How are two-dimensional and three-dimensional shapes alike and different?</i>
12	Module 2	Two-Dimensional and Three-Dimensional Shapes	Lessons 10–14: Construct Shapes	<i>How can we use shapes to build or construct new shapes?</i>
13	Module 2	Construct Shapes Module 2 Assessment	Lessons 15–16: Construct Shapes Module 2 Assessment	<i>How can we describe a shape we built using its attributes?</i>
14	Module 3	Comparison	Lessons 1–5: Compare Heights and Lengths	<i>How can we compare the height or length of two objects?</i>
15	Module 3	Comparison	Lesson 6: Compare Heights and Lengths Lessons 7–10: Compare Weights	<i>How can we compare the weight of two objects?</i>
16	Module 3	Comparison	Lesson 11: Compare Weights Lessons 12–14: Compare Sets Within 10	<i>What words help us describe and compare measurable attributes?</i>
17	Module 3	Comparison	Lessons 15–17: Compare Sets Within 10 Lessons 18–19: Compare Numbers Within 10	<i>How can we compare two sets of objects to determine which has more, fewer, or the same?</i>
18	Module 3	Compare Numbers Within 10 Module 3 Assessment	Lessons 20–22: Compare Numbers Within 10 Module 3 Assessment	<i>How can we compare two numbers within 10?</i>

Differentiation Strategies by Topic

Quick supports and extensions teachers can pull from during each instructional block. Use alongside small-group time, centers, or independent work.

Topic	Support (Below Level)	Extension (Above Level)
Analyze and Name Two-Dimensional Shapes (Week 10)	Sort real flat shapes by one attribute (number of sides) using hands-on shape sets; name each shape aloud together as it's sorted.	Identify the same shape in different sizes, orientations, and colors; describe a shape using more than one attribute (e.g., "3 sides, all straight").
Analyze and Name Three-Dimensional Shapes (Week 11)	Handle real solid shapes (ball, box, cone) and match them to everyday objects around the room; name each shape together.	Compare a 2D shape to the matching face of a 3D shape (e.g., square face of a cube); sort solid shapes by whether they roll, stack, or slide.
Construct Shapes (Weeks 12–13)	Use pattern blocks or modeling clay to build a shape with a model to copy; count the sides or corners together as it's built.	Build a shape from a verbal description without a model (e.g., "build a shape with 4 equal sides"); combine smaller shapes to construct a new, more complex shape.
Compare Heights and Lengths (Weeks 14–15)	Compare two objects directly by lining them up side by side; use the sentence frame: "___ is taller/shorter than ___."	Compare three or more objects and order them from shortest to tallest; use a third object (like string) to compare two objects indirectly.
Compare Weights (Weeks 15–16)	Hold two objects, one in each hand, to physically feel which is heavier before using a balance scale to confirm.	Use a balance scale to compare and order three or more objects by weight; explain how the scale shows which object is heavier.
Compare Sets Within 10 (Weeks 16–17)	Line up two sets of objects one-to-one (matching) to see which has more, fewer, or the same amount, without counting first.	Compare two sets by counting each set and comparing the numbers; create a set with a specific number more or fewer than a given set.
Compare Numbers Within 10 (Weeks 17–18)	Use numeral cards alongside matching sets of objects to compare two numbers concretely before comparing numerals alone.	Compare two numerals without objects and justify which is greater or less; order a set of numeral cards from least to greatest.

General Differentiation Toolkit

Support Strategies (Below Level / Emerging)

- Use real objects and hands-on manipulatives (shape sets, solids, balance scales) before moving to pictures or abstract comparisons.
- Pre-teach vocabulary — especially comparison words like "taller," "heavier," and "fewer" — using visuals, gestures, and real objects before the whole-group lesson.
- Model direct comparison (lining objects up side by side) before introducing indirect comparison with a third object.
- Provide a model or example to copy before asking students to build or compare independently.
- Pair with a peer partner for turn-and-talk and modeling during hands-on shape or comparison tasks.
- Use consistent sentence frames repeatedly so students become comfortable with comparison language.

Extension Strategies (Above Level)

- Challenge students to compare three or more objects and order them (shortest to tallest, lightest to heaviest).
- Ask students to describe a shape or comparison using more than one attribute at a time.
- Have students build a shape or set from a verbal description without a model to copy.
- Encourage students to explain their comparison reasoning to a partner or the class in their own words.
- Have students create their own comparison problems for a partner to solve.

Multilingual Learner / Language Support

- Pair new vocabulary (e.g., shape names, "compare," "taller," "heavier") with gestures, visuals, and native-language cognates where possible.
- Use simple, consistent sentence frames: "___ is taller than ___." or "There are more ___ than ___."
- Allow students to show understanding through pointing, physical comparison, or hands-on sorting before requiring a full verbal explanation.
- Preview key vocabulary and comparison routines in a small group before they're introduced in the whole-class lesson.



Kindergarten: **Mathematics**

Quarter 3: Curriculum & Pacing Guide

Quarter Overview

Students explore how numbers can be composed (put together) and decomposed (broken apart) into smaller parts. They record their thinking using objects, pictures, and number sentences, and apply this understanding to solve story problems.

Students then represent addition as putting together and adding to, and represent subtraction as taking apart and taking from, using objects, drawings, and equations. Throughout the quarter, students make sense of problems before solving them and use tools and strategies to find and explain their answers.

Essential Questions

- How can a number be composed (put together) from smaller parts?
- How can a number be decomposed (broken apart) into smaller parts?
- How can we record composition and decomposition using pictures, numbers, or equations?
- How can story problems help us understand composing and decomposing numbers?
- What does it mean to add two groups together?
- What does it mean to subtract or take away from a group?
- How can we represent addition and subtraction using objects, pictures, or equations?
- How can we make sense of a story problem before solving it?
- How can tools and strategies help us solve addition and subtraction problems?
- How can we explain our thinking when solving a problem?

Standards for Mathematical Practice (Used Throughout)

- MP1 — Make sense of problems and persevere in solving them
- MP2 — Reason abstractly and quantitatively
- MP3 — Construct viable arguments and critique the reasoning of others
- MP4 — Model with mathematics
- MP5 — Use appropriate tools strategically
- MP6 — Attend to precision
- MP7 — Look for and make use of structure
- MP8 — Look for and express regularity in repeated reasoning

Kindergarten Quarter 3: *I can statements* (19-23 Weeks)

- I can put two parts together to make a whole number (compose).
 - I can break a number apart into smaller parts (decompose).
 - I can record my composing and decomposing using pictures, numbers, or equations.
 - I can solve story problems about putting numbers together and breaking them apart.
 - I can add two groups together to find the total.
 - I can subtract, or take away, from a group to find what's left.
 - I can show addition using objects, pictures, or a number sentence.
 - I can show subtraction using objects, pictures, or a number sentence.
 - I can make sense of a story problem before I solve it.
 - I can explain my thinking when I solve a problem.
-

Module 4 Reference — Composition & Decomposition (Weeks 19–23)

Standards Addressed

- CC.2.3.K.A.2 — Geometry: analyze, compare, create, and compose two- and three-dimensional shapes
- CC.2.2.K.A.1 — Algebraic Concepts: understand addition as putting together and adding to; understand subtraction as taking apart and taking from

Vocabulary

Content: part, partners to x, total, whole

Familiar: circle, cone, count, cube, enough, equal, fewer, greater, hexagon, less, long, more, number, number sentence, rectangle, short, sort, sphere, square, strategy, tall, triangle

Academic: no new academic vocabulary introduced

Materials Needed

100-bead demonstration rekenrek · Chart paper, tablet · Colorful masking tape or ribbon · Glue sticks · Paper plates · Whiteboards · Plastic pattern blocks · Scissors · Sorting bags · Counters · Unifix cubes · Crayons, dry erase markers, pencils

Curriculum Resources

Eureka Math² Module 4 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](#) · Student Learn Book — Module 4 / Teach Book

Module 5 Reference — Addition & Subtraction (Weeks 23–27)

Standards Addressed

- CC.2.2.K.A.1 — Algebraic Concepts: understand addition as putting together and adding to; understand subtraction as taking apart and taking from

Vocabulary

Content: addition, equals, minus, pattern, plus, subtraction

Familiar: count, equal, fewer, greater, hexagon, length, less, line, long, more, number, number sentence, part, partners to x, sort strategy, total, triangle, whole

Academic: organize

Materials Needed

100-bead Rekenrek · 10-sided dice (set of 24) · Cardstock, construction paper · Assorted containers · Counting collections · Crayons, dry erase markers · Geometric solids set (40 pieces) · Paper plates · Paper, pencils · Pennies · Pattern blocks · Scissors · Sentence strips · Sticky notes · Unifix cubes · Workmat, counters · Cups · Dot dice (set of 12) · Whiteboards

Curriculum Resources

Eureka Math² Module 5 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](#) · Student Learn Book — Module 5 / Teach Book

9-Week Pacing at a Glance

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
19	Module 4	Composition & Decomposition	Lessons 1–3: Explore Composition and Decomposition	<i>How can a number be composed (put together) from smaller parts?</i>
20	Module 4	Composition & Decomposition	Lesson 4: Explore Composition and Decomposition Lessons 5–8: Record Composition and Decomposition	<i>How can a number be decomposed (broken apart) into smaller parts?</i>
21	Module 4	Composition & Decomposition	Lessons 9–10: Record Composition and Decomposition Lessons 11–13: Model Composition and Decomposition in Story Problems	<i>How can we record composition and decomposition using pictures, numbers, or equations?</i>
22	Module 4	Composition & Decomposition	Lessons 14–18: Model Composition and Decomposition in Story Problems	<i>How can story problems help us understand composing and decomposing numbers?</i>
23	Module 4 → 5	Module 4 Assessment; Begin Addition & Subtraction	Module 4 Assessment Lessons 1–3: Represent Addition	<i>What does it mean to add two groups together?</i>
24	Module 5	Addition & Subtraction	Lessons 4–7: Represent Addition	<i>How can we represent addition using objects, pictures, or equations?</i>
25	Module 5	Addition & Subtraction	Lessons 8–12: Represent Subtraction	<i>What does it mean to subtract or take away from a group?</i>
26	Module 5	Addition & Subtraction	Lessons 13–14: Represent Subtraction Lessons 15–17: Make Sense of Problems	<i>How can we represent subtraction using objects, pictures, or equations?</i>
27	Module 5	Make Sense of Problems	Lessons 18–22: Make Sense of Problems	<i>How can we make sense of a story problem before solving it?</i>

Differentiation Strategies by Topic

Quick supports and extensions teachers can pull from during each instructional block. Use alongside small-group time, centers, or independent work.

Topic	Support (Below Level)	Extension (Above Level)
Explore Composition and Decomposition (Weeks 19–20)	Use two-color counters or a puppet-and-hide game to physically show a number split into two parts, saying each part aloud.	Find more than one way to compose or decompose the same number and compare the different combinations.
Record Composition and Decomposition (Weeks 20–21)	Match a physical part-part-whole model (built with objects) to a matching picture or number sentence before writing independently.	Record multiple compositions/decompositions of the same number using numbers or simple equations without a physical model.
Model Composition/Decomposition in Story Problems (Weeks 21–22)	Act out the story problem with real objects or a puppet before drawing or recording it; use a sentence frame: "There are ___ in all. ___ and ___ make ___."	Solve story problems with the total or one part unknown; create an original composition/decomposition story problem for a partner.
Represent Addition (Weeks 23–24)	Use objects to physically join two groups together, counting the total aloud; connect the action to the word "plus."	Represent the same addition situation with objects, a drawing, and a number sentence; solve addition problems with the total unknown in different positions.
Represent Subtraction (Weeks 25–26)	Use objects to physically remove some from a group, counting what's left aloud; connect the action to the word "minus" or "take away."	Represent the same subtraction situation with objects, a drawing, and a number sentence; solve subtraction problems with the missing part unknown.
Make Sense of Problems (Weeks 26–27)	Use the Read–Draw–Write process with a sentence frame and teacher support at each step; act out simple one-step problems with objects.	Solve problems independently by choosing a strategy (objects, drawing, or mental math); explain the strategy chosen and why it worked.

General Differentiation Toolkit

Support Strategies (Below Level / Emerging)

- Use hands-on manipulatives (counters, unifix cubes, part-part-whole mats) before moving to pictures or number sentences alone.
- Pre-teach vocabulary — especially new terms like "part," "whole," "plus," and "minus" — using visuals, gestures, and real objects before the whole-group lesson.
- Keep numbers within a smaller, familiar range (e.g., within 5) while a skill is new, then extend toward 10 once secure.
- Act out story problems with real objects or a puppet before asking students to solve using pictures or equations.
- Pair with a peer partner for turn-and-talk and modeling during hands-on addition or subtraction tasks.
- Use consistent sentence frames repeatedly so students become comfortable with the language of composing, decomposing, adding, and subtracting.

Extension Strategies (Above Level)

- Challenge students to find more than one way to compose or decompose the same number.
- Have students solve problems with the total or a missing part unknown, rather than always the total.
- Ask students to explain their strategy for solving a problem in their own words to a partner or the class.
- Have students create their own addition, subtraction, or composition/decomposition story problems for a partner to solve.
- Encourage students to represent the same problem more than one way (objects, drawing, equation) and compare.

Multilingual Learner / Language Support

- Pair new vocabulary (e.g., "part," "whole," "plus," "minus," "total") with gestures, visuals, and native-language cognates where possible.
- Use simple, consistent sentence frames: "___ and ___ make ___." or "There were ___. ___ went away. Now there are ___."
- Allow students to show understanding through acting out, physical manipulation, or drawing before requiring a full verbal or written explanation.
- Preview key vocabulary and story-problem routines in a small group before they're introduced in the whole-class lesson.



Kindergarten: **Mathematics**

Quarter 4: Curriculum & Pacing Guide

Quarter Overview

Students wrap up their addition and subtraction work by using patterns and structure to solve problems more efficiently. They then build the foundation for place value by counting and writing teen numbers (11–19) and understanding that each teen number is composed of a ten and some extra ones.

Students extend their counting sequence to 100 by ones and by tens, and compare numbers to determine which is greater or less. Throughout the quarter, students use hands-on tools and mathematical language to explain their counting, composing, and comparing.

Essential Questions

- How can we use patterns and structure to help us solve problems?
- How can we count and write numbers from 11 to 19?
- How are teen numbers made of a ten and some more ones?
- How can we compose and decompose teen numbers?
- How can we count to 100 by ones and by tens?
- What patterns do we notice when counting to 100?
- How can we compare two numbers to determine which is greater or less?
- How can tools and strategies help us count and compare larger numbers?
- How can we show what we know about counting and place value?

Standards for Mathematical Practice (Used Throughout)

- MP1 — Make sense of problems and persevere in solving them
- MP2 — Reason abstractly and quantitatively
- MP3 — Construct viable arguments and critique the reasoning of others
- MP4 — Model with mathematics
- MP5 — Use appropriate tools strategically
- MP6 — Attend to precision
- MP7 — Look for and make use of structure
- MP8 — Look for and express regularity in repeated reasoning

Kindergarten Quarter 4: *I can statements* (28-36 Weeks)

- I can use patterns and structure to help me solve addition and subtraction problems.
 - I can count and write numbers from 11 to 19.
 - I can show that a teen number is a group of ten and some extra ones.
 - I can compose and decompose teen numbers (put them together and break them apart).
 - I can count to 100 by ones.
 - I can count to 100 by tens.
 - I can notice patterns when I count to 100.
 - I can compare two numbers and tell which is greater or less.
 - I can use tools and strategies to help me count and compare bigger numbers.
 - I can show what I know about counting and place value.
-

Module 5 Reference — Addition & Subtraction, continued (Week 28)

Standards Addressed

- CC.2.1.K.A.1 — Number & Operations: know number names and the count sequence
- CC.2.2.K.A.1 — Algebraic Concepts: understand addition as putting together and adding to; understand subtraction as taking apart and taking from
- CC.2.3.K.A.2 — Geometry: analyze, compare, create, and compose two- and three-dimensional shapes

Vocabulary, Materials & Resources

See the Q3 Pacing Guide — this is the tail end of Module 5 and uses the same vocabulary and materials introduced there.

Eureka Math² Module 5 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](#) · Student Learn Book — Module 5 / Teach Book

Module 6 Reference — Place Value Foundations (Weeks 29–34)

Standards Addressed

- CC.2.1.K.B.1 — Number & Operations: compose and decompose numbers 11–19 into ten ones and some further ones
- CC.2.1.K.A.1 — Number & Operations: know number names and the count sequence; count to 100 by ones and by tens
- CC.2.1.K.A.3 — Number & Operations: compare numbers of objects and compare written numerals

Vocabulary

Content: ones

Familiar: addition, count, equals, fewer, greater, length, less, line, long, minus, more, number, number sentence, part, partners to x, pattern, plus, short, sort, strategy, subtraction, total, whole

Academic: no new academic vocabulary introduced

Materials Needed

10-sided dice (set of 24) · 20-bead rekenrek · 100-bead rekenrek · Boxes · Chart paper, tablet · Clear cups (12) · Counting collections · Crayons · Dot dice (12 sets) · Dry erase markers · Glue sticks · Index cards · Marbles, pom-poms · Paper clips · Pennies · Pencils · Whiteboards, whiteboard erasers · Pipe cleaners · Pony beads · Resealable bags · Scissors

Curriculum Resources

Eureka Math² Module 6 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](#) · Student Learn Book — Module 6 / Teach Book

9-Week Pacing at a Glance

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
28	Module 5	Addition & Subtraction, continued Module 5 Assessment	Lessons 23–27: Make Use of Structure Module 5 Assessment	<i>How can we use patterns and structure to help us solve problems?</i>
29	Module 6	Place Value Foundations	Lessons 1–3: Count and Write Teen Numbers	<i>How can we count and write numbers from 11 to 19?</i>
30	Module 6	Place Value Foundations	Lessons 4–6: Count and Write Teen Numbers Lessons 7–8: Compose and Decompose Teen Numbers	<i>How are teen numbers made of a ten and some more ones?</i>
31	Module 6	Place Value Foundations	Lessons 9–12: Compose and Decompose Teen Numbers	<i>How can we compose and decompose teen numbers?</i>
32	Module 6	Place Value Foundations	Lessons 13–17: Count to 100	<i>How can we count to 100 by ones and by tens?</i>
33	Module 6	Place Value Foundations	Lessons 18–20: Count to 100 Lessons 21–22: Compare	<i>What patterns do we notice when counting to 100?</i> <i>How can we compare two numbers to determine which is greater or less?</i>
34	Module 6	Compare Module 6 Assessment	Lessons 23–24: Compare Module 6 Assessment	<i>How can we compare two numbers to determine which is greater or less?</i>
35	—	End of Year Assessments and Checklists	End of Year Assessments and Checklists	<i>How can we show what we know about counting and place value?</i>

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
36	—	End of Year Assessments and Checklists	End of Year Assessments and Checklists	<i>How can we show what we know about counting and place value?</i>

Differentiation Strategies by Topic

Quick supports and extensions teachers can pull from during each instructional block. Use alongside small-group time, centers, or independent work.

Topic	Support (Below Level)	Extension (Above Level)
Make Use of Structure (Week 28)	Provide a familiar tool (rekenrek, ten-frame) and model how noticing a pattern (like groups of 5 or 10) makes counting or solving easier.	Ask students to describe a pattern they notice in their own words and use it to solve a new problem without teacher modeling.
Count and Write Teen Numbers (Weeks 29–30)	Use a ten-frame filled with 10 counters plus loose counters for the extra ones; trace teen numerals using a multisensory approach before writing independently.	Write teen numerals independently and build the matching set using a ten and extra ones without a ten-frame prompt.
Compose and Decompose Teen Numbers (Weeks 30–31)	Use a rekenrek or ten-frame to physically show "10 and some more" for a teen number, saying the parts aloud ("10 and 4 is 14").	Compose and decompose several teen numbers and explain the pattern ("every teen number is a ten and some ones") in their own words.
Count to 100 (Weeks 32–33)	Use a number line or hundreds chart with landmark numbers (10, 20, 30...) highlighted; count with a partner in smaller chunks.	Count to 100 by tens independently; start counting from a number other than 1 and continue to 100.
Compare (Weeks 33–34)	Use two sets of objects or two numeral cards with matching sets to compare concretely before comparing numerals alone.	Compare two-digit numbers using only numerals (without objects) and justify which is greater or less using place value language.

General Differentiation Toolkit

Support Strategies (Below Level / Emerging)

- Use hands-on manipulatives (rekenreks, ten-frames, counters) before moving to numerals or pictures alone.
- Pre-teach vocabulary — especially new terms like "ones," "teen number," and "compare" — using visuals, gestures, and real objects before the whole-group lesson.
- Keep the count sequence within a smaller, familiar range (e.g., to 20) while a skill is new, then extend toward 100 once secure.
- Model "a ten and some more" explicitly using a ten-frame or rekenrek before asking students to compose/decompose independently.
- Pair with a peer partner for turn-and-talk and modeling during hands-on counting or comparing tasks.
- Use consistent visual supports (number lines, hundreds charts) that stay posted and available throughout the quarter.

Extension Strategies (Above Level)

- Challenge students to count to 100 by tens independently, or start counting from a number other than 1.
- Have students compose and decompose teen numbers in more than one context (objects, drawings, equations) and explain the pattern.
- Ask students to compare two-digit numbers using place value language without objects.
- Encourage students to explain their counting or comparing strategy in their own words to a partner or the class.
- Have students create their own counting or comparison challenges for a partner to solve.

Multilingual Learner / Language Support

- Pair new vocabulary (e.g., "ones," "compare," "greater," "fewer") with gestures, visuals, and native-language cognates where possible.
- Use simple, consistent sentence frames: "___ is a ten and ___ more." or "___ is greater than ___."
- Allow students to show understanding through pointing, physical counting, or hands-on comparison before requiring a full verbal explanation.
- Preview key vocabulary and counting routines in a small group before they're introduced in the whole-class lesson.



Grade 1: **Mathematics**

Quarter 1: Curriculum & Pacing Guide

Quarter Overview

Students build foundational number sense and develop efficient strategies for addition and subtraction within 20. They collect, organize, represent, and compare data using graphs, tally charts, and comparison symbols; progress from counting all to counting on; and use part-whole relationships to compose and decompose numbers and explore different ways to make the same total.

Students then connect addition and subtraction using objects, number bonds, number paths, drawings, and equations to solve problems with unknowns in different positions — emphasizing mathematical reasoning, the meaning of the equal sign, and the Read-Draw-Write process.

Essential Questions

- How can we organize and represent data so that it is easy to understand?
- How can graphs help us answer questions and compare quantities?
- How can we determine whether one number is greater than, less than, or equal to another?
- How does counting on help us add more efficiently?
- How can a number be composed and decomposed in different ways?
- How can we find an unknown part or total?
- How can we choose an efficient strategy to solve a problem?
- How can different expressions represent the same total?
- What does the equal sign tell us?
- How are addition and subtraction related?
- How can addition help us solve subtraction problems?
- How can number bonds, number paths, objects, and drawings represent our thinking?
- How can we explain and justify our mathematical thinking?

Standards for Mathematical Practice (Used Throughout)

- MP1 — Make sense of problems and persevere in solving them
- MP2 — Reason abstractly and quantitatively
- MP3 — Construct viable arguments and critique the reasoning of others
- MP4 — Model with mathematics
- MP5 — Use appropriate tools strategically

- MP6 — Attend to precision
- MP7 — Look for and make use of structure
- MP8 — Look for and express regularity in repeated reasoning

First Grade Quarter 1: *I can statements* (1-9 Weeks)

- I can collect and organize data using graphs and tally charts.
 - I can use a graph to answer questions and compare amounts.
 - I can tell whether a number is greater than, less than, or equal to another number.
 - I can count on from a number to add more efficiently.
 - I can make the same total in different ways.
 - I can choose an efficient strategy to solve a math problem.
 - I can explain what the equal sign means.
 - I can show how addition and subtraction are related.
 - I can use addition to help me solve subtraction problems.
 - I can use number bonds, number paths, objects, or drawings to show my thinking and find an unknown part or total.
-

Module 1 Reference — Counting, Comparison, and Addition (Weeks 2–7)

Standards Addressed — Module 1

- CC.2.1.1.B.2 — Number & Operations: extend counting sequence, count on, compare numbers
- CC.2.4.1.A.4 — Data & Measurement: organize, represent, and interpret data
- CC.2.2.1.A.2 — Algebraic Concepts: apply properties of operations; add and subtract within 20

Vocabulary

Content: doubles, expression, graph, hour hand, minute hand, o'clock, unknown

Familiar: compare, is greater than, is more than, number path, organize, partners, sort, tally mark, total

Academic: convince, represent

Materials Needed

100 bead rekenrek · 20 bead rekenrek · Centimeter cubes (500 ct) · Craft sticks · Crayons, markers, pencils · Cups · Demonstration clock · Dot dice (12) · Dry erase markers · Number cubes (set of 12) · Chart paper · Sticky notes · Whiteboards & erasers · Plastic pattern blocks · Two-color counters · Unifix cubes

Curriculum Resources

Eureka Math² Module 1 Manual · greatminds.org website · [Happy Numbers](#) · Student Learn Book — Module 1 / Teach Book · Eureka Math² addition expression cards (13 decks) · Eureka Math² centimeter number paths · Eureka Math² hide zero cards (set of 12) · Eureka Math² large number paths

Module 2 Reference — Addition and Subtraction Relationships (Weeks 7–9)

Standards Addressed — Module 2

- CC.2.2.1.A.1 — Algebraic Concepts: represent and solve problems involving addition and subtraction within 20

Vocabulary

Content: equation

Familiar: compare, double, efficient, equal, expression, false, graph, minus, part, related, represent, subtract, symbol, take away, total, true, unknown

Academic: combine

Materials Needed

Chart paper · Craft sticks · Crayons, dry erase markers · Pencils, markers · Pennies · Whiteboards · Sticky notes · Unifix cubes · Counters

Curriculum Resources

Eureka Math² Module 2 Manual · greatminds.org website · [Happy Numbers](#) · Student Learn Book — Module 2 / Teach Book · Eureka Math² addition expression cards (13 decks) · Eureka Math² centimeter number paths · Eureka Math² hide zero cards (set of 12 & demonstration set)

9-Week Pacing at a Glance

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
1	Getting Started	Establish Routines & Classroom Expectations	No new content lessons this week	Set up math routines, tools, and norms for the year
2	Module 1	Counting, Comparison, and Addition	Lessons 1–5: Count and Compare with Data	How can we organize and represent data so it's easy to understand?
3	Module 1	Counting, Comparison, and Addition	Lesson 6: Count and Compare with Data Lessons 7–10: Count on from a Visible Part	How can graphs help us answer questions and compare quantities? How does counting on help us add more efficiently?
4	Module 1	Counting, Comparison, and Addition	Lessons 11–12: Count on from a Visible Part Lessons 13–15: Count on to Add	How can we determine whether one number is greater than, less than, or equal to another?
5	Module 1	Counting, Comparison, and Addition	Lessons 16–17: Count on to Add Lessons 18–20: Make the Same Total in Varied Ways	How can a number be composed and decomposed in different ways?
6	Module 1	Counting, Comparison, and Addition	Lessons 21–25: Make the Same Total in Varied Ways	How can we choose an efficient strategy to solve a problem?
7	Module 1 → 2	Module 1 Assessment; Begin Addition & Subtraction Relationships	Module 1 Assessment Lessons 1–2: Reason About Take From Situations	What does the equal sign tell us?
8	Module 2	Addition and Subtraction Relationships	Lessons 3–4: Reason About Take From Situations Lessons 5–7: Relate and Distinguish Addition and Subtraction	How are addition and subtraction related? How can addition help us solve subtraction problems?
9	Module 2	Addition and Subtraction Relationships	Lessons 8–12: Find an Unknown Part in Change Unknown Problems	How can we find an unknown part or total? How can number bonds, number paths, objects, and drawings represent our thinking?

Differentiation Strategies by Topic

Quick supports and extensions teachers can pull from during each instructional block. Use alongside small-group time, centers, or independent work.

Topic	Support (Below Level)	Extension (Above Level)
Count & Compare with Data (Weeks 2–3)	Use real objects to sort/count before graphing; limit categories to 2; count with 1:1 correspondence support (touch each object).	Compare 3+ categories at once; write comparison statements using "greater than / less than / equal to" with numerals.
Count On from a Visible Part (Weeks 3–4)	Keep the visible/known part small (1–3); use a number path with the starting number marked; count on with fingers or counters alongside.	Count on from larger known parts; count on mentally without touching objects; count on within 20 starting from either addend.
Count On to Add (Weeks 4–5)	Model "start at the bigger number" explicitly with a rekenrek; use a number path with hops drawn in.	Solve missing-addend problems ($5 + \underline{\quad} = 9$) using count-on; explain why counting on from the larger number is more efficient.
Make the Same Total in Varied Ways (Weeks 5–6)	Use a fixed total (e.g., 10) with two-color counters to show one decomposition at a time; record with a simple number bond template.	Find all possible ways to make a total and organize them in a chart looking for patterns; connect to related equations.
Reason About Take From Situations (Weeks 7–8)	Act out the story with real objects before drawing; use a sentence frame: "There were _____. _____ went away. Now there are _____."	Write the matching equation with the unknown in different positions; create an original take-from story problem.
Relate & Distinguish Addition/Subtraction (Week 8)	Use a number bond to show the same three numbers can make an addition AND subtraction fact; keep numbers within 10.	Generate a full fact family for a given number bond; explain in writing how addition and subtraction "undo" each other.
Find an Unknown Part — Change Unknown (Week 9)	Use physical objects and cover the unknown part with a cup; guide with Read–Draw–Write step by step.	Solve change-unknown problems with the unknown in the starting position; write and solve original problems for a partner.

General Differentiation Toolkit

Support Strategies (Below Level / Emerging)

- Use concrete manipulatives before moving to pictorial (number path, drawings) or abstract (equations) representations — follow the concrete–pictorial–abstract sequence.
- Pre-teach vocabulary using visuals and sentence frames (e.g., "___ is greater than ___.") before the whole-group lesson.
- Provide a number path or ten-frame at the student's desk for reference during independent work.
- Reduce the number range (work within 5 or 10 before moving to 20) while keeping the same strategy focus.
- Pair with a peer partner for turn-and-talk and modeling during Read–Draw–Write tasks.
- Chunk multi-step word problems into smaller steps with checkpoints.

Extension Strategies (Above Level)

- Increase the number range beyond 20 or introduce two-step problems with the same structure.
- Ask students to create their own word problems for a partner to solve, matching a given equation.
- Challenge students to find more than one strategy or representation (number bond AND number path AND equation) for the same problem and compare efficiency.
- Introduce related but unfamiliar structures (e.g., compare problems) once core unknown-position problems are mastered.
- Have students justify their reasoning in writing or teach the strategy to a small group.

Multilingual Learner / Language Support

- Pair new academic vocabulary (e.g., "combine," "convince," "represent") with gestures, visuals, and native-language cognates where possible.
- Use sentence frames for explaining reasoning: "I know ___ because ___."
- Allow students to show understanding through drawings or manipulatives before requiring verbal or written explanation.
- Preview key vocabulary in a small group before the whole-class lesson introduces it.



Grade 1: **Mathematics**

Quarter 2: Curriculum & Pacing Guide

Quarter Overview

Students deepen their understanding of addition and subtraction within 20 and recognize the relationship between the two operations. They use objects, drawings, number bonds, number paths, and equations to represent part-whole relationships and solve problems with unknowns in different positions.

Students progress from counting strategies to more efficient methods based on the properties of operations and the structure of ten — grouping and decomposing addends to make ten, using related addition facts to subtract, and applying strategies such as taking from ten, counting on, and counting back. Throughout the units, students select, represent, and explain strategies for solving one- and two-step problems.

Essential Questions

- How are addition and subtraction related?
- How can addition help us solve a subtraction problem?
- How can we use part-whole relationships to find an unknown number?
- How can objects, drawings, number bonds, and number paths represent our thinking?
- How does making ten help us add and subtract more efficiently?
- How can numbers be composed and decomposed to create an easier problem?
- How can we change the order or grouping of addends without changing the total?
- How can related facts help us solve addition and subtraction problems?
- When is it helpful to count on, count back, make ten, or take from ten?
- How can we determine which strategy is most efficient for a problem?
- How can equations represent an unknown part, change, or total?
- How can we use addition and subtraction to solve real-world problems?
- How can we explain and justify why a strategy works?

Standards for Mathematical Practice (Used Throughout)

- MP1 — Make sense of problems and persevere in solving them
- MP2 — Reason abstractly and quantitatively
- MP3 — Construct viable arguments and critique the reasoning of others
- MP4 — Model with mathematics
- MP5 — Use appropriate tools strategically
- MP6 — Attend to precision
- MP7 — Look for and make use of structure
- MP8 — Look for and express regularity in repeated reasoning

First Grade Quarter 2: *I can statements* (10-18 Weeks)

- I can find an unknown part using addition and subtraction.
- I can use related addition and subtraction facts to solve problems.
- I can represent and solve comparison problems (finding how many more or fewer).
- I can use equations to show an unknown part, change, or total.
- I can change the order or grouping of addends without changing the total.
- I can make ten to help me add more easily.
- I can use a number path or number line to solve addition problems.
- I can use ten as a group (unit) to help me add or subtract.
- I can take from ten to help me subtract more easily.
- I can explain why a strategy works to solve a problem.

Module 2 Reference — Addition and Subtraction Relationships, continued (Weeks 10–12)

Standards Addressed

- CC.2.2.1.A.1 — Algebraic Concepts: represent and solve problems involving addition and subtraction within 20
- CC.2.2.1.A.2 — Algebraic Concepts: apply properties of operations as strategies to add and subtract
- CC.2.4.1.A.4 — Data & Measurement: organize, represent, and interpret data

Vocabulary, Materials & Resources

See the Q1 Pacing Guide — Module 2 continues directly from Quarter 1 and uses the same vocabulary, materials, and curriculum resources.

Module 3 Reference — Properties of Operations to Make Easier Problems (Weeks 13–18)

Standards Addressed

- CC.2.2.1.A.1 — Algebraic Concepts: represent and solve problems involving addition and subtraction within 20
- CC.2.2.1.A.2 — Algebraic Concepts: apply properties of operations as strategies to add and subtract
- CC.2.1.1.B.2 — Number & Operations: extend counting sequence, count on, compare numbers

Vocabulary

Content: addend, ten, unit

Familiar: compare, double, efficient, equal, equation, expression, graph, minus, number path, part, partners, related, represent, subtract, take away, total, TRUE, unknown

Academic: no new academic vocabulary introduced this quarter

Materials Needed

10-sided dice (set of 24) · 20 bead rekenrek · Centimeter cubes (500 ct) · Chart paper · Craft sticks · Cups · Dot dice (set of 12) · Dry erase markers · Counters · Paper clips · Pencils · Whiteboards & erasers · Plastic pattern blocks · Sticky notes · Two-color counters · Unifix cubes

Curriculum Resources

Eureka Math² Module 3 Manual · greatminds.org website · [Happy Numbers](#) · Student Learn Book — Module 3 / Teach Book · Eureka Math² Hide Zero cards (student set) · Eureka Math² Hide Zero cards (demonstration set)

9-Week Pacing at a Glance

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
10	Module 2	Addition and Subtraction Relationships	Lesson 13: Find an Unknown Part in Change Unknown Problems Lessons 14–17: Find an Unknown Part by Using Addition and Subtraction	<i>How can we use part-whole relationships to find an unknown number? How can objects, drawings, number bonds, and number paths represent our thinking?</i>
11	Module 2	Addition and Subtraction Relationships	Lessons 18–19: Find an Unknown Part by Using Addition and Subtraction Lessons 20–22: Represent and Solve Comparison Problems	<i>How can related facts help us solve addition and subtraction problems? How can equations represent an unknown part, change, or total?</i>
12	Module 2	Represent & Solve Comparison Problems • Module 2 Assessment	Lesson 23: Represent and Solve Comparison Problems Module 2 Assessment	<i>How can we use addition and subtraction to solve real-world problems?</i>
13	Module 3	Properties of Operations to Make Easier Problems	Lessons 1–4: Make Easier Problems with Three Addends	<i>How can we change the order or grouping of addends without changing the total?</i>
14	Module 3	Properties of Operations to Make Easier Problems	Lessons 5–8: Make Easier Problems to Add	<i>How does making ten help us add and subtract more efficiently?</i>
15	Module 3	Properties of Operations to Make Easier Problems	Lesson 9: Make Easier Problems to Add Lessons 10–12: Make Easier Addition Problems with a Linear Model	<i>How can numbers be composed and decomposed to create an easier problem?</i>
16	Module 3	Properties of Operations to Make Easier Problems	Lessons 13–14: Make Easier Addition Problems with a Linear Model	<i>How can we determine which strategy is most efficient for a problem?</i>
17	Module 3	Properties of Operations to Make Easier Problems	Lessons 15–19: Reason about Ten as a Unit to Add or Subtract	<i>When is it helpful to count on, count back, make ten, or take from ten?</i>
18	Module 3	Properties of Operations to Make Easier Problems	Lessons 20–25: Make Easier Problems to Subtract	<i>How can we explain and justify why a strategy works?</i>

Differentiation Strategies by Topic

Quick supports and extensions teachers can pull from during each instructional block. Use alongside small-group time, centers, or independent work.

Topic	Support (Below Level)	Extension (Above Level)
Find an Unknown Part — Change Unknown (Week 10)	Use physical objects and cover the unknown part with a cup; walk through Read–Draw–Write step by step with a sentence frame.	Solve with the unknown in the starting position; write an original change-unknown story problem for a partner.
Find an Unknown Part Using Addition & Subtraction (Weeks 10–11)	Use a number bond with two knowns filled in; model "think addition to subtract" with counters before moving to equations.	Solve using both an addition and a subtraction equation for the same problem and explain why both work.
Represent & Solve Comparison Problems (Weeks 11–12)	Use two rows of objects lined up to physically show "more" and "fewer"; sentence frame: "___ has ___ more than ___."	Solve comparison problems where the difference (not a total) is unknown; write the matching equation independently.
Make Easier Problems with Three Addends (Week 13)	Provide three separate small groups of objects; look for a ten or a double as a first step, modeled by the teacher.	Compare multiple groupings of the same three addends and justify which is most efficient and why.
Make Easier Problems to Add — Make Ten (Weeks 14–15)	Use a ten-frame and counters to physically "move" pieces to make ten before recording the equation.	Make ten mentally without a ten-frame; explain the make-ten strategy in writing using a number bond.
Linear Model / Number Path Addition (Weeks 15–16)	Pre-draw the number path with hops started; keep totals within 10 before extending to 20.	Solve using a blank number line with no pre-marked jumps; compare number-path and mental-math efficiency.
Reason about Ten as a Unit (Week 17)	Use ten-sticks (bundled unifix cubes) to show ten as one group; connect to hide zero cards for tens/ones.	Add/subtract multiples of ten from a two-digit-like total; explain "ten more/ten less" reasoning.
Make Easier Problems to Subtract — Take From Ten (Week 18)	Model taking from a physical ten-frame first, then recording the two subtraction steps.	Choose between counting back and taking from ten based on the numbers given, and justify the choice.

General Differentiation Toolkit

Support Strategies (Below Level / Emerging)

- Use concrete manipulatives (counters, ten-frames, rekenrek) before moving to pictorial (number path, drawings) or abstract (equations) representations.
- Pre-teach vocabulary using visuals and sentence frames before the whole-group lesson.
- Keep numbers within 10 while a strategy is new, then extend to 20 once the strategy is secure.
- Provide a completed worked example alongside a matching blank template for guided practice.
- Pair with a peer partner for turn-and-talk and modeling during Read–Draw–Write tasks.
- Break two-step or comparison problems into smaller, sequenced steps with checkpoints.

Extension Strategies (Above Level)

- Increase the number range beyond 20 or introduce a second step to a familiar problem type.
- Ask students to justify in writing why one strategy (make ten, count on, take from ten) is more efficient than another for a given problem.
- Have students create original word problems for a partner that require a specific strategy.
- Challenge students to solve the same problem two different ways and compare the equations.
- Have students teach a strategy to a small group or lead a turn-and-talk.

Multilingual Learner / Language Support

- Pair vocabulary (e.g., "efficient," "related," "compare") with gestures, visuals, and native-language cognates where possible.
- Use sentence frames for explaining reasoning: "I used ___ because ___."
- Allow students to show understanding through drawings or manipulatives before requiring a verbal or written explanation.
- Preview key vocabulary in a small group before it's introduced in the whole-class lesson.



Grade 1: **Mathematics**

Quarter 3: Curriculum & Pacing Guide

Quarter Overview

Students develop increasingly efficient strategies for addition and subtraction while strengthening their understanding of ten as a foundational unit. They use properties of operations, related facts, and strategies such as making ten and taking from ten to solve problems within 20.

Students apply these understandings to compare, order, and measure lengths using centimeters and solve measurement comparison problems. They then extend their place-value understanding to two-digit numbers by composing and decomposing tens and ones, representing and comparing numbers in multiple ways, and using place-value strategies to add and subtract. Throughout the units, students use concrete models, drawings, number paths, number bonds, equations, and word problems to represent and explain their reasoning.

Essential Questions

- How can we compose and decompose numbers to create easier problems?
- How does making ten help us add and subtract more efficiently?
- How can related addition and subtraction facts help us solve problems?
- How can the order or grouping of addends change without changing the total?
- How can we determine which addition or subtraction strategy is most efficient?
- How can we compare and order objects by length?
- How can another object help us compare two lengths indirectly?
- How can models, drawings, and equations communicate our mathematical thinking?
- What does it mean to measure accurately?
- How can centimeters help us describe and compare lengths?
- How can addition and subtraction help us solve measurement problems?
- How are two-digit numbers composed of tens and ones?
- How can the same number be represented in different ways?
- How does the position of a digit determine its value?
- How can place value help us add and subtract?
- How can we explain and verify that a solution is reasonable?

Standards for Mathematical Practice (Used Throughout)

- MP1 — Make sense of problems and persevere in solving them
- MP2 — Reason abstractly and quantitatively
- MP3 — Construct viable arguments and critique the reasoning of others
- MP4 — Model with mathematics
- MP5 — Use appropriate tools strategically
- MP6 — Attend to precision
- MP7 — Look for and make use of structure
- MP8 — Look for and express regularity in repeated reasoning

First Grade Quarter 3: *I can statements* (19-27 Weeks)

- I can choose the most efficient strategy to add or subtract.
 - I can compare and order objects by length, directly and indirectly.
 - I can measure length using centimeters.
 - I can solve word problems that compare measurements.
 - I can group objects into tens and ones.
 - I can show the same two-digit number in different ways using tens and ones.
 - I can use place value to compare two numbers.
 - I can add a one-digit number and a two-digit number.
 - I can add and subtract tens.
 - I can explain and check that my answer makes sense.
-

Module 3 Reference — Properties of Operations, continued (Week 19)

Standards Addressed

- CC.2.2.1.A.1 — Algebraic Concepts: represent and solve problems involving addition and subtraction within 20
- CC.2.2.1.A.2 — Algebraic Concepts: apply properties of operations as strategies to add and subtract

Vocabulary, Materials & Resources

See the Q2 Pacing Guide — Module 3 continues directly from Quarter 2 and uses the same vocabulary, materials, and curriculum resources.

Module 4 Reference — Comparison and Composition of Length Measurements (Weeks 20–23)

Standards Addressed

- CC.2.4.1.A.1 — Data & Measurement: order lengths and measure using non-standard and standard (centimeter) units
- CC.2.4.1.A.2 — Data & Measurement: express the length of an object as a whole number of length units
- CC.2.1.1.B.2 — Number & Operations: extend counting sequence, count on, compare numbers (applied to measurement comparison)

Vocabulary

Content: length, measure

Familiar: compare, efficient, equal, false, fewer, greater, less, minus, number path, number sentence, one(s), order, part, represent, subtract, take away, ten(s), total, true, unit, unknown

Academic: no new academic vocabulary introduced this quarter

Materials Needed

10-inch paper plates · 10-sided dice (set of 24) · 100 bead rekenrek · Base 10 rods (set of 50) · Chart paper · Craft sticks · Crayons, dry erase markers · Glue sticks, scissors · Markers, pencils · Whiteboards & erasers · Plastic pattern blocks · Sticky notes, string, resealable plastic bags

Curriculum Resources

Eureka Math² Module 4 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](#) · Student Learn Book — Module 4 / Teach Book · Eureka Math² Owl Posters (set of 7)

Module 5 Reference — Addition & Subtraction with Place Value (Weeks 23–27)

Standards Addressed

- CC.2.1.1.B.1 — Number & Operations: extend the counting sequence to read and write numerals
- CC.2.1.1.B.2 — Number & Operations: count on, compare numbers, and understand place value
- CC.2.1.1.B.3 — Number & Operations: use place value understanding and properties of operations to add and subtract

Vocabulary

Content: digit, compose, place, value

Familiar: addend, compare, efficient, equal, equation, expression, false, fewer, greater, less, minus, number sentence, one(s), part, partners, represent, subtract, take away, ten(s), total, true, unit, unknown

Academic: no new academic vocabulary introduced this quarter

Materials Needed

10-sided dice (set of 24) · 100 bead rekenrek · Base 10 rods (set of 50) · Centimeter cubes (set of 500) · Chart paper · Counters · Counting collections · Crayons, dry erase markers · Dimes, pennies · Dot dice (set of 12) · Markers, pencils · Whiteboards & erasers · Scissors · Unifix cubes · Work mats

Curriculum Resources

Eureka Math² Module 5 Manual · [greatminds.com](https://www.greatminds.com) website · Happy Numbers · Student Learn Book — Module 5 / Teach Book · Eureka Math² Hide Zero cards (basic student set of 12) · Eureka Math² Hide Zero cards (demonstration set) · Eureka Math² Hide Zero cards (student extension set of 12) · Eureka Math² Numeral Cards (set of 12 decks)

9-Week Pacing at a Glance

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
19	Module 3	Properties of Operations to Make Easier Problems • Module 3 Assessment	Lesson 26: Make Easier Problems to Subtract Module 3 Assessment	<i>How can we determine which addition or subtraction strategy is most efficient?</i>
20	Module 4	Comparison and Composition of Length Measurements	Lessons 1–3: Direct and Indirect Length Comparison Lesson 4: Length Measurement and Comparison	<i>What does it mean to measure accurately? How can another object help us compare two lengths indirectly?</i>
21	Module 4	Comparison and Composition of Length Measurements	Lessons 5–9: Length Measurement and Comparison	<i>How can centimeters help us describe and compare lengths? How can we compare and order objects by length?</i>
22	Module 4	Comparison and Composition of Length Measurements	Lessons 10–14: Comparison Word Problems with Measurement	<i>How can addition and subtraction help us solve measurement problems? How can models, drawings, and equations communicate our mathematical thinking?</i>
23	Module 4 → 5	Module 4 Assessment; Begin Addition & Subtraction (Place Value)	Module 4 Assessment Lessons 1–2: Grouping Units in Tens and Ones	<i>How are two-digit numbers composed of tens and ones?</i>
24	Module 5	Addition & Subtraction (Place Value)	Lessons 3–6: Grouping Units in Tens and Ones	<i>How can the same number be represented in different ways?</i>
25	Module 5	Addition & Subtraction (Place Value)	Lessons 7–9: Use Place Value to Compare Lessons 10–11: Addition of One-Digit and Two-Digit Numbers	<i>How does the position of a digit determine its value?</i>
26	Module 5	Addition & Subtraction (Place Value)	Lessons 12–14: Addition of One-Digit and Two-Digit Numbers Lessons 15–16: Addition and Subtraction of Tens	<i>How can place value help us add and subtract?</i>

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
27	Module 5	Addition & Subtraction (Place Value)	Lessons 17–20: Addition and Subtraction of Tens	How can we explain and verify that a solution is reasonable?

Differentiation Strategies by Topic

Quick supports and extensions teachers can pull from during each instructional block. Use alongside small-group time, centers, or independent work.

Topic	Support (Below Level)	Extension (Above Level)
Make Easier Problems to Subtract (Week 19)	Model taking from a physical ten-frame first, then recording the two subtraction steps; keep within 20 with a visible ten.	Choose between counting back and taking from ten based on the numbers given, and justify the choice in writing.
Direct & Indirect Length Comparison (Week 20)	Start with direct comparison only (lining objects up side by side); use a single, obvious third object (string) to model indirect comparison.	Compare three or more objects indirectly using a single measuring tool; explain why the third object must stay the same length throughout.
Length Measurement & Comparison — Centimeters (Weeks 20–21)	Use centimeter cubes lined end-to-end with no gaps as a physical model before introducing a ruler; count cubes aloud together.	Measure using a centimeter ruler with standard notation; compare measurements of several objects and order them from shortest to longest.
Comparison Word Problems with Measurement (Week 22)	Act out the measuring story with real objects; use a sentence frame: "___ is ___ centimeters longer/shorter than ___."	Solve two-step measurement comparison problems; write an original measurement word problem for a partner to solve.
Grouping Units in Tens and Ones (Weeks 23–24)	Use base-10 rods and cubes to physically group 10 ones into a ten before recording the number; keep numbers within 20 before extending further.	Represent the same two-digit number multiple ways (e.g., 3 tens 4 ones vs. 2 tens 14 ones) and explain why both are valid.
Use Place Value to Compare (Week 25)	Line up base-10 blocks for two numbers side by side, comparing tens first, then ones, with teacher modeling each step.	Compare numbers using only place-value language ("3 tens is greater than 2 tens, so...") without manipulatives; order a set of numbers.
Addition of One-Digit and Two-Digit Numbers (Weeks 25–26)	Use base-10 blocks to add ones first, regrouping only when needed, with teacher guidance at each step.	Add two-digit and one-digit numbers mentally using place-value reasoning; explain when regrouping is and isn't necessary.
Addition and Subtraction of Tens (Weeks 26–27)	Use ten-sticks to add/subtract whole tens (e.g., $30 + 20$) by counting groups of ten rather than individual ones.	Add and subtract multiples of ten mentally; connect to related basic facts ($3 + 2 = 5$, so $30 + 20 = 50$) and explain the pattern.

General Differentiation Toolkit

Support Strategies (Below Level / Emerging)

- Use concrete manipulatives (base-10 blocks, centimeter cubes, string) before moving to pictorial or abstract representations.
- Pre-teach vocabulary — especially new place-value terms like "digit," "compose," and "value" — using visuals before the whole-group lesson.
- Keep numbers within 20 while a strategy or measurement skill is new, then extend to larger two-digit numbers once secure.
- Provide a completed worked example alongside a matching blank template for guided practice.
- Pair with a peer partner for turn-and-talk and modeling during hands-on measurement or place-value tasks.
- Break multi-step comparison or place-value problems into smaller, sequenced steps with checkpoints.

Extension Strategies (Above Level)

- Extend measurement tasks to comparing more than two objects, or introduce a second unit of measurement to compare.
- Challenge students to represent the same two-digit number in multiple tens/ones combinations and explain why each works.
- Ask students to justify in writing why one addition/subtraction strategy is more efficient than another for a given problem.
- Have students create original word problems (measurement or place value) for a partner to solve.
- Have students teach a strategy to a small group or lead a turn-and-talk explaining their reasoning.

Multilingual Learner / Language Support

- Pair new vocabulary (e.g., "compose," "digit," "length," "measure") with gestures, visuals, and native-language cognates where possible.
- Use sentence frames for explaining reasoning: "___ is longer/shorter than ___ because ___." or "The digit in the tens place is ___ because ___."
- Allow students to show understanding through drawings, manipulatives, or physical measurement before requiring a verbal or written explanation.
- Preview key vocabulary in a small group before it's introduced in the whole-class lesson.



Grade 1: **Mathematics**

Quarter 4: Curriculum & Pacing Guide

Quarter Overview

Students deepen their understanding of place value by composing, decomposing, representing, and comparing two-digit numbers as groups of tens and ones. They use place-value strategies and properties of operations to add and subtract, solve varied word problems, and extend their counting and number representation skills to 120.

Students also identify and classify two- and three-dimensional shapes by their defining attributes, compose new shapes, and partition shapes into halves and fourths. They connect equal shares to telling time to the hour and half hour while using models, drawings, and equations to communicate their reasoning.

Essential Questions

- How are two-digit numbers composed of tens and ones?
- How can the same number be represented in different ways?
- How does the position of a digit determine its value?
- How can place value help us compare two-digit numbers?
- How can place value help us add and subtract?
- What patterns can help us count, read, and write numbers to 120?
- How can we compose and decompose numbers to make calculations easier?
- How are addition and subtraction related?
- How can we find an unknown number in a word problem?
- How can we select an efficient strategy for solving a problem?
- How can defining attributes help us identify and classify shapes?
- How can two and three-dimensional shapes be alike and different?
- How can smaller shapes be combined to create new shapes?
- How can a whole be partitioned into equal halves?
- How does the number of equal shares affect the size of each share?
- How are halves connected to telling time to the half hour?

Standards for Mathematical Practice (Used Throughout)

- MP1 — Make sense of problems and persevere in solving them
- MP2 — Reason abstractly and quantitatively
- MP3 — Construct viable arguments and critique the reasoning of others
- MP4 — Model with mathematics
- MP5 — Use appropriate tools strategically
- MP6 — Attend to precision
- MP7 — Look for and make use of structure
- MP8 — Look for and express regularity in repeated reasoning

First Grade Quarter 4: *I can statements* (28-36 Weeks)

- I can add two-digit numbers using place value.
 - I can identify and describe shapes by their attributes (sides, corners, flat or solid).
 - I can combine smaller shapes to build a new shape.
 - I can partition a shape into halves and fourths.
 - I can explain how the number of equal shares affects the size of each share.
 - I can tell time to the hour and half hour.
 - I can count, read, and write numbers to 120.
 - I can find an unknown number in a word problem.
 - I can choose an efficient strategy to solve a problem.
 - I can add and subtract two-digit numbers up to 100.
-

Module 5 Reference — Addition & Subtraction, continued (Week 28)

Standards Addressed

- CC.2.1.1.B.3 —
- Number & Operations: use place value understanding and properties of operations to add and subtract two-digit numbers

Vocabulary, Materials & Resources

See the Q3 Pacing Guide — Module 5 continues directly from Quarter 3 and uses the same vocabulary, materials, and curriculum resources.

Module 6 Reference — Shapes, Place Value to 120, and Extending Addition (Weeks 29–36)

Standards Addressed

- CC.2.3.1.A.1 — Geometry: distinguish, build, and compose shapes based on their defining attributes
- CC.2.3.1.A.2 — Geometry: partition circles and rectangles into two and four equal shares (halves, fourths)
- CC.2.4.1.A.2 — Data & Measurement: tell and write time to the hour and half hour
- CC.2.1.1.B.1 — Number & Operations: extend the counting sequence to read and write numbers to 120
- CC.2.1.1.B.3 — Number & Operations: use place value understanding to add and subtract, extending to 100
- CC.2.2.1.A.1 — Algebraic Concepts: represent and solve problems involving addition and subtraction within 20

Vocabulary

Content: composed shape, fourth, fourths, fourth of, half, halves, half of, half past, parallel, partition, quarter, quarter of, rhombus, square corner, trapezoid

Familiar: circle, compose, cone, cube, cylinder, equal, flat shape, hexagon, hour hand, length, minute hand, part, pyramid, rectangle, rectangular prism, solid shape, sphere, square, triangle, whole

Academic: sketch

Materials Needed

100 bead rekenrek · Balls · Centimeter cubes · Chart paper · Craft sticks · Crayons · Demonstration clock · Dry erase markers · Geometric solids with nets (set of 12) · Glue · Pencils · Whiteboard & erasers · Plastic pattern blocks · Scissors · Sticky notes

Curriculum Resources

Eureka Math² Module 6 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](https://www.happy-numbers.com) · Student Learn Book — Module 6 / Teach Book · Eureka Math² Numeral Cards (decks)

9-Week Pacing at a Glance

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
28	Module 5	Addition & Subtraction, continued	Lessons 21–25: Addition of Two-Digit Numbers	<i>How can place value help us add and subtract?</i>
29	Module 5 → 6	Module 5 Assessment; Begin Attributes of Shapes	Module 5 Assessment Lessons 1–5: Attributes of Shapes	<i>How can defining attributes help us identify and classify shapes?</i>
30	Module 6, Pt 1	Attributes of Shapes	Lessons 6–9: Composition of Shapes Lesson 10: Halves and Fourths	<i>How can smaller shapes be combined to create new shapes? How can a whole be partitioned into equal halves?</i>
31	Module 6, Pt 1	Attributes of Shapes	Lessons 11–15: Halves and Fourths	<i>How does the number of equal shares affect the size of each share? How are halves connected to telling time to the half hour?</i>
32	Module 6, Pt 2	Advancing Place Value, Addition, and Subtraction	Lessons 16–19: Count and Represent Numbers Beyond 100 Lesson 20: Deepening Problem Solving	<i>What patterns can help us count, read, and write numbers to 120?</i>
33	Module 6, Pt 2	Advancing Place Value, Addition, and Subtraction	Lessons 21–25: Deepening Problem Solving	<i>How can we find an unknown number in a word problem? How can we select an efficient strategy for solving a problem?</i>
34	Module 6, Pt 2	Advancing Place Value, Addition, and Subtraction	Lessons 26–30: Extending Addition to 100	<i>How can we compose and decompose numbers to make calculations easier?</i>
35	Module 6, Pt 2	Extending Addition to 100 • Module 6 Assessment	Lesson 31: Extending Addition to 100 Module 6 Assessment	<i>How are addition and subtraction related?</i>

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
36	—	End of Year Assessments	No new content lessons this week	Cumulative review and year-end assessment

Differentiation Strategies by Topic

Quick supports and extensions teachers can pull from during each instructional block. Use alongside small-group time, centers, or independent work.

Topic	Support (Below Level)	Extension (Above Level)
Addition of Two-Digit Numbers (Week 28)	Use base-10 blocks to add tens and ones separately, regrouping with teacher guidance; keep one addend a "friendly" multiple of ten.	Add two two-digit numbers mentally using place-value reasoning; explain when regrouping is needed and why.
Attributes of Shapes — 2D & 3D (Weeks 29–30)	Sort real objects and shape models by one attribute at a time (number of sides, flat vs. solid); use a simple attribute checklist.	Sort shapes by multiple attributes at once; explain how two shapes are alike and different using precise geometric vocabulary.
Composition of Shapes (Week 30)	Use pattern blocks to physically combine two shapes into a new one, naming the new shape together.	Combine three or more shapes to compose a new, more complex shape; sketch and label the composed shape.
Halves and Fourths / Partitioning (Weeks 30–31)	Fold or cut a physical circle/rectangle into equal parts hands-on before drawing; use the sentence frame: "This whole is divided into ___ equal parts."	Compare a half and a fourth of the same whole and explain why a fourth is smaller; connect partitioning to reading a clock face.
Count & Represent Numbers Beyond 100 (Week 32)	Use a hundreds chart or bundled ten-sticks to count forward from 100 by ones and tens with visual support.	Identify patterns in the count sequence to 120 and predict numbers without counting one by one; write numbers in expanded form.
Deepening Problem Solving (Weeks 32–33)	Use the Read–Draw–Write process with a sentence frame for each step; solve one-step problems before combining steps.	Solve two-step word problems; choose and justify the most efficient strategy in writing.
Extending Addition to 100 (Weeks 34–35)	Use base-10 blocks or a hundreds chart to add a two-digit number and a multiple of ten, modeling regrouping step by step.	Add two-digit numbers where both addends require regrouping; explain the strategy used and check reasonableness of the answer.

General Differentiation Toolkit

Support Strategies (Below Level / Emerging)

- Use concrete manipulatives (base-10 blocks, pattern blocks, geometric solids) before moving to pictorial or abstract representations.
- Pre-teach new vocabulary — especially geometry terms like "rhombus," "trapezoid," and "partition" — using visuals and real objects before the whole-group lesson.
- Keep numbers within 20–50 while a place-value strategy is new, then extend toward 100–120 once secure.
- Provide a completed worked example alongside a matching blank template for guided practice.
- Pair with a peer partner for turn-and-talk and modeling during hands-on shape or place-value tasks.
- Break two-step word problems into smaller, sequenced steps with checkpoints using Read–Draw–Write.

Extension Strategies (Above Level)

- Extend counting and place-value tasks beyond 120, or introduce three-digit numbers informally for pattern discussion.
- Challenge students to compose new shapes from three or more smaller shapes and justify their choices.
- Ask students to justify in writing why one addition strategy is more efficient than another for a given problem.
- Have students create original word problems (place value, addition, or shape-based) for a partner to solve.
- Have students teach a strategy to a small group or lead a turn-and-talk explaining their reasoning.

Multilingual Learner / Language Support

- Pair new vocabulary (e.g., "partition," "attribute," "compose," shape names) with gestures, visuals, and native-language cognates where possible.
- Use sentence frames for explaining reasoning: "This shape has ___ sides, so it is a ___." or "I partitioned the whole into ___ equal parts."
- Allow students to show understanding through drawings, manipulatives, or hands-on sorting before requiring a verbal or written explanation.
- Preview key vocabulary in a small group before it's introduced in the whole-class lesson.



Grade 2: **Mathematics**

Quarter 1: Curriculum & Pacing Guide

Quarter Overview

Students strengthen their understanding of the base-ten number system through data, measurement, and place value experiences. Students create and interpret picture and bar graphs, estimate and measure lengths using centimeters and meters, and apply addition and subtraction strategies to solve one- and two-step problems within 100.

They then extend their place value understanding to 1,000 by composing and decomposing ones, tens, and hundreds; counting by place value units; and representing and comparing three-digit numbers in standard, expanded, unit, and word forms. These foundational concepts prepare students for more complex addition and subtraction work throughout the year.

Essential Questions

- How can data be organized and represented so that it is easy to understand?
- How can graphs help us answer questions and solve problems?
- How can we estimate, measure, and compare the lengths of objects?
- How are centimeters, tens, and hundreds connected through the base ten system?
- How can numbers be composed, decomposed, and represented in different ways?
- How does the position of a digit determine its value?
- How can drawings, models, and number lines help us solve addition and subtraction problems?
- How can place value help us count and compare numbers within 1,000?
- How can we explain and justify our mathematical thinking?

Standards for Mathematical Practice (Used Throughout)

- MP1 — Make sense of problems and persevere in solving them
- MP2 — Reason abstractly and quantitatively
- MP3 — Construct viable arguments and critique the reasoning of others
- MP4 — Model with mathematics
- MP5 — Use appropriate tools strategically
- MP6 — Attend to precision
- MP7 — Look for and make use of structure
- MP8 — Look for and express regularity in repeated reasoning

Second Grade Quarter 1: *I can statements* (1-9 Weeks)

- I can organize and represent data using picture graphs and bar graphs.
- I can use a graph to answer questions and solve problems.
- I can estimate, measure, and compare the length of objects using centimeters and meters.
- I can use a ruler like a number line to solve addition and subtraction problems.
- I can understand place value units of ones, tens, and hundreds.
- I can write three-digit numbers in standard, expanded, unit, and word forms.
- I can model numbers within 1,000 using money and place value disks.
- I can compose and decompose numbers into hundreds, tens, and ones.
- I can compare two three-digit numbers using place value.
- I can explain and justify my mathematical thinking.

Module 1, Part 1 Reference — Place Value Through Metric Measurement and Data (Weeks 2–6)

Standards Addressed — Part 1

- CC.2.4.2.A.1 — Data & Measurement: measure and estimate lengths in standard units (centimeters and meters)
- CC.2.4.2.A.4 — Data & Measurement: represent and interpret data using picture graphs and bar graphs
- CC.2.4.2.A.6 — Data & Measurement: use addition and subtraction within 100 to solve length/measurement problems, including using a ruler as a number line

Vocabulary

Content: bar graph, benchmark, benchmark number, category, data, difference, estimate, key, meter, number line, scale, table, tick mark

Familiar: centimeter, compare, endpoint, equation, expression, fewer than, fewest, graph, height, how many fewer, how many more, length, length unit, measure, more than, most, picture graph, related, represent, shorter, symbol, taller, total, unknown

Academic: support

Materials Needed

Calendar time tools (bundles of 10s/100s, skip counting, telling time, odd/even numbers, money & coin talk) · 100-bead rekenrek · 8" × 2" strips of paper · Centimeter cubes · Chart paper · Color tiles · Dry erase markers · Glue sticks · Markers · Pencils · Whiteboards & erasers · Resealable plastic bags · Sticky notes · Tape · Unifix cubes · Wood rulers (inch and metric)

Curriculum Resources

Eureka Math² Module 1 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](#) · Student Learn Book — Module 1 / Teach Book · Eureka Math² 10 cm cards (set of 300) · Eureka Math²

double-sided meter stick (set of 12) · Eureka Math² measuring tape · Eureka Math² Numeral cards (set of 12)

Module 1, Part 2 Reference — Place Value, Counting, and Comparing Within 1,000 (Weeks 6–9)

Standards Addressed — Part 2

- CC.2.1.2.B.1 — Number & Operations: count within 1,000; skip-count by 5s, 10s, and 100s
- CC.2.1.2.B.2 — Number & Operations: understand place value (hundreds, tens, ones) and read/write numbers to 1,000 in standard, expanded, unit, and word forms
- CC.2.2.2.A.1 — Algebraic Concepts: use place value understanding and properties of operations to add and subtract

Vocabulary, Materials & Resources

Part 2 continues to build on Part 1's vocabulary and uses the same core materials and curriculum resources listed above (base-ten blocks, place value disks, and money manipulatives are added for this section).

9-Week Pacing at a Glance

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
1	Getting Started	Establish Routines & Classroom Expectations	No new content lessons this week	Set up math routines, tools, and norms for the year
2	Module 1, Pt 1	Place Value Through Metric Measurement and Data	Lessons 1–4: Represent Data to Solve Problems Lesson 5: Metric Measurement and Concepts About a Ruler	How can data be organized and represented so that it is easy to understand? How can graphs help us answer questions and solve problems?
3	Module 1, Pt 1	Place Value Through Metric Measurement and Data	Lessons 6–10: Metric Measurement and Concepts About a Ruler	How can we estimate, measure, and compare the lengths of objects?
4	Module 1, Pt 1	Place Value Through Metric Measurement and Data	Lessons 11–14: Estimate, Measure, and Compare Lengths	How can we estimate, measure, and compare the lengths of objects?
5	Module 1, Pt 1	Place Value Through Metric Measurement and Data	Lessons 15–19: Solve Compare Problems by Using the Ruler as a Number Line	How can drawings, models, and number lines help us solve addition and subtraction problems?
6	Module 1, Pt 1 → 2	Module 1 Part 1 Assessment; Begin Place Value, Counting & Comparing Within 1,000	Module 1 Part 1: Assessment Lessons 20–22: Understand Place Value Units	How are centimeters, tens, and hundreds connected through the base ten system?
7	Module 1, Pt 2	Place Value, Counting, and Comparing Within 1,000	Lesson 23: Understand Place Value Units Lessons 24–27: Express Three-Digit Numbers in Different Forms	How can numbers be composed, decomposed, and represented in different ways?
8	Module 1, Pt 2	Place Value, Counting, and Comparing Within 1,000	Lessons 28–30: Model Base-Ten Numbers Within 1,000 with Money Lessons 31–32: Compose and Decompose with Place Value Disks	How does the position of a digit determine its value?

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
9	Module 1, Pt 2	Place Value, Counting, and Comparing Within 1,000	Lessons 33–34: Compose and Decompose with Place Value Disks Lessons 35–36: Compare Two Three-Digit Numbers in Different Forms	<i>How can place value help us count and compare numbers within 1,000?</i>

Differentiation Strategies by Topic

Quick supports and extensions teachers can pull from during each instructional block. Use alongside small-group time, centers, or independent work.

Topic	Support (Below Level)	Extension (Above Level)
Represent Data to Solve Problems (Week 2)	Use real objects or picture cards to sort into categories before graphing; keep categories to 2–3; provide a pre-drawn graph template to fill in.	Create a graph from data students collect themselves; write and answer comparison questions using the graph ("how many more/fewer").
Metric Measurement & Concepts About a Ruler (Weeks 2–3)	Use centimeter cubes lined end-to-end before introducing a ruler; model aligning the zero mark and reading tick marks one at a time.	Measure using a meter stick for longer objects; convert between related lengths and explain the relationship between centimeters and meters.
Estimate, Measure, and Compare Lengths (Week 4)	Provide a benchmark object (e.g., a 10 cm strip) to compare against before estimating; measure with a partner to check estimates together.	Estimate and then measure several objects, ranking them by length; explain how a benchmark improves the accuracy of an estimate.
Solve Compare Problems Using the Ruler as a Number Line (Week 5)	Use a physical ruler alongside a drawn number line, pointing to each unit while counting; keep differences within 10.	Solve two-step compare problems using the ruler/number line; write the matching equation and explain the strategy.
Understand Place Value Units (Weeks 6–7)	Use base-10 blocks (ones, tens, hundreds) to physically build a number before writing it; bundle 10 ones into a ten with the student.	Represent the same three-digit number using different combinations of hundreds/tens/ones (e.g., 3 hundreds 2 tens = 2 hundreds 12 tens) and explain why both work.
Express Three-Digit Numbers in Different Forms (Week 7)	Match a base-10 block model to its standard form number with a template showing hundreds/tens/ones columns.	Convert fluently between standard, expanded, unit, and word forms without a template; explain the value of each digit in a number.
Model Numbers with Money & Place Value Disks (Weeks 8–9)	Use dollar bills and dimes/pennies (or place value disks) side by side with base-10 blocks to connect the two models; keep numbers under 200.	Model the same three-digit number using both money and place value disks; explain how each model represents composing and decomposing.
Compare Two Three-Digit Numbers (Week 9)	Line up place value disks or blocks for two numbers, comparing hundreds first, then tens, then ones, with teacher modeling each step.	Compare numbers given in different forms (e.g., expanded form vs. word form) without converting both to standard form first; order a set of numbers.

General Differentiation Toolkit

Support Strategies (Below Level / Emerging)

- Use concrete manipulatives (base-10 blocks, place value disks, centimeter cubes, rulers) before moving to pictorial or abstract representations.
- Pre-teach vocabulary — especially measurement and place-value terms like "benchmark," "estimate," and "expanded form" — using visuals before the whole-group lesson.
- Keep numbers or lengths within a smaller, familiar range while a skill is new, then extend toward the full range (100 or 1,000) once secure.
- Provide a completed worked example alongside a matching blank template for guided practice.
- Pair with a peer partner for turn-and-talk and modeling during hands-on measurement or place-value tasks.
- Break multi-step problems into smaller, sequenced steps with checkpoints.

Extension Strategies (Above Level)

- Extend measurement or place-value tasks beyond the grade-level range (e.g., numbers closer to 1,000, longer lengths in meters).
- Challenge students to represent the same number or length in multiple ways and explain why each representation is valid.
- Ask students to justify in writing why one strategy or representation is more efficient or precise than another.
- Have students create original data sets, graphs, or word problems for a partner to solve.
- Have students teach a strategy to a small group or lead a turn-and-talk explaining their reasoning.

Multilingual Learner / Language Support

- Pair new vocabulary (e.g., "benchmark," "estimate," "compose," "expanded form") with gestures, visuals, and native-language cognates where possible.
- Use sentence frames for explaining reasoning: "I estimated ___ because ___." or "The digit in the hundreds place is ___ because ___."
- Allow students to show understanding through drawings, manipulatives, or hands-on measurement before requiring a verbal or written explanation.
- Preview key vocabulary in a small group before it's introduced in the whole-class lesson.



Grade 2: **Mathematics**

Quarter 2: Curriculum & Pacing Guide

Quarter Overview

Students develop flexible and efficient strategies for adding and subtracting within 200. They use place value understanding, concrete models, drawings, and written methods to compose and decompose tens and hundreds.

Students explore strategies such as breaking numbers apart, making a ten or hundred, compensation, counting on, and counting back. Throughout the module, they apply these strategies to one- and two-step word problems and explain why their chosen methods are effective.

Essential Questions

- How does place value help us add and subtract within 200?
- How can breaking numbers into smaller parts make addition and subtraction easier?
- When is it helpful to compose a new ten or hundred?
- How can models, drawings, and written methods represent our mathematical thinking?
- How can addition and subtraction help us solve one- and two-step problems?
- When is it necessary to decompose a ten or hundred?
- How can benchmark numbers, such as multiples of 10 and 100, help us calculate efficiently?
- How are addition and subtraction related?
- How can we determine which addition or subtraction strategy is most efficient?
- How can we explain and verify that a solution is reasonable?

Standards for Mathematical Practice (Used Throughout)

- MP1 — Make sense of problems and persevere in solving them
- MP2 — Reason abstractly and quantitatively
- MP3 — Construct viable arguments and critique the reasoning of others
- MP4 — Model with mathematics
- MP5 — Use appropriate tools strategically
- MP6 — Attend to precision
- MP7 — Look for and make use of structure
- MP8 — Look for and express regularity in repeated reasoning

Second Grade Quarter 2: *I can statements* (10-18 Weeks)

- I can use place value to add and subtract numbers within 200.
 - I can break numbers into smaller parts to make addition and subtraction easier.
 - I can compose a new ten or hundred when I add.
 - I can decompose a ten or hundred when I subtract.
 - I can use models, drawings, and written methods to show my mathematical thinking.
 - I can solve one- and two-step addition and subtraction problems.
 - I can use benchmark numbers, like multiples of 10 and 100, to calculate efficiently.
 - I can identify shapes by their attributes, like angles, faces, and sides.
 - I can combine shapes to make a composite shape.
 - I can explain and check that my answer makes sense.
-

Module 1, Part 2 Reference — Place Value, continued (Week 10)

Standards Addressed

- CC.2.1.2.B.1 — Number & Operations: count within 1,000; skip-count by 5s, 10s, and 100s
- CC.2.1.2.B.2 — Number & Operations: understand place value and read/write numbers to 1,000 in multiple forms

Vocabulary, Materials & Resources

See the Q1 Pacing Guide — this is the tail end of Module 1 Part 2 and uses the same vocabulary, materials, and curriculum resources.

Module 2 Reference — Addition and Subtraction Within 200 (Weeks 11–16)

Standards Addressed

- CC.2.1.2.B.3 — Number & Operations: use place value understanding and properties of operations to add and subtract
- CC.2.2.2.A.1 — Algebraic Concepts: use place value understanding and properties of operations to add and subtract within 200

Vocabulary

Content: decompose, sum

Familiar: addend, bar graph, benchmark number, bundle, centimeters, compare, compose, difference, efficiency, equal to, equation, expanded form, expression, graph, greater than, hundreds, less than, number bond, number sentence, ones, open number line, part, place

value units, rename, scale, standard form, subtracting, symbol, take away, take from, tens, total, unbundle, unit form, word form

Academic: defend, exchange, support

Materials Needed

Calendar time tools (bundles of 10s/100s, skip counting, telling time, odd/even numbers, money & coin talk) · Pencils · Chart paper · Classroom money kit · Craft sticks · Dry erase markers · Markers · Measuring tapes · Whiteboards & erasers · Place value disk sets · Sticky notes

Curriculum Resources

Eureka Math² Module 2 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](#) · Student Learn Book — Module 2 / Teach Book

Module 3 Reference — Shapes and Time with Fraction Concepts (Weeks 17–18, continues into Q3)

Standards Addressed

- CC.2.3.2.A.1 — Geometry: recognize and draw shapes with specified attributes (angles, faces, sides)
- CC.2.3.2.A.2 — Geometry: partition shapes into equal shares and describe composite shapes

Vocabulary

Content: angle, attribute, cube, edge, face, fraction, geometry, horizontal, parallelogram, pentagon, polygon, quadrilateral, quarter past, quarter to, right angle, side, thirds, third of, three-dimensional shape, two-dimensional shape, vertex, vertical

Familiar and academic vocabulary for Module 3 continues to be introduced as the module carries into Quarter 3; see the Q3 guide for the complete list.

Materials Needed

Calendar time tools (bundles of 10s/100s, skip counting, telling time, odd/even numbers, money & coin talk) · Bag of mini marshmallows · Bag of spaghetti · Blank sheets of paper · Brad fasteners · Chart paper

Curriculum Resources

Eureka Math² Module 3 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](#) · Student Learn Book — Module 3 / Teach Book

9-Week Pacing at a Glance

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
10	Module 1, Pt 2	Place Value, Counting, and Comparing Within 1,000, continued	Lessons 37–38: Compare Two Three-Digit Numbers in Different Forms Module 1 Part 2 Assessment	<i>How can place value help us count and compare numbers within 1,000?</i>
11	Module 2	Addition and Subtraction Within 200	Lessons 1–5: Simplifying Strategies for Addition	<i>How can breaking numbers into smaller parts make addition and subtraction easier?</i>
12	Module 2	Addition and Subtraction Within 200	Lessons 6–7: Simplifying Strategies for Addition Lessons 8–10: Strategies for Composing a Ten and a Hundred to Add	<i>When is it helpful to compose a new ten or hundred?</i>
13	Module 2	Addition and Subtraction Within 200	Lessons 11–12: Strategies for Composing a Ten and a Hundred to Add Lessons 13–15: Simplifying Strategies for Subtraction	<i>How does place value help us add and subtract within 200?</i>
14	Module 2	Addition and Subtraction Within 200	Lessons 16–19: Simplifying Strategies for Subtraction Lesson 20: Strategies for Decomposing a Ten and a Hundred to Subtract	<i>When is it necessary to decompose a ten or hundred?</i>
15	Module 2	Addition and Subtraction Within 200	Lessons 21–25: Strategies for Decomposing a Ten and a Hundred to Subtract	<i>How can benchmark numbers, such as multiples of 10 and 100, help us calculate efficiently?</i>
16	Module 2	Strategies for Decomposing a Ten and a Hundred to Subtract; Module 2 Assessment	Lessons 26–27: Strategies for Decomposing a Ten and a Hundred to Subtract Module 2 Assessment	<i>How can we determine which addition or subtraction strategy is most efficient?</i>
17	Module 3	Shapes and Time with Fraction Concepts	Lessons 1–5: Attributes of Geometric Shapes	<i>How can models, drawings, and written methods represent our mathematical thinking?</i>

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
18	Module 3	Shapes and Time with Fraction Concepts	Lessons 6–9: Composite Shapes and Fraction Concepts	<i>How are addition and subtraction related?</i>

Differentiation Strategies by Topic

Quick supports and extensions teachers can pull from during each instructional block. Use alongside small-group time, centers, or independent work.

Topic	Support (Below Level)	Extension (Above Level)
Simplifying Strategies for Addition (Weeks 11–12)	Use base-10 blocks or an open number line with pre-marked jumps of 10; break one addend into a friendly ten and ones with teacher modeling.	Add mentally using compensation (e.g., adjust one addend to a friendly number, then correct); explain the strategy in writing.
Composing a Ten/Hundred to Add (Weeks 12–13)	Use place value disks to physically trade 10 ones for a ten (or 10 tens for a hundred) before recording the equation.	Compose a ten or hundred mentally without disks; solve problems requiring two regroupings in one problem.
Simplifying Strategies for Subtraction (Weeks 13–14)	Use an open number line with pre-marked jumps to count back or count up to find the difference; keep within friendly ten boundaries.	Choose between counting back, counting up, or compensation based on the numbers given, and justify the choice.
Decomposing a Ten/Hundred to Subtract (Weeks 14–16)	Use place value disks to physically "unbundle" a ten into 10 ones (or a hundred into 10 tens) before recording the subtraction.	Decompose mentally without disks; solve subtraction problems requiring two regroupings and explain each step.
Attributes of Geometric Shapes (Week 17)	Sort real shape models by one attribute at a time (number of sides, number of angles); use a simple attribute checklist with pictures.	Sort shapes by multiple attributes at once; compare 2D and 3D shapes and explain how faces relate to 2D shapes.
Composite Shapes & Fraction Concepts (Week 18)	Use physical shape pieces (marshmallows/spaghetti for edges and vertices, or pattern blocks) to build composite shapes hands-on before drawing.	Partition a shape into thirds and compare to halves/fourths; explain how the number of equal parts affects the size of each share.

General Differentiation Toolkit

Support Strategies (Below Level / Emerging)

- Use concrete manipulatives (place value disks, base-10 blocks, open number lines) before moving to pictorial or abstract representations.
- Pre-teach vocabulary — especially terms like "decompose," "compose," and "rename" — using visuals and hands-on modeling before the whole-group lesson.
- Keep numbers within a smaller, familiar range (e.g., within 100) while a strategy is new, then extend to 200 once secure.
- Provide a completed worked example alongside a matching blank template for guided practice.
- Pair with a peer partner for turn-and-talk and modeling during hands-on place-value or shape tasks.
- Break two-step word problems into smaller, sequenced steps with checkpoints.

Extension Strategies (Above Level)

- Extend addition/subtraction tasks beyond 200, or introduce problems requiring two regroupings.
- Ask students to justify in writing why one strategy (compensation, making a ten, counting on) is more efficient than another for a given problem.
- Challenge students to solve the same problem two different ways and compare the equations or number lines.
- Have students create original word problems for a partner that require a specific strategy.
- Have students teach a strategy to a small group or lead a turn-and-talk explaining their reasoning.

Multilingual Learner / Language Support

- Pair new vocabulary (e.g., "decompose," "efficiency," "attribute") with gestures, visuals, and native-language cognates where possible.
- Use sentence frames for explaining reasoning: "I used ___ because ___." or "This shape has ___ sides, so it is a ___."
- Allow students to show understanding through drawings or manipulatives before requiring a verbal or written explanation.
- Preview key vocabulary in a small group before it's introduced in the whole-class lesson.



Grade 2: **Mathematics**

Quarter 3: Curriculum & Pacing Guide

Quarter Overview

Students explore the attributes of two- and three-dimensional shapes and use those attributes to identify, classify, compose, and decompose shapes. They partition shapes into equal shares and describe them as halves, thirds, and fourths, applying their understanding of fractional parts to tell time to the nearest five minutes.

Students then extend their place-value understanding to add and subtract within 1,000. They use mental strategies, concrete models, place-value drawings, and written methods to compose and decompose tens and hundreds, select efficient strategies, and solve one- and two-step problems.

Essential Questions

- How can attributes help us identify, describe, and classify shapes?
- How can smaller shapes be combined to create a new shape?
- How can a whole shape be decomposed into smaller shapes?
- What makes the parts of a whole equal shares?
- How can a whole be partitioned into halves, thirds, and fourths?
- How are fractional parts connected in telling time?
- How can we tell and represent time to the nearest five minutes?
- How does place value help us add and subtract within 1,000?
- When and why do we compose and decompose tens and hundreds?
- How can mental math, models, drawings, and written methods represent our thinking?
- How can we select the most efficient strategy for a given problem?
- How are addition and subtraction related?
- How can we use addition and subtraction to solve one- and two-step problems?
- How can we explain and verify that a solution is reasonable?

Standards for Mathematical Practice (Used Throughout)

- MP1 — Make sense of problems and persevere in solving them
- MP2 — Reason abstractly and quantitatively
- MP3 — Construct viable arguments and critique the reasoning of others
- MP4 — Model with mathematics
- MP5 — Use appropriate tools strategically
- MP6 — Attend to precision
- MP7 — Look for and make use of structure
- MP8 — Look for and express regularity in repeated reasoning

Second Grade Quarter 3: *I can statements* (19-27 Weeks)

- I can partition circles and rectangles into halves, thirds, and fourths.
 - I can explain what makes the parts of a whole equal shares.
 - I can tell and write time to the nearest five minutes.
 - I can connect fractional parts to telling time on a clock.
 - I can use mental math strategies to add and subtract within 1,000.
 - I can compose a ten or hundred when I add.
 - I can decompose a ten or hundred when I subtract.
 - I can choose the most efficient strategy to solve an addition or subtraction problem.
 - I can solve one- and two-step addition and subtraction problems.
 - I can solve problems using coins and bills.
-

Module 3 Reference — Shapes and Time with Fraction Concepts (Weeks 19–21)

Standards Addressed

- CC.2.3.2.A.2 — Geometry: partition circles and rectangles into halves, thirds, and fourths and describe the shares
- CC.2.4.2.A.2 — Data & Measurement: tell and write time to the nearest five minutes, connecting to fractional parts of a clock face

Vocabulary

Content vocabulary was introduced in Quarter 2 (see the Q2 guide) — this quarter adds:

Familiar: circle, fourths, fourth of, half, half of, halves, hexagon, parallel, partition, quarter, quarter of, rectangle, rhombus, square, square corner, trapezoid, triangle

Academic: create, defend, exchange, support

Materials Needed

Calendar time tools (bundles of 10s/100s, skip counting, telling time, odd/even numbers, money & coin talk) · Construction paper, grid paper, sticky notes · Crayons · Cube · Demonstration clock · Dry erase markers, whiteboards · Envelopes · Stop watch · Scissors, glue sticks, rulers · Markers, pencils · Plastic pattern blocks, unifix cubes · Toothpicks

Curriculum Resources

Eureka Math² Module 3 Manual · greatminds.com website · Happy Numbers · Student Learn Book — Module 3 / Teach Book

Module 4 Reference — Addition and Subtraction Within 1,000 (Weeks 22–26)

Standards Addressed

- CC.2.2.2.A.1 — Algebraic Concepts: use place value understanding and properties of operations to add and subtract within 1,000
- CC.2.2.2.A.2 — Algebraic Concepts: select and apply an efficient strategy to solve one- and two-step addition and subtraction problems
- CC.2.1.2.B.1 — Number & Operations: count within 1,000; skip-count by 5s, 10s, and 100s
- CC.2.1.2.B.2 — Number & Operations: understand place value (hundreds, tens, ones)
- CC.2.1.2.B.3 — Number & Operations: use place value understanding and properties of operations to add and subtract

Vocabulary

Familiar: addend, benchmark number, column, compose, confirm, decomposition, difference, efficiency, end point, equation, expression, fewer, horizontal, length, less, more, number bond, number line, number sentence, part-total, record, rename, strategy, subtraction, tape diagram, unit, unknown, unlabeled, vertical

Academic: Module 4 does not introduce any new academic vocabulary.

Materials Needed

Calendar time tools (bundles of 10s/100s, skip counting, telling time, odd/even numbers, money & coin talk) · Chart paper · Dot dice (set of 12) · Dry erase markers, whiteboards · Index cards · Markers, pencils · Whiteboard erasers · Sticky notes · Unifix cubes

Curriculum Resources

Eureka Math² Module 4 Manual · [greatminds.org website](https://www.greatminds.org) · [Happy Numbers](#) · Student Learn Book — Module 4 / Teach Book · Eureka Math² measuring tape · Eureka Math² place value disks set (ones to thousands)

Module 5 Preview — Money, Data, and Customary Measurement (Begins Week 27, continues into Q4)

Standards Addressed (so far)

- CC.2.2.2.A.3 — Algebraic Concepts: use addition and subtraction within 100 to solve word problems involving money
- CC.2.4.2.A.1 through CC.2.4.2.A.6 — Data & Measurement: measure, estimate, represent data (line plots), and solve problems involving money and customary units (foot, inch, yard)

Vocabulary

Content (introduced so far): foot, inch, interval, line plot, yard

Materials & Resources

The source pacing guide references its full materials and resources list on the Quarter 4 document, since Module 5 continues there — see the Q4 guide for the complete list.

9-Week Pacing at a Glance

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
19	Module 3	Shapes and Time with Fraction Concepts	Lessons 10–13: Halves, Thirds, and Fourths of Circles and Rectangles	<i>How can a whole be partitioned into halves, thirds, and fourths? What makes the parts of a whole equal shares?</i>
20	Module 3	Shapes and Time with Fraction Concepts	Lessons 14–18: Application of Fractions to Tell Time	<i>How are fractional parts connected in telling time? How can we tell and represent time to the nearest five minutes?</i>
21	Module 3	Application of Fractions to Tell Time; Module 3 Assessment	Lesson 19: Application of Fractions to Tell Time Module 3 Assessment	<i>How can we tell and represent time to the nearest five minutes?</i>
22	Module 4	Addition and Subtraction Within 1,000	Lessons 1–4: Mental Place Value Strategies Lesson 5: Strategies for Composing Tens and Hundreds Within 1,000	<i>How does place value help us add and subtract within 1,000? How can mental math, models, drawings, and written methods represent our thinking?</i>
23	Module 4	Addition and Subtraction Within 1,000	Lessons 6–10: Strategies for Composing Tens and Hundreds Within 1,000	<i>When and why do we compose and decompose tens and hundreds?</i>
24	Module 4	Addition and Subtraction Within 1,000	Lesson 11: Strategies for Composing Tens and Hundreds Within 1,000 Lessons 12–15: Simplifying Strategies for Subtracting Within 1,000	<i>How can we select the most efficient strategy for a given problem?</i>
25	Module 4	Addition and Subtraction Within 1,000	Lessons 16–20: Strategies for Decomposing Tens and Hundreds Within 1,000	<i>When and why do we compose and decompose tens and hundreds? How are addition and subtraction related?</i>

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
26	Module 4	Apply Efficient Addition and Subtraction Strategies; Module 4 Assessment	Lessons 21–24: Apply Efficient Addition and Subtraction Strategies Module 4 Assessment	<i>How can we use addition and subtraction to solve one- and two-step problems? How can we explain and verify that a solution is reasonable?</i>
27	Module 5	Money, Data, and Customary Measurement	Lessons 1–2: Problem Solving with Coins and Bills	<i>Module 5 begins here and continues into Quarter 4 — see the Q4 guide for its full essential questions.</i>

Differentiation Strategies by Topic

Quick supports and extensions teachers can pull from during each instructional block. Use alongside small-group time, centers, or independent work.

Topic	Support (Below Level)	Extension (Above Level)
Halves, Thirds, and Fourths of Circles/Rectangles (Week 19)	Fold or cut a physical circle/rectangle into equal parts hands-on before drawing; use the sentence frame: "This whole is divided into ___ equal parts."	Compare thirds, halves, and fourths of the same whole and explain which part is largest/smallest and why; partition irregular wholes.
Application of Fractions to Tell Time (Weeks 20–21)	Use a demonstration clock with the face divided into colored fourths; connect "quarter past" and "half past" directly to the fraction pieces already learned.	Tell and write time to the nearest five minutes independently; explain how the minute hand's position relates to fractional parts of the hour.
Mental Place Value Strategies (Week 22)	Use place value disks or a hundreds chart to model mental strategies step by step before removing the visual support.	Solve addition/subtraction problems mentally without tools; explain the mental strategy used in writing.
Composing Tens and Hundreds Within 1,000 (Weeks 22–24)	Use place value disks to physically trade 10 ones for a ten or 10 tens for a hundred before recording the equation.	Compose a ten and a hundred in the same problem mentally; solve problems requiring multiple regroupings.
Simplifying Strategies for Subtracting Within 1,000 (Week 24)	Use an open number line or place value disks to count up or back in friendly jumps; keep the numbers being subtracted close together at first.	Choose between subtraction strategies (counting up, compensation, standard algorithm) based on the numbers given, and justify the choice.
Decomposing Tens and Hundreds Within 1,000 (Week 25)	Use place value disks to physically "unbundle" a hundred into 10 tens (or a ten into 10 ones) before recording the subtraction.	Decompose mentally without disks; solve subtraction problems requiring two regroupings and explain each step in writing.
Apply Efficient Addition & Subtraction Strategies (Week 26)	Provide a strategy menu (number line, disks, mental math) for students to choose from, with teacher check-ins at each step.	Solve the same two-step problem using two different strategies and compare efficiency; justify the most efficient choice in writing.
Problem Solving with Coins and Bills (Week 27)	Use real or play coins and bills, sorting and counting by value before combining; start with a single coin type.	Solve word problems involving combinations of coins and bills that require regrouping (e.g., making change); create an original money word problem.

General Differentiation Toolkit

Support Strategies (Below Level / Emerging)

- Use concrete manipulatives (fraction pieces, demonstration clocks, place value disks) before moving to pictorial or abstract representations.
- Pre-teach vocabulary — especially fraction and geometry terms like "partition," "equal shares," and "decomposition" — using visuals before the whole-group lesson.
- Keep numbers within a smaller, familiar range (e.g., within 200) while a strategy is new, then extend to 1,000 once secure.
- Provide a completed worked example alongside a matching blank template for guided practice.
- Pair with a peer partner for turn-and-talk and modeling during hands-on shape, time, or place-value tasks.
- Break two-step word problems into smaller, sequenced steps with checkpoints.

Extension Strategies (Above Level)

- Extend addition/subtraction tasks beyond 1,000, or introduce problems requiring two regroupings.
- Challenge students to partition the same whole multiple ways and compare the size of each share.
- Ask students to justify in writing why one strategy is more efficient than another for a given problem.
- Have students create original word problems (time, shapes, or place value) for a partner to solve.
- Have students teach a strategy to a small group or lead a turn-and-talk explaining their reasoning.

Multilingual Learner / Language Support

- Pair new vocabulary (e.g., "partition," "decomposition," "efficiency," shape names) with gestures, visuals, and native-language cognates where possible.
- Use sentence frames for explaining reasoning: "I partitioned the whole into ___ equal parts." or "I used ___ because ___."
- Allow students to show understanding through drawings, manipulatives, or hands-on modeling before requiring a verbal or written explanation.
- Preview key vocabulary in a small group before it's introduced in the whole-class lesson.



Grade 2: **Mathematics**

Quarter 4: Curriculum & Pacing Guide

Quarter Overview

Students apply addition and subtraction skills to solve problems involving money, measurement, and data. They identify and determine the value of coins and bills, estimate and measure lengths using inches, feet, and yards, compare measurements, and represent measurement data on line plots.

Students then build foundations for multiplication and division by creating and counting equal groups, writing repeated-addition equations, organizing objects into rows and columns, and constructing rectangular arrays. They also use grouping, pairing, and skip-counting strategies to determine whether numbers are even or odd. These experiences prepare students for formal multiplication, division, and area concepts.

Essential Questions

- How can we determine and represent the value of a collection of coins and bills?
- How can addition and subtraction help us solve problems involving money?
- How do we choose an appropriate tool and unit for measuring length?
- How does the size of a measurement unit affect the numerical measurement?
- How can we estimate, measure, and compare lengths accurately?
- How can addition and subtraction help us solve measurement problems?
- How can measurement data be organized and represented on a line plot?
- How can graphs and line plots help us answer questions about data?
- What makes a group of objects an equal group?
- How can repeated addition represent equal groups?
- How can objects be organized into rows and columns?
- How do arrays help us find and represent a total?
- How can the same total be arranged or grouped in different ways?
- How can equal groups and arrays prepare us for multiplication and division?
- How can pairing and skip-counting help us determine whether a number is even or odd?
- How can models, drawings, and equations help us explain and justify our mathematical thinking?

Standards for Mathematical Practice (Used Throughout)

- MP1 — Make sense of problems and persevere in solving them
- MP2 — Reason abstractly and quantitatively
- MP3 — Construct viable arguments and critique the reasoning of others
- MP4 — Model with mathematics
- MP5 — Use appropriate tools strategically
- MP6 — Attend to precision
- MP7 — Look for and make use of structure
- MP8 — Look for and express regularity in repeated reasoning

Second Grade Quarter 4: *I can statements* (28-36 Weeks)

- I can determine and represent the value of a collection of coins and bills.
 - I can use addition and subtraction to solve problems involving money.
 - I can choose an appropriate tool and unit for measuring length (inches, feet, yards).
 - I can estimate, measure, and compare lengths accurately.
 - I can organize and represent measurement data on a line plot.
 - I can create equal groups and write repeated-addition equations to represent them.
 - I can organize objects into rows and columns to build an array.
 - I can use arrays to find and represent a total.
 - I can show that the same total can be arranged or grouped in different ways.
 - I can use pairing and skip-counting to tell if a number is even or odd.
-

Module 5 Reference — Money, Data, and Customary Measurement (Weeks 28–30)

Standards Addressed

- CC.2.4.2.A.1 — Data & Measurement: measure and estimate lengths using customary units (inches, feet, yards)
- CC.2.4.2.A.3 — Data & Measurement: use addition and subtraction within 100 to solve word problems involving money
- CC.2.4.2.A.4 — Data & Measurement: represent and interpret measurement data using line plots
- CC.2.4.2.A.6 — Data & Measurement: use addition and subtraction to solve length/measurement problems
- CC.2.2.2.A.1 — Algebraic Concepts: use place value understanding and properties of operations to add and subtract
- CC.2.2.2.A.3 — Algebraic Concepts: use addition and subtraction within 100 to solve word problems involving money and measurement

Vocabulary

Familiar: benchmark, bill, cent, centimeter, change, coin, data, dime, dollar, estimate, exchange, length, measure, measurement, nickel, penny, quarter, ruler, scale, value

Academic: no new academic vocabulary introduced

Materials Needed

100-bead demonstration rekenrek · Cardstock, blank paper · Centimeter cubes · Chart paper, grid sheets · Color tiles · Crayons, dry erase markers, markers · Folders, glue sticks, pencils · Index cards · Whiteboards · Dimes, nickels, pennies, quarters · Plastic bags, scissors, stapler · Sticky notes, string, tape · Wood rulers

Curriculum Resources

Eureka Math² Module 5 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](#) · Student Learn Book — Module 5 / Teach Book

Content vocabulary for Module 5 (foot, inch, interval, line plot, yard) was introduced in Quarter 3 — see the Q3 guide.

Module 6 Reference — Multiplication and Division Foundations (Weeks 31–35)

Standards Addressed

- CC.2.2.2.A.1 — Algebraic Concepts: use place value understanding and properties of operations to add and subtract
- CC.2.2.2.A.2 — Algebraic Concepts: select and apply an efficient strategy to solve one- and two-step problems
- CC.2.2.2.A.3 — Algebraic Concepts: use addition (repeated addition) to represent and solve problems with equal groups and arrays
- CC.2.1.2.B.2 — Number & Operations: understand place value and use skip-counting/pairing strategies, including determining even and odd numbers
- CC.2.3.2.A.1 — Geometry: recognize and draw shapes with specified attributes, applied to rectangular arrays

Vocabulary

Content: array, column, equal groups, even number, odd number, repeated addition, row

Familiar: addend, attribute, compose, decompose, double, equation, horizontal, part, rectangle, square, sum, total, unit, vertical, whole

Academic: no new academic vocabulary introduced

Materials Needed

Calendar time tools (bundles of 10s/100s, skip counting, telling time, odd/even numbers, money & coin talk) · 100-bead demonstration rekenrek · Blank paper, chart paper · Chart markers · Colored pencils, pencils · Colored tiles · Dot dice (set of 12) · Dry erase markers, whiteboards, erasers · Envelopes · Scissors · Small paper clips · Sticky notes · Wood rulers (inch and metric)

Curriculum Resources

Eureka Math² Module 6 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](#) · Student Learn Book — Module 6 / Teach Book · Eureka Math² Numeral cards (set) · Eureka Math² measuring tapes

9-Week Pacing at a Glance

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
28	Module 5	Money, Data, and Customary Measurement, continued	Lessons 3–7: Problem Solving with Coins and Bills	How can we determine and represent the value of a collection of coins and bills? How can addition and subtraction help us solve problems involving money?
29	Module 5	Money, Data, and Customary Measurement	Lessons 8–12: Use Customary Units to Measure and Estimate Length	How do we choose an appropriate tool and unit for measuring length? How does the size of a measurement unit affect the numerical measurement?
30	Module 5	Use Measurement and Data to Solve Problems; Unit 5 Module Assessment	Lessons 13–16: Use Measurement and Data to Solve Problems Unit 5 Module Assessment	How can we estimate, measure, and compare lengths accurately? How can measurement data be organized and represented on a line plot?
31	Module 6	Multiplication and Division Foundations	Lessons 1–3: Count and Problem Solve with Equal Groups	What makes a group of objects an equal group? How can repeated addition represent equal groups?
32	Module 6	Multiplication and Division Foundations	Lesson 4: Count and Problem Solve with Equal Groups Lessons 5–8: Arrays and Equal Groups	How can objects be organized into rows and columns? How do arrays help us find and represent a total?
33	Module 6	Multiplication and Division Foundations	Lessons 9–13: Rectangular Arrays as a Foundation for Multiplication and Division	How can the same total be arranged or grouped in different ways? How can equal groups and arrays prepare us for multiplication and division?
34	Module 6	Multiplication and Division Foundations	Lessons 14–18: The Meaning of Even and Odd Numbers	How can pairing and skip-counting help us determine whether a number is even or odd?

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
35	Module 6	Module 6 Assessment • Begin End-of-Year Assessments	Module 6 Assessment *EOY Assessments	<i>Cumulative review and year-end assessment</i>
36	—	End of Year Assessments	*EOY Assessments	<i>Cumulative review and year-end assessment</i>

Differentiation Strategies by Topic

Quick supports and extensions teachers can pull from during each instructional block. Use alongside small-group time, centers, or independent work.

Topic	Support (Below Level)	Extension (Above Level)
Problem Solving with Coins and Bills (Week 28)	Use real or play coins/bills, sorting and counting by value before combining; start with a single coin type and small totals.	Solve word problems involving combinations of coins and bills that require making change; create an original money word problem.
Customary Units to Measure & Estimate Length (Week 29)	Use inch tiles or a ruler with inch marks highlighted; measure the same object with both inches and feet to see the relationship.	Choose the most appropriate customary unit (inch, foot, yard) for a given object and justify the choice; convert between units.
Use Measurement & Data to Solve Problems / Line Plots (Week 30)	Provide a partially completed line plot template; measure a small set of objects (4–5) together as a class before plotting independently.	Collect and plot a larger data set independently; write and answer comparison questions using the line plot ("how many more/fewer").
Count and Problem Solve with Equal Groups (Weeks 31–32)	Use real objects to build equal groups physically before writing the repeated-addition equation; keep group size and number of groups small (2–3).	Write both a repeated-addition equation and a matching multiplication expression informally; solve problems with larger or unequal-looking groups and explain why they are or aren't equal.
Arrays and Equal Groups (Week 32)	Build arrays with color tiles or counters in rows and columns, counting each row aloud before finding the total.	Find the total of an array two different ways (by rows and by columns) and explain why the total is the same; build arrays for a given total.
Rectangular Arrays for Multiplication/Division (Week 33)	Use grid paper to draw arrays with the rows and columns pre-marked; connect each array directly to a repeated-addition equation.	Decompose a larger array into two smaller arrays and find the total both ways; explain the connection between arrays and future multiplication.
The Meaning of Even and Odd Numbers (Week 34)	Use counters to physically pair objects, circling pairs and identifying any leftover; keep numbers small and consistent (under 20).	Determine even/odd for larger numbers using skip-counting or the ones-digit pattern without pairing objects; explain the pattern in writing.

General Differentiation Toolkit

Support Strategies (Below Level / Emerging)

- Use concrete manipulatives (coins and bills, rulers, color tiles, counters) before moving to pictorial or abstract representations.
- Pre-teach vocabulary — especially new terms like "array," "equal groups," and "repeated addition" — using visuals and hands-on modeling before the whole-group lesson.
- Keep group sizes, totals, or measurement numbers small and familiar while a skill is new, then extend once secure.
- Provide a completed worked example alongside a matching blank template for guided practice.
- Pair with a peer partner for turn-and-talk and modeling during hands-on money, measurement, or array tasks.
- Break multi-step word problems into smaller, sequenced steps with checkpoints.

Extension Strategies (Above Level)

- Extend money or measurement tasks to larger amounts, mixed units, or two-step problems.
- Challenge students to represent the same array or total in multiple ways (rows vs. columns, different group sizes) and explain why the total stays the same.
- Ask students to justify in writing why one strategy or unit choice is more efficient or precise than another.
- Have students create original data sets, line plots, or word problems for a partner to solve.
- Have students teach a strategy to a small group or lead a turn-and-talk explaining their reasoning.

Multilingual Learner / Language Support

- Pair new vocabulary (e.g., "array," "equal groups," "benchmark," coin names) with gestures, visuals, and native-language cognates where possible.
- Use sentence frames for explaining reasoning: "There are ___ groups of ___, so the total is ___." or "I used ___ because ___."
- Allow students to show understanding through drawings, manipulatives, or hands-on counting before requiring a verbal or written explanation.
- Preview key vocabulary in a small group before it's introduced in the whole-class lesson.



Grade 3: **Mathematics**

Quarter 1: Curriculum & Pacing Guide

Quarter Overview

Students develop foundational understandings of multiplication and division by working with equal groups, arrays, skip-counting, and related equations. They interpret multiplication as finding a total and division as finding the number or size of equal groups, while using properties of operations to develop efficient strategies with factors of 2, 3, 4, 5, and 10.

Students then apply place-value understanding to measurement contexts involving length, mass, liquid volume, and time. They use number lines to round numbers, solve elapsed-time problems, and add and subtract within 1,000. Throughout the units, students represent and solve one- and two-step problems using models, drawings, equations, and precise mathematical language.

Essential Questions

- How can equal groups and arrays represent multiplication and division?
- What do the factors in a multiplication equation represent?
- How can division help us find the number or size of equal groups?
- How are multiplication and division related?
- How can skip-counting and known facts help us multiply and divide?
- How can the commutative and distributive properties help us solve multiplication problems?
- How can models, drawings, and equations represent multiplication and division situations?
- How can we solve problems involving measurements and elapsed time?
- How can estimation help us determine whether an answer is reasonable?
- How can place value help us estimate, add, and subtract?
- How can a number line help us round numbers to the nearest ten or hundred?
- How do we select appropriate tools and units to measure length, mass, and liquid volume?
- How can we use multiple operations to solve one- and two-step problems?
- How can we explain and justify our mathematical reasoning?

Standards for Mathematical Practice (Used Throughout)

- MP1 — Make sense of problems and persevere in solving them
- MP2 — Reason abstractly and quantitatively
- MP3 — Construct viable arguments and critique the reasoning of others
- MP4 — Model with mathematics
- MP5 — Use appropriate tools strategically
- MP6 — Attend to precision
- MP7 — Look for and make use of structure
- MP8 — Look for and express regularity in repeated reasoning

Third Grade Quarter 1: *I can statements* (1-9 Weeks)

- I can use equal groups and arrays to represent multiplication and division.
 - I can explain what the factors in a multiplication equation mean.
 - I can use division to find the number or size of equal groups.
 - I can show how multiplication and division are related.
 - I can use the commutative and distributive properties to solve multiplication problems.
 - I can use models, drawings, and equations to represent multiplication and division.
 - I can measure length, mass, and liquid volume using the right tools and units.
 - I can use a number line to round numbers to the nearest ten or hundred.
 - I can use place value to estimate, add, and subtract.
 - I can solve one- and two-step problems using multiple operations.
-

Module 1 Reference — Multiplication and Division with Units of 2, 3, 4, 5, and 10 (Weeks 2–7)

Standards Addressed — Module 1

- CC.2.2.3.A.1 — Algebraic Concepts: represent and solve problems involving multiplication and division
- CC.2.2.3.A.2 — Algebraic Concepts: apply properties of operations as strategies to multiply and divide
- CC.2.2.3.A.3 — Algebraic Concepts: understand division as an unknown-factor problem
- CC.2.2.3.A.4 — Algebraic Concepts: determine the unknown whole number in a multiplication or division equation

Vocabulary

Content: commutative property of multiplication, division, divide, divided by, factor, multiplication, multiply, parentheses, (), product, quotient, rotate, size of group

Familiar: array, column, equal parts, equal shares, equal sharing, equation, estimate (noun); estimate (verb), expression, number in (or size of) each group, number of groups, repeated addition, row, skip count, unit, unit form, unknown

Academic: no new academic vocabulary introduced

Materials Needed

100-bead demonstration rekenrek · Color tiles · Colored pencils, pencils · Crackers · Dry erase markers, erasers · Whiteboards · Envelopes · Interlocking cubes · Paper plates · Scissors · Sticky notes · Wood rulers (inch and metric)

Curriculum Resources

Eureka Math² Module 1 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](#) · [iXL.com](#) ·
Student Learn Book — Module 1 / Teach Book

Module 2 Reference — Place Value Concepts Through Metric Measurement (Weeks 7–9, continues into Q2)

Standards Addressed — Module 2

- CC.2.4.3.A.1 — Data & Measurement: measure and estimate liquid volumes and masses of objects using standard units
- CC.2.4.3.A.2 — Data & Measurement: represent and interpret data using scaled bar graphs and other representations
- CC.2.4.3.A.4 — Data & Measurement: solve problems involving measurement and estimation
- CC.2.1.3.B.1 — Number & Operations: use place value understanding to round whole numbers to the nearest ten or hundred
- CC.2.2.3.A.4 — Algebraic Concepts: determine the unknown whole number in an equation (applied to measurement contexts)

Vocabulary

Content: capacity, gram, kilogram, liquid volume, liter, milliliter, operation, round, rounding, scaled bar graph, standard algorithm

Familiar and academic vocabulary for Module 2 continues to be introduced as the module carries into Quarter 2; see the Q2 guide for the complete list.

Materials Needed

Eureka Math² place value disks set (one to one thousand) · Eureka Math² tape measure (150 cm) · Eureka Math² whole number place value cards

Curriculum Resources

Eureka Math² Module 2 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](#) · [iXL.com](#) ·
Student Learn Book — Module 2 / Teach Book

9-Week Pacing at a Glance

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
1	Getting Started	Establish Routines & Classroom Procedures	No new content lessons this week	Set up math routines, tools, and norms for the year
2	Module 1	Multiplication and Division with Units of 2, 3, 4, 5, and 10	Lessons 1–3: Conceptual Understanding of Multiplication BOY MAP Growth	How can equal groups and arrays represent multiplication and division?
3	Module 1	Multiplication and Division with Units of 2, 3, 4, 5, and 10	Lessons 4–5: Conceptual Understanding of Multiplication Lessons 6–7: Conceptual Understanding of Division	What do the factors in a multiplication equation represent? How can division help us find the number or size of equal groups?
4	Module 1	Multiplication and Division with Units of 2, 3, 4, 5, and 10	Lessons 8–9: Conceptual Understanding of Division Lessons 10–12: Properties of Multiplication	How are multiplication and division related?
5	Module 1	Multiplication and Division with Units of 2, 3, 4, 5, and 10	Lessons 13–14: Properties of Multiplication Lessons 15–17: Two Interpretations of Division	How can the commutative and distributive properties help us solve multiplication problems? How can skip-counting and known facts help us multiply and divide?
6	Module 1	Multiplication and Division with Units of 2, 3, 4, 5, and 10	Lesson 18: Two Interpretations of Division Lessons 19–22: Applications of Multiplication and Division Concepts	How can models, drawings, and equations represent multiplication and division situations?
7	Module 1 → 2	Applications of Mult./Div.; Module 1 Review & Assessment; Begin Place Value Through Metric Measurement	Lesson 23: Applications of Multiplication and Division Concepts; Module 1 Review; Module 1 Assessment Lessons 1–2: Understanding Place Value Concepts Through Metric Measurement	How can we explain and justify our mathematical reasoning?

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
8	Module 2	Place Value Concepts Through Metric Measurement	Lessons 3–7: Understanding Place Value Concepts Through Metric Measurement	<i>How do we select appropriate tools and units to measure length, mass, and liquid volume?</i>
9	Module 2	Place Value Concepts Through Metric Measurement	Lessons 8–12: Rounding to the Nearest Ten and Hundred	<i>How can a number line help us round numbers to the nearest ten or hundred? How can place value help us estimate, add, and subtract?</i>

Differentiation Strategies by Topic

Quick supports and extensions teachers can pull from during each instructional block. Use alongside small-group time, centers, or independent work.

Topic	Support (Below Level)	Extension (Above Level)
Conceptual Understanding of Multiplication (Weeks 2–3)	Use equal groups of real objects (crackers, counters) before moving to arrays; use the sentence frame: "There are ___ groups of ___."	Write both a repeated-addition equation and a matching multiplication equation for the same array; solve problems with larger factors (up to 10).
Conceptual Understanding of Division (Weeks 3–4)	Use real objects to physically share into equal groups (equal sharing) before recording the equation; keep totals small and evenly divisible.	Solve division problems using both interpretations (equal groups and equal sharing) and explain how they're related; connect to a multiplication fact family.
Properties of Multiplication (Weeks 4–5)	Use arrays that can be physically rotated to show the commutative property; break apart one factor using color tiles to model the distributive property.	Use the distributive property to solve a multiplication fact by breaking apart a factor in more than one way; explain why the property works.
Two Interpretations of Division (Weeks 5–6)	Use counters to model "how many groups?" and "how many in each group?" as two separate, concrete scenarios with the same numbers.	Write word problems that require each interpretation of division and explain how to tell them apart from the problem's wording.
Applications of Multiplication and Division (Weeks 6–7)	Use the Read–Draw–Write process with a sentence frame for each step; solve one-step problems before combining into two-step problems.	Solve two-step problems using both multiplication and division; write an original multi-step word problem for a partner.
Place Value Through Metric Measurement (Weeks 7–8)	Use place value disks alongside real metric tools (rulers, scales) to connect the number to the measurement; keep measurements within familiar, round numbers.	Compare and order several measurements in different metric units; explain how place value helps read a scaled instrument precisely.
Rounding to the Nearest Ten and Hundred (Week 9)	Use a physical or drawn number line with the target numbers marked; model "which ten/hundred is it closer to" with a partner before rounding independently.	Round larger numbers to the nearest ten and hundred and explain the rule for numbers exactly halfway; use rounding to estimate sums and differences.

General Differentiation Toolkit

Support Strategies (Below Level / Emerging)

- Use concrete manipulatives (counters, arrays, place value disks) before moving to pictorial or abstract representations.
- Pre-teach vocabulary — especially new terms like "factor," "quotient," and "commutative property" — using visuals and hands-on modeling before the whole-group lesson.
- Keep factors/quotients within a smaller, familiar range (e.g., 2s and 5s) while a strategy is new, then extend to the full set of units (2, 3, 4, 5, 10).
- Provide a completed worked example alongside a matching blank template for guided practice.
- Pair with a peer partner for turn-and-talk and modeling during hands-on multiplication, division, or measurement tasks.
- Break two-step word problems into smaller, sequenced steps with checkpoints using Read–Draw–Write.

Extension Strategies (Above Level)

- Extend multiplication/division facts beyond the units of 2, 3, 4, 5, and 10, or introduce two-step problems combining both operations.
- Ask students to justify in writing why one property (commutative, distributive) makes a problem easier to solve.
- Challenge students to represent the same multiplication fact multiple ways (array, equal groups, repeated addition, equation) and explain the connections.
- Have students create original word problems for a partner that require a specific strategy or property.
- Have students teach a strategy to a small group or lead a turn-and-talk explaining their reasoning.

Multilingual Learner / Language Support

- Pair new vocabulary (e.g., "factor," "quotient," "capacity," "estimate") with gestures, visuals, and native-language cognates where possible.
- Use sentence frames for explaining reasoning: "There are ___ groups of ___, so the total is ___." or "I rounded to ___ because ___."
- Allow students to show understanding through drawings, manipulatives, or hands-on modeling before requiring a verbal or written explanation.
- Preview key vocabulary in a small group before it's introduced in the whole-class lesson.



Grade 3: **Mathematics**

Quarter 2: Curriculum & Pacing Guide

Quarter Overview

Students strengthen place-value understanding through real-world measurement experiences involving length, mass, and liquid volume. They estimate and measure using metric units, represent measurements on number lines, round numbers to the nearest ten and hundred, and use place-value strategies to add and subtract within 1,000.

Students then extend their understanding of multiplication and division to units of 0, 1, 6, 7, 8, 9, 11, and 12. They use arrays, properties of operations, known facts, and the relationship between multiplication and division to develop efficient strategies and greater fact fluency. Throughout the units, students apply their learning to one- and two-step problems and explain their reasoning with models, drawings, equations, and mathematical language.

Essential Questions

- How does place value help us read, represent, compare, and calculate with numbers?
- How can a number line help us understand the size and value of numbers?
- How can we round numbers to the nearest ten or hundred?
- How does estimation help us determine whether an answer is reasonable?
- How do we select an appropriate metric unit and tool for measuring an object?
- How are different metric units related?
- How can we use place value to add and subtract measurements within 1,000?
- How can addition and subtraction help us solve measurement problems?
- How can known multiplication facts help us find unknown facts?
- How can arrays and equal groups represent multiplication and division?
- How are multiplication and division related?
- How can the properties of operations help us multiply and divide efficiently?
- What patterns can help us multiply and divide by 0, 1, 6, 7, 8, 9, 11, and 12?
- How can we determine which multiplication or division strategy is most efficient?
- How can we use multiple operations to solve one- and two-step problems?
- How can models, equations, and explanations communicate and justify our mathematical thinking?

Standards for Mathematical Practice (Used Throughout)

- MP1 — Make sense of problems and persevere in solving them
- MP2 — Reason abstractly and quantitatively
- MP3 — Construct viable arguments and critique the reasoning of others
- MP4 — Model with mathematics
- MP5 — Use appropriate tools strategically

- MP6 — Attend to precision
- MP7 — Look for and make use of structure
- MP8 — Look for and express regularity in repeated reasoning

Third Grade Quarter 2: *I can statements* (10-18 Weeks)

- **I can** use place value strategies to add and subtract within 1,000.
 - **I can** solve measurement problems using addition and subtraction.
 - **I can** use arrays and equal groups to represent multiplication and division.
 - **I can** use known multiplication facts to find unknown facts.
 - **I can** show how multiplication and division are related.
 - **I can** find patterns to help me multiply and divide by 0, 1, 6, 7, 8, 9, 11, and 12.
 - **I can** use properties of operations to multiply and divide efficiently.
 - **I can** choose the most efficient multiplication or division strategy for a problem.
 - **I can** multiply by multiples of 10.
 - **I can** use models, equations, and words to explain my mathematical thinking.
-

Module 2 Reference — Place Value Through Metric Measurement, continued (Weeks 10–12)

Standards Addressed

- CC.2.1.3.B.1 — Number & Operations: use place value understanding to round whole numbers; add and subtract using place value strategies
- CC.2.4.3.A.1 — Data & Measurement: measure and estimate liquid volumes and masses of objects using standard units
- CC.2.4.3.A.4 — Data & Measurement: solve problems involving measurement and estimation, including addition and subtraction of measurements

Vocabulary

Content vocabulary was introduced in Quarter 1 (see the Q1 guide) — this quarter adds:

Familiar: about, addend, bar graph, benchmark, centimeters, more than, less than, about the same, compose, decompose, divide, estimate (noun); estimate (verb), exchange, bundle, unbundle, rename, halfway, heavier, lighter, horizontal, interval, measure, mental math, meters, multiply, number line, place value units, plot, simplifying strategy, temperature, tick mark, vertical, weight

Academic: determine, examine, locate

Materials Needed

2-liter containers, bottle of liquid food coloring (blue) · Clear plastic cups, containers (1L, >1L, <1L) · Thermometer, digital compact scale with 5-cup bowl · Dry erase markers, erasers · Whiteboards · Envelopes · Graduated cylinder (100 mL, 1,000 mL) · Index cards, interlocking cubes · Chart paper, sticky notes · Pencils, markers · Plastic pitchers (1.5 L or larger) · Platform scales · Resealable bags (gallon and sandwich size) · Roll of painter's tape · Syringe

Curriculum Resources

Eureka Math² Module 2 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](https://www.happy-numbers.com) · [iXL.com](https://www.ixl.com) · Student Learn Book — Module 2 / Teach Book · Eureka Math² place value disks set (one to one thousand) · Eureka Math² tape measure (150 cm) · Eureka Math² whole number place value cards

Module 3 Reference — Multiplication and Division with Units of 0, 1, 6, 7, 8, and 9 (Weeks 13–18)

Standards Addressed

- CC.2.2.3.A.1 — Algebraic Concepts: represent and solve problems involving multiplication and division
- CC.2.2.3.A.2 — Algebraic Concepts: apply properties of operations as strategies to multiply and divide
- CC.2.2.3.A.3 — Algebraic Concepts: understand division as an unknown-factor problem
- CC.2.2.3.A.4 — Algebraic Concepts: determine the unknown whole number in a multiplication or division equation
- CC.2.1.3.B.1 — Number & Operations: use place value understanding, including patterns when multiplying/dividing by 10

Vocabulary

Content: multiple

Familiar: array, column, commutative property, distribute, divide, division, divided by, equal groups, equation, estimate (verb), estimate (noun), even number, expression, factor, multiplication, multiply, number bond, odd number, parentheses, product, quotient, row, skip count, tape diagram, unit, unit form, unknown, value

Academic: apply

Materials Needed

100-bead demonstration rekenrek · Chart paper · Colored pencils · Dry erase markers, whiteboards, erasers · Envelopes · Interlocking cubes · Pencils · Scissors · Sticky notes · Highlighters

Curriculum Resources

Eureka Math² Module 3 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](https://www.happy-numbers.com) · [iXL.com](https://www.ixl.com) · Student Learn Book — Module 3 / Teach Book · Eureka Math² numeral cards (set of 12) · Eureka Math² place value disks set (ones to thousands)

Module 4 Preview — Multiplication & Area (Begins Week 18, continues into Q3)

Standards Addressed (so far)

- CC.2.1.3.B.1 — Number & Operations: use place value understanding to support multiplication involving area
- CC.2.4.3.A.5 — Data & Measurement: relate area to the operations of multiplication and addition

Vocabulary

Content (introduced so far): area, area model, length, side length, square centimeter, square inch, square units, unit square, width

Materials & Resources

The source pacing guide references its full materials list on the Quarter 3 document, since Module 4 continues there — see the Q3 guide for the complete list.

Eureka Math² Module 4 Manual · greatminds.com website · Happy Numbers · iXL.com · Student Learn Book — Module 4 / Teach Book

9-Week Pacing at a Glance

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
10	Module 2	Place Value Through Metric Measurement, continued	Lessons 13–17: Simplifying Strategies to Find Sums and Differences	<i>How does place value help us read, represent, compare, and calculate with numbers?</i>
11	Module 2	Place Value Through Metric Measurement	Lessons 18–19: Simplifying Strategies to Find Sums and Differences Lessons 20–22: Two- and Three-Digit Measurement Addition and Subtraction	<i>How can we use place value to add and subtract measurements within 1,000?</i>
12	Module 2	Two- and Three-Digit Measurement Addition/Subtraction; Module 2 Review & Assessment	Lessons 23–25: Two- and Three-Digit Measurement Addition and Subtraction Module 2 Review; Module 2 Assessment	<i>How can addition and subtraction help us solve measurement problems?</i>
13	Module 3	Multiplication and Division with Units of 0, 1, 6, 7, 8, and 9	Lessons 1–5: Multiplication and Division Concepts with an Emphasis on Units of 6 and 8	<i>How can arrays and equal groups represent multiplication and division?</i>
14	Module 3	Multiplication and Division with Units of 0, 1, 6, 7, 8, and 9	Lesson 6: Multiplication and Division Concepts with an Emphasis on Units of 6 and 8 Lessons 7–10: Multiplication and Division Concepts with an Emphasis on the Unit of 7	<i>How can known multiplication facts help us find unknown facts?</i>
15	Module 3	Multiplication and Division with Units of 0, 1, 6, 7, 8, and 9	Lessons 11–12: Multiplication and Division Concepts with an Emphasis on the Unit of 7 Lessons 13–15: Analysis of Patterns Using Units of 9, 0, and 1	<i>What patterns can help us multiply and divide by 0, 1, 6, 7, 8, 9, 11, and 12?</i>

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
16	Module 3	Multiplication and Division with Units of 0, 1, 6, 7, 8, and 9	Lessons 16–19: Analysis of Patterns Using Units of 9, 0, and 1	<i>How can the properties of operations help us multiply and divide efficiently?</i>
17	Module 3	Multiplication with Multiples of 10; Module 3 Review	Lesson 20: Multiplication with Multiples of 10 and Further Application of Concepts Lessons 21–25: Multiplication with Multiples of 10 and Further Application of Concepts; Module 3 Review	<i>How can we determine which multiplication or division strategy is most efficient?</i>
18	Module 3 → 4	Module 3 Assessment; MOY MAP Growth; Begin Multiplication & Area	Module 3 Assessment MOY MAP Growth Lessons 1–3: Foundations for Understanding Area	<i>How can models, equations, and explanations communicate and justify our mathematical thinking?</i>

Differentiation Strategies by Topic

Quick supports and extensions teachers can pull from during each instructional block. Use alongside small-group time, centers, or independent work.

Topic	Support (Below Level)	Extension (Above Level)
Simplifying Strategies to Find Sums/Differences (Weeks 10–11)	Use place value disks to model composing/decomposing a ten or hundred step by step; keep measurement numbers within a smaller, friendly range.	Add/subtract mentally using compensation or simplifying strategies without disks; explain the strategy used in writing.
Two- and Three-Digit Measurement Addition/Subtraction (Weeks 11–12)	Use place value disks alongside the standard algorithm, modeling each regrouping step explicitly before recording it.	Solve measurement addition/subtraction problems requiring two regroupings; choose between mental math and the standard algorithm and justify the choice.
Multiplication/Division with Units of 6 and 8 (Weeks 13–14)	Build on known facts (e.g., use the 5s fact plus one more group to find a 6s fact); use arrays with rows highlighted.	Derive unknown facts from known facts using the distributive property in more than one way; explain the strategy in writing.
Multiplication/Division with the Unit of 7 (Weeks 14–15)	Use a times-table chart with known facts (2s, 5s, 10s) highlighted to help derive 7s facts; use skip counting with visual support.	Solve unknown 7s facts by combining two known facts (e.g., $5 \times 7 + 2 \times 7$); explain the reasoning without a chart.
Analysis of Patterns Using Units of 9, 0, and 1 (Weeks 15–16)	Use a hundreds chart to highlight the 9s pattern (tens digit increases, ones digit decreases); use concrete examples for the 0 and 1 rules.	Explain in writing why multiplying by 0 always gives 0 and multiplying by 1 keeps the number the same; find and describe the 9s pattern independently.
Multiplication with Multiples of 10 (Week 17)	Use base-10 blocks or place value disks to model multiplying a single digit by a multiple of ten (e.g., 3×20 as 3 groups of 2 tens).	Multiply larger numbers by multiples of 10 mentally using place value patterns; explain the pattern connecting basic facts to their multiples of ten.
Foundations for Understanding Area (Week 18)	Use square tiles to physically cover a shape and count them before introducing the term "square units"; keep shapes small and rectangular.	Find area by multiplying length $\times$ width without counting individual squares; explain the connection between area and multiplication arrays.

General Differentiation Toolkit

Support Strategies (Below Level / Emerging)

- Use concrete manipulatives (place value disks, measurement tools, arrays) before moving to pictorial or abstract representations.
- Pre-teach vocabulary — especially new terms like "multiple," "distribute," and measurement units — using visuals and hands-on modeling before the whole-group lesson.
- Anchor new multiplication/division facts to known facts (2s, 5s, 10s) rather than introducing them in isolation.
- Provide a completed worked example alongside a matching blank template for guided practice.
- Pair with a peer partner for turn-and-talk and modeling during hands-on measurement or multiplication tasks.
- Break two-step word problems into smaller, sequenced steps with checkpoints using Read–Draw–Write.

Extension Strategies (Above Level)

- Extend measurement addition/subtraction problems to require two regroupings, or multiplication facts beyond the units taught this quarter.
- Ask students to justify in writing why one strategy (known-fact derivation, distributive property) is more efficient than another for a given problem.
- Challenge students to represent the same fact multiple ways (array, equal groups, equation) and explain the connections.
- Have students create original word problems for a partner that require a specific measurement or multiplication strategy.
- Have students teach a strategy to a small group or lead a turn-and-talk explaining their reasoning.

Multilingual Learner / Language Support

- Pair new vocabulary (e.g., "multiple," "distribute," "estimate," metric unit names) with gestures, visuals, and native-language cognates where possible.
- Use sentence frames for explaining reasoning: "I know $_\times_\$, so $_\times_\$ must be $_\$." or "I measured using $_\$ because $_\$."
- Allow students to show understanding through drawings, manipulatives, or hands-on modeling before requiring a verbal or written explanation.
- Preview key vocabulary in a small group before it's introduced in the whole-class lesson.



Grade 3: **Mathematics**

Quarter 3: Curriculum & Pacing Guide

Quarter Overview

Students connect multiplication to area by measuring the space within rectangles using square units. They tile rectangles, create arrays, use multiplication to calculate area, and apply the distributive property to decompose complex figures and find their total area.

Students then develop an understanding of fractions as numbers by partitioning shapes and number lines into equal parts, identifying unit fractions, and representing fractions on a number line. They compare fractions, recognize equivalent fractions, and explore the relationship between the size and number of equal parts in a whole. Throughout the units, students solve real-world problems and use models, drawings, equations, and precise mathematical language to explain their reasoning.

Essential Questions

- What does area measure?
- Why is area expressed in square units?
- How are arrays, multiplication, and area connected?
- How can the dimensions of a rectangle help us determine its area?
- How can rectangles with the same area have different dimensions?
- How can we decompose a figure to find its total area?
- How does the distributive property help us solve area problems?
- How can multiplication help us solve real-world measurement problems?
- What makes the parts of a whole equal?
- What is a unit fraction, and how does it help us build other fractions?
- How can fractions be represented with shapes and on number lines?
- How does the denominator describe the size of the fractional units?
- How does the numerator describe the number of fractional units?
- How can different fractions represent the same amount?
- How can models and number lines help us compare fractions?
- What happens to the size of each part when a whole is divided into more equal parts?

Standards for Mathematical Practice (Used Throughout)

- MP1 — Make sense of problems and persevere in solving them
- MP2 — Reason abstractly and quantitatively
- MP3 — Construct viable arguments and critique the reasoning of others
- MP4 — Model with mathematics
- MP5 — Use appropriate tools strategically
- MP6 — Attend to precision
- MP7 — Look for and make use of structure
- MP8 — Look for and express regularity in repeated reasoning

Third Grade Quarter 3: *I can statements* (19-27 Weeks)

- I can explain what area measures and why it's counted in square units.
 - I can show how arrays, multiplication, and area are connected.
 - I can use the dimensions of a rectangle to find its area.
 - I can decompose a figure into smaller rectangles to find its total area.
 - I can use the distributive property to solve area problems.
 - I can partition a whole into equal parts.
 - I can identify a unit fraction and use it to build other fractions.
 - I can show fractions using shapes and number lines.
 - I can compare fractions using models or number lines.
 - I can recognize equivalent fractions that represent the same amount.
-

Module 4 Reference — Multiplication & Area (Weeks 19–22)

Standards Addressed

- CC.2.2.3.A.1 — Algebraic Concepts: represent and solve problems involving multiplication, including area contexts
- CC.2.2.3.A.2 — Algebraic Concepts: apply properties of operations (including the distributive property) to find area
- CC.2.2.3.A.4 — Algebraic Concepts: determine an unknown whole number in a multiplication equation involving area
- CC.2.4.3.A.4 — Data & Measurement: solve real-world problems involving area
- CC.2.4.3.A.5 — Data & Measurement: relate area to the operations of multiplication and addition

Vocabulary

Content vocabulary (area, area model, length, side length, square centimeter, square inch, square units, unit square, width) was introduced in Quarter 2 — see the Q2 guide.

Familiar: array, attribute, break apart and distribute, line plot, parallel, polygon, quadrilateral, rectangle, right angle, square, trapezoid

Academic: observe

Materials Needed

Centimeter tiles, square · Chart paper · Color tiles · Colored paper · Colored pencils, markers, pencils · Dry erase markers, erasers · Whiteboards · Envelopes · Highlighters · Index cards · Interlocking cubes · Rulers (inch and metric) · Scissors · Sticky notes

Curriculum Resources

Eureka Math² Module 4 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](https://www.happynumbers.com) · [iXL.com](https://www.ixl.com) · Student Learn Book — Module 4 / Teach Book · Eureka Math² numeral cards

Module 5 Reference — Fractions as Numbers (Weeks 22–27)

Standards Addressed

- CC.2.1.3.C.1 — Number & Operations: understand fractions as numbers, including unit fractions and fractions on a number line
- CC.2.3.3.A.2 — Geometry: partition shapes into parts with equal areas and express each part as a unit fraction
- CC.2.4.3.A.1 — Data & Measurement: represent measurement data (including fractional units) using line plots
- CC.2.4.3.A.4 — Data & Measurement: solve problems involving measurement, including fractional quantities

Vocabulary

Content: eighths, equivalent, fifths, fraction form, fraction greater than 1, fractional unit, ninths, sixths, tenths, unit fraction

Familiar: $>$, $=$, $<$ symbols, equal parts, equal shares, fourths, fraction, half, halves, half of, one third of, one fourth of, line plot, number line, partition, plot, thirds, tick mark, unit form, whole, whole number

Academic: identify

Materials Needed

Analog clock · Blank paper, chart paper · Clay, clear plastic cups · Colored pencils, pencils, crayons · Construction paper · Containers · Dry erase markers, erasers, whiteboards · Envelopes, index cards, sticky notes · Glue sticks, highlighters · Masking tape, paper circles, rectangles, strips · Ruler (inch and metric) · Sentence strips · Spool of string · Straws · Wax craft sticks

Curriculum Resources

Eureka Math² Module 5 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](#) · [iXL.com](https://www.ixl.com) · Student Learn Book — Module 5 / Teach Book · Eureka Math² numeral cards

9-Week Pacing at a Glance

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
19	Module 4	Multiplication & Area	Lessons 4–5: Foundations for Understanding Area Lessons 6–8: Concepts of Area Measurement	What does area measure? Why is area expressed in square units?
20	Module 4	Multiplication & Area	Lesson 9: Concepts of Area Measurement Lessons 10–12: Applying Properties of Operations to Area Lesson 13: Application of Area	How are arrays, multiplication, and area connected? How can the dimensions of a rectangle help us determine its area?
21	Module 4	Multiplication & Area	Lessons 14–15: Application of Area Lessons 16–18: Application of Area	How can rectangles with the same area have different dimensions? How can we decompose a figure to find its total area?
22	Module 4 → 5	Application of Area; Module 4 Review & Assessment; Begin Fractions as Numbers	Lesson 19: Application of Area; Module 4 Review Module 4 Assessment Lessons 1–2: Partition a Whole Into Equal Parts	How does the distributive property help us solve area problems? What makes the parts of a whole equal?
23	Module 5	Fractions as Numbers	Lessons 3–5: Partition a Whole Into Equal Parts Lessons 6–7: Unit Fractions and Their Relationship to the Whole	What is a unit fraction, and how does it help us build other fractions?
24	Module 5	Fractions as Numbers	Lessons 8–10: Unit Fractions and Their Relationship to the Whole Lessons 11–12: Fractions on the Number Line	How does the denominator describe the size of the fractional units? How does the numerator describe the number of fractional units?

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
25	Module 5	Fractions as Numbers	Lessons 13–16: Fractions on the Number Line Lesson 17: Comparing Fractions	<i>How can fractions be represented with shapes and on number lines?</i>
26	Module 5	Fractions as Numbers	Lessons 18–21: Comparing Fractions Lesson 22: Equivalent Fractions	<i>How can models and number lines help us compare fractions?</i>
27	Module 5	Fractions as Numbers — Equivalent Fractions	Lessons 23–27: Equivalent Fractions	<i>How can different fractions represent the same amount? What happens to the size of each part when a whole is divided into more equal parts?</i>

Differentiation Strategies by Topic

Quick supports and extensions teachers can pull from during each instructional block. Use alongside small-group time, centers, or independent work.

Topic	Support (Below Level)	Extension (Above Level)
Foundations for Area / Concepts of Area Measurement (Weeks 19–20)	Use square tiles to physically cover a rectangle and count them before introducing "square units"; keep rectangles small.	Predict the area of a rectangle before tiling it, then check by counting; explain why area is measured in square units rather than linear units.
Applying Properties of Operations to Area (Week 20)	Use an array model to show length $\times$ width as repeated addition before introducing the multiplication equation.	Use the distributive property to break a rectangle into two smaller rectangles and find area both ways; explain why the totals match.
Application of Area — Decomposing Figures (Weeks 20–22)	Provide a composite figure with the decomposition lines already drawn; find the area of each smaller rectangle before adding.	Decompose a complex figure into rectangles independently, choosing where to split it; solve real-world area word problems with two steps.
Partition a Whole Into Equal Parts (Weeks 22–23)	Fold or cut physical shapes into equal parts hands-on before drawing; use the sentence frame: "This whole is divided into ___ equal parts."	Partition the same whole into different numbers of equal parts and compare the size of each part; explain why more parts means smaller pieces.
Unit Fractions and Their Relationship to the Whole (Weeks 23–24)	Use fraction strips or circles to build a whole from unit fractions one piece at a time, naming each piece as it's added.	Build fractions greater than 1 using unit fractions; explain how the denominator and numerator relate to the size and number of parts.
Fractions on the Number Line (Weeks 24–25)	Use a physical number line (string or tape) with endpoints and the halfway point marked; place unit fractions one at a time with teacher modeling.	Plot fractions greater than 1 on a number line independently; explain how the number line shows a fraction as a distance from zero.
Comparing Fractions (Weeks 25–26)	Compare fractions with the same denominator first using fraction strips placed side by side; use the same-numerator case next with a visual model.	Compare fractions with different numerators and denominators using benchmark fractions (e.g., $\frac{1}{2}$) or common denominators; justify comparisons in writing.
Equivalent Fractions (Weeks 26–27)	Use fraction strips or circles to physically overlay two fractions and see that they cover the same amount; start with familiar pairs ($\frac{1}{2} = \frac{2}{4}$).	Generate a set of equivalent fractions for a given fraction; explain using a number line or area model why two fractions are equivalent.

General Differentiation Toolkit

Support Strategies (Below Level / Emerging)

- Use concrete manipulatives (square tiles, fraction strips, physical number lines) before moving to pictorial or abstract representations.
- Pre-teach vocabulary — especially new terms like "unit fraction," "equivalent," and "decompose" — using visuals and hands-on modeling before the whole-group lesson.
- Keep rectangle dimensions or fraction denominators small and familiar while a skill is new, then extend once secure.
- Provide a completed worked example alongside a matching blank template for guided practice.
- Pair with a peer partner for turn-and-talk and modeling during hands-on area or fraction tasks.
- Break multi-step area or fraction problems into smaller, sequenced steps with checkpoints.

Extension Strategies (Above Level)

- Extend area tasks to more complex composite figures, or fraction tasks to fractions greater than 1.
- Ask students to justify in writing why one strategy (decomposing a figure, using a benchmark fraction) is more efficient than another.
- Challenge students to represent the same area or fraction multiple ways (array, equation, number line, model) and explain the connections.
- Have students create original word problems (area or fractions) for a partner to solve.
- Have students teach a strategy to a small group or lead a turn-and-talk explaining their reasoning.

Multilingual Learner / Language Support

- Pair new vocabulary (e.g., "unit fraction," "equivalent," "decompose," "square units") with gestures, visuals, and native-language cognates where possible.
- Use sentence frames for explaining reasoning: "The area is ___ square units because ___." or "___ and ___ are equivalent because ___."
- Allow students to show understanding through drawings, manipulatives, or hands-on modeling before requiring a verbal or written explanation.
- Preview key vocabulary in a small group before it's introduced in the whole-class lesson.



Grade 3: **Mathematics**

Quarter 4: Curriculum & Pacing Guide

Quarter Overview

Students apply mathematical reasoning to concepts involving time, money, geometry, perimeter, and data. They tell time to the nearest minute and use number lines to solve problems involving unknown start times, end times, and elapsed times. Students analyze, classify, draw, and compose two-dimensional shapes based on attributes such as side lengths, parallel sides, and angles.

They develop an understanding of perimeter, determine unknown side lengths, and explore relationships between area and perimeter. Students also collect, represent, and interpret categorical and measurement data using scaled picture graphs, scaled bar graphs, and line plots. Throughout the module, they apply all four operations to real-world problems and strengthen computational fluency.

Essential Questions

- How can a number line help us tell time and solve elapsed-time problems?
- How can we determine an unknown start time, end time, or amount of elapsed time?
- How can addition and subtraction help us solve problems involving time and money?
- Which attributes can be used to describe and classify two-dimensional shapes?
- How can shapes with the same name look different?
- How can polygons be composed and decomposed to create other shapes?
- What is perimeter, and how can it be measured or calculated?
- How can known side lengths help us determine unknown measurements?
- What is the relationship between area and perimeter?
- How can rectangles have the same area but different perimeters?
- How can rectangles have the same perimeter but different areas?
- How can measurement and categorical data be collected and organized?
- How can line plots represent measurements involving halves and fourths?
- How do scaled picture graphs and bar graphs represent quantities?
- How can graphs and line plots help us answer questions and solve problems?
- How can we determine which operation or strategy is most appropriate for a real-world problem?

Standards for Mathematical Practice (Used Throughout)

- MP1 — Make sense of problems and persevere in solving them
- MP2 — Reason abstractly and quantitatively
- MP3 — Construct viable arguments and critique the reasoning of others
- MP4 — Model with mathematics
- MP5 — Use appropriate tools strategically
- MP6 — Attend to precision
- MP7 — Look for and make use of structure
- MP8 — Look for and express regularity in repeated reasoning

Third Grade Quarter 4: *I can statements* (28-36 Weeks)

- I can tell time to the nearest minute.
 - I can solve problems about start time, end time, and elapsed time.
 - I can identify and classify two-dimensional shapes by their attributes.
 - I can explain how shapes with the same name can look different.
 - I can compose and decompose polygons to create new shapes.
 - I can measure or calculate the perimeter of a shape.
 - I can find an unknown side length using perimeter.
 - I can explain the relationship between area and perimeter.
 - I can collect and organize measurement and categorical data.
 - I can use scaled picture graphs, bar graphs, and line plots to answer questions.
-

Module 6 Reference — Geometry, Measurement, and Data (Weeks 28–35)

Standards Addressed

- CC.2.4.3.A.1 — Data & Measurement: represent and interpret measurement data using line plots (including halves and fourths)
- CC.2.4.3.A.2 — Data & Measurement: tell and write time to the nearest minute; solve elapsed-time problems
- CC.2.4.3.A.3 — Data & Measurement: solve problems involving addition and subtraction of time intervals
- CC.2.4.3.A.4 — Data & Measurement: represent and interpret categorical data using scaled picture graphs and scaled bar graphs
- CC.2.4.3.A.5 — Data & Measurement: solve real-world problems involving perimeter
- CC.2.4.3.A.6 — Data & Measurement: find the relationship between area and perimeter
- CC.2.3.3.A.1 — Geometry: reason about attributes of two-dimensional shapes and classify shapes by their attributes
- CC.2.2.3.A.3 — Algebraic Concepts: understand division as an unknown-factor problem (applied to perimeter/data contexts)
- CC.2.2.3.A.4 — Algebraic Concepts: determine an unknown whole number in an equation (applied to time, perimeter, and data)
- CC.2.1.3.B.1 — Number & Operations: use place value understanding (applied to data and graphing contexts)

Vocabulary

Content: diagonal, measurement data, perimeter, regular polygon, scaled picture graph

Familiar: analog clock, area, attribute, data, fraction, frequent, hexagon, octagon, key, line plot, scale, scaled bar graph, survey, parallel, parallelogram, pentagon, plot, right angle,

polygon, tangram, quadrilateral, square, quarter past, quarter to, rectangle, trapezoid, rhombus

Academic: no new academic vocabulary introduced

Materials Needed

Analog clock · Chart paper · Clear tape · Colored pencils · Dry erase markers, erasers · Whiteboards · Envelopes · Glue sticks · Highlighters · Index cards · Markers · Pencils · Rulers · Scissors · Sticky notes · String · Wax craft sticks

Curriculum Resources

Eureka Math² Module 6 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](#) · [iXL.com](https://www.ixl.com) · Student Learn Book — Module 6 / Teach Book · Time and Money Supplemental Workbook

9-Week Pacing at a Glance

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
28	Module 5 → 6	Module 5 Review & Assessment; Begin Geometry, Measurement, and Data	Module 5 Review Module 5 Assessment Lessons 1–3: Tell Time and Solve Time Interval Problems	<i>How can a number line help us tell time and solve elapsed-time problems?</i>
29	Module 6	Geometry, Measurement, and Data	Lessons 4–7: Tell Time and Solve Time Interval Problems Lesson 8: Attributes of Two-Dimensional Figures	<i>How can we determine an unknown start time, end time, or amount of elapsed time? Which attributes can be used to describe and classify two-dimensional shapes?</i>
30	Module 6	Geometry, Measurement, and Data	Lessons 9–12: Attributes of Two-Dimensional Figures Lesson 13: Problem Solving with Perimeter	<i>How can shapes with the same name look different? How can polygons be composed and decomposed to create other shapes?</i>
31	Module 6	Geometry, Measurement, and Data	Lessons 14–18: Problem Solving with Perimeter	<i>What is perimeter, and how can it be measured or calculated? What is the relationship between area and perimeter?</i>
32–33	—	PSSA Assessments	No new content lessons — statewide testing window	<i>Cumulative review and standardized assessment</i>
34	Module 6	Geometry, Measurement, and Data	Lessons 19–23: Collecting and Displaying Data	<i>How can measurement and categorical data be collected and organized? How do scaled picture graphs and bar graphs represent quantities?</i>
35	Module 6	Collecting and Displaying Data; Module 6 Review & Assessment	Lessons 24–26: Collecting and Displaying Data; Review Module 6 Module 6 Assessment	<i>How can graphs and line plots help us answer questions and solve problems?</i>
36	—	End of Year Assessments	EOY MAP Growth Assessments	<i>Cumulative review and year-end growth assessment</i>

Note: Weeks 32–33 are a combined testing window (PSSA Assessments) with no new content lessons.

Differentiation Strategies by Topic

Quick supports and extensions teachers can pull from during each instructional block. Use alongside small-group time, centers, or independent work.

Topic	Support (Below Level)	Extension (Above Level)
Tell Time and Solve Time Interval Problems (Weeks 28–29)	Use a physical analog clock with the minute hand highlighted; count by 5s around the clock face together before solving elapsed-time problems.	Solve elapsed-time problems that cross the hour or involve an unknown start time; use a number line to model and explain the strategy.
Attributes of Two-Dimensional Figures (Weeks 29–30)	Sort real shape models by one attribute at a time (number of sides, parallel sides, right angles); use a simple attribute checklist with pictures.	Sort shapes by multiple attributes at once; explain how two shapes with the same name can look different, and compose new shapes from smaller ones (e.g., tangrams).
Problem Solving with Perimeter (Weeks 30–31)	Use string or a measuring tool to physically trace the perimeter of a shape, counting each side aloud before adding.	Find an unknown side length given the perimeter and other sides; solve real-world perimeter problems requiring two steps.
Relationship Between Area and Perimeter (Week 31)	Build two rectangles with the same perimeter using a fixed length of string, then compare their areas using tiles.	Find multiple rectangles with the same area but different perimeters (or vice versa); explain the relationship in writing.
Collecting and Displaying Data (Weeks 34–35)	Collect data as a class on a simple question (2–3 categories) before graphing; provide a partially completed scaled graph template.	Collect and graph a data set independently with a scale other than 1; write and answer multi-step questions using the graph or line plot.

General Differentiation Toolkit

Support Strategies (Below Level / Emerging)

- Use concrete manipulatives (analog clocks, shape models, string for perimeter, tiles for area) before moving to pictorial or abstract representations.
- Pre-teach vocabulary — especially new terms like "perimeter," "diagonal," and "regular polygon" — using visuals and hands-on modeling before the whole-group lesson.
- Keep numbers, side lengths, or data sets small and familiar while a skill is new, then extend once secure.
- Provide a completed worked example alongside a matching blank template for guided practice.
- Pair with a peer partner for turn-and-talk and modeling during hands-on time, geometry, or data tasks.
- Break multi-step word problems into smaller, sequenced steps with checkpoints using Read–Draw–Write.

Extension Strategies (Above Level)

- Extend elapsed-time, perimeter, or data tasks to two-step problems or larger/more complex data sets.
- Ask students to justify in writing why two shapes with the same perimeter can have different areas (or vice versa).
- Challenge students to compose and decompose polygons in multiple ways and explain the relationships between the pieces.
- Have students create original word problems (time, perimeter, or data) for a partner to solve.
- Have students teach a strategy to a small group or lead a turn-and-talk explaining their reasoning.

Multilingual Learner / Language Support

- Pair new vocabulary (e.g., "perimeter," "attribute," "scale," shape names) with gestures, visuals, and native-language cognates where possible.
- Use sentence frames for explaining reasoning: "The perimeter is ___ because ___." or "This shape is a ___ because it has ___."
- Allow students to show understanding through drawings, manipulatives, or hands-on modeling before requiring a verbal or written explanation.
- Preview key vocabulary in a small group before it's introduced in the whole-class lesson.



Grade 4: **Mathematics**

Quarter 1: Curriculum & Pacing Guide

Quarter Overview

Students extend their understanding of the base-ten system to numbers through 1,000,000. They read, write, compare, compose, and decompose multi-digit numbers and recognize that a digit in one place has ten times the value it has in the place to its right. Students use number lines and place-value reasoning to round numbers and estimate solutions, and they develop fluency with multi-digit addition and subtraction.

They then apply place-value understanding, area models, arrays, and the distributive property to multiply and divide multi-digit numbers. Students explore multiplicative comparisons, factors and multiples, interpret remainders, and apply all four operations to solve multi-step problems. Throughout the units, students use models, equations, estimation, and precise mathematical language to explain and justify their reasoning.

Essential Questions

- How does the position of a digit determine its value?
- What patterns exist within the base-ten number system?
- How can multi-digit numbers be represented, composed, and decomposed in different ways?
- How can place value help us read, write, and compare numbers through 1,000,000?
- How can a number line help us round multi-digit numbers?
- How can estimation help us determine whether an answer is reasonable?
- How does place value support efficient addition and subtraction?
- How can we determine which operation or strategy is most efficient for solving a problem?
- How can we use all four operations to solve multi-step problems?
- How can multiplicative comparisons describe relationships between quantities?
- How can place-value units be composed and decomposed to make multiplication and division easier?
- How do arrays and area models represent multiplication and division?
- How does the distributive property help us multiply multi-digit numbers?
- How are multiplication and division related?
- How can factors and multiples help us understand relationships between numbers?
- What does a remainder represent, and how does the problem context affect its interpretation?
- How can models, equations, and explanations communicate and justify our mathematical reasoning?

Standards for Mathematical Practice (Used Throughout)

- MP1 — Make sense of problems and persevere in solving them
- MP2 — Reason abstractly and quantitatively
- MP3 — Construct viable arguments and critique the reasoning of others
- MP4 — Model with mathematics

- MP5 — Use appropriate tools strategically
- MP6 — Attend to precision
- MP7 — Look for and make use of structure
- MP8 — Look for and express regularity in repeated reasoning

Fourth Grade Quarter 1: *I can statements* (1-9 Weeks)

- I can explain how the position of a digit determines its value.
 - I can read, write, and compare multi-digit numbers up to 1,000,000.
 - I can use a number line to round multi-digit numbers.
 - I can use estimation to check if my answer is reasonable.
 - I can add and subtract multi-digit numbers using place value.
 - I can convert measurements using a metric conversion table.
 - I can describe multiplicative comparisons, like "3 times as many."
 - I can compose and decompose place value units to make multiplication and division easier.
 - I can use arrays and area models to represent multiplication and division.
 - I can use the distributive property to multiply multi-digit numbers.
-

Module 1 Reference — Place Value Concepts for Addition and Subtraction (Weeks 2–7)

Standards Addressed — Module 1

- CC.2.2.4.A.1 — Algebraic Concepts: use place value understanding and properties of operations to perform multi-digit arithmetic
- CC.2.4.4.A.1 — Data & Measurement: convert measurements within a single system (metric)
- CC.2.1.4.B.1 — Number & Operations: recognize that a digit in one place represents ten times what it represents in the place to its right
- CC.2.1.4.B.2 — Number & Operations: read, write, and compare multi-digit whole numbers using base-ten numerals, expanded form, and word form

Vocabulary

Content: billion, convert, ten thousand, hundred thousand, kilometer, million, mixed units

Familiar: bundle, centimeter, exchange, expanded form, gram, kilogram, mass, liter, meter, milliliter, regroup, rename, round, standard algorithm, standard form, unbundle, unit form, word form

Academic: express, justify

Materials Needed

Colored pencils · Dry erase markers, erasers · Whiteboards · Envelopes · Markers, pencils · Meter sticks · Rulers · Sticky notes

Curriculum Resources

Eureka Math² Module 1 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](https://www.happy-numbers.com) · [iXL.com](https://www.ixl.com) · Student Learn Book — Module 1 / Teach Book · Eureka Math² place value cards (to millions) · Eureka Math² place value disks (one to millions)

Module 2 Reference — Place Value Concepts for Multiplication and Division (Weeks 8–9, continues into Q2)

Standards Addressed — Module 2

- CC.2.1.4.B.2 — Number & Operations: read, write, and compare multi-digit whole numbers; understand place value structure
- CC.2.4.4.A.3 — Data & Measurement: apply the four operations to solve measurement-related word problems
- CC.2.2.4.A.1 — Algebraic Concepts: use place value understanding and properties of operations to perform multi-digit arithmetic, including multiplication

Vocabulary

Content: associative property of multiplication, composite number, distributive property, divisible, divisor, formula, partial product, partial quotient, prime number, term (in a pattern)

Familiar and academic vocabulary for Module 2 continues to be introduced as the module carries into Quarter 2; see the Q2 guide for the complete list.

Materials Needed

Chart paper · Tablet · Crayons · Dry erase markers, erasers · Whiteboards · Meter stick · Paper strips · Pencils · Rulers

Curriculum Resources

Eureka Math² Module 2 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](https://www.happy-numbers.com) · [iXL.com](https://www.ixl.com) · Student Learn Book — Module 2 / Teach Book · Eureka Math² place value disks sets (ones to millions)

9-Week Pacing at a Glance

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
1	Getting Started	Establish Routines & Classroom Procedures	No new content lessons this week	Set up math routines, tools, and norms for the year
2	Module 1	Place Value Concepts for Addition and Subtraction	Lessons 1–3: Multiplication as Multiplicative Comparison BOY MAP Growth Assessment	How can multiplicative comparisons describe relationships between quantities?
3	Module 1	Place Value Concepts for Addition and Subtraction	Lesson 4: Multiplication as Multiplicative Comparison Lessons 5–8: Place Value and Comparison within 1,000,000	How does the position of a digit determine its value? What patterns exist within the base-ten number system?
4	Module 1	Place Value Concepts for Addition and Subtraction	Lesson 9: Place Value and Comparison within 1,000,000 Lessons 10–12: Rounding Multi-Digit Whole Numbers	How can place value help us read, write, and compare numbers through 1,000,000? How can a number line help us round multi-digit numbers?
5	Module 1	Place Value Concepts for Addition and Subtraction	Lessons 13–15: Rounding Multi-Digit Whole Numbers Lessons 16–17: Multi-Digit Whole Number Addition and Subtraction	How can estimation help us determine whether an answer is reasonable? How does place value support efficient addition and subtraction?
6	Module 1	Place Value Concepts for Addition and Subtraction	Lessons 18–19: Multi-Digit Whole Number Addition and Subtraction Lessons 20–22: Multi-Digit Whole Number Addition and Subtraction	How can we determine which operation or strategy is most efficient for solving a problem?

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
7	Module 1	Metric Measurement Conversion Tables; Module 1 Assessment	Lessons 23–24: Metric Measurement Conversion Tables Module 1 Assessment	<i>How can we use all four operations to solve multi-step problems?</i>
8	Module 2	Place Value Concepts for Multiplication and Division	Lessons 1–3: Compose and Decompose Units of Ten Lessons 4–5: Multiplication of Tens and Ones by One-Digit Numbers	<i>How can place-value units be composed and decomposed to make multiplication and division easier?</i>
9	Module 2	Place Value Concepts for Multiplication and Division	Lessons 6–10: Multiplication of Tens and Ones by One-Digit Numbers	<i>How do arrays and area models represent multiplication and division? How does the distributive property help us multiply multi-digit numbers?</i>

Differentiation Strategies by Topic

Quick supports and extensions teachers can pull from during each instructional block. Use alongside small-group time, centers, or independent work.

Topic	Support (Below Level)	Extension (Above Level)
Multiplication as Multiplicative Comparison (Weeks 2–3)	Use bar models to physically show "3 times as many" with counters before writing the comparison as a multiplication equation.	Write and solve multiplicative comparison word problems with an unknown factor; compare additive vs. multiplicative comparison for the same numbers.
Place Value and Comparison within 1,000,000 (Weeks 3–4)	Use place value disks or a place value chart to build numbers one place at a time; compare two numbers by matching up place value columns.	Compare numbers given in different forms (standard, expanded, word) without converting both to standard form first; order a set of large numbers.
Rounding Multi-Digit Whole Numbers (Weeks 4–5)	Use a physical or drawn number line with the target numbers marked; model "which multiple of ten/hundred/thousand is it closer to" with a partner.	Round to any place value in a multi-digit number and explain the rule for numbers exactly halfway; use rounding to estimate sums and differences before calculating.
Multi-Digit Whole Number Addition and Subtraction (Weeks 5–6)	Use place value disks alongside the standard algorithm, modeling each regrouping step explicitly before recording it.	Solve multi-digit addition/subtraction problems requiring several regroupings; choose between the standard algorithm and mental strategies and justify the choice.
Metric Measurement Conversion Tables (Week 7)	Use a physical conversion chart with the relationships (e.g., 1 km = 1,000 m) posted and referenced together before converting independently.	Convert between metric units in multi-step measurement word problems; explain the pattern connecting place value to metric conversions.
Compose and Decompose Units of Ten (Week 8)	Use place value disks to physically group and ungroup tens; connect directly to the multiplication fact being modeled (e.g., 4 tens = 40).	Compose/decompose larger numbers (hundreds, thousands) using the same reasoning; explain the pattern connecting basic facts to their multiples of ten and a hundred.
Multiplication of Tens and Ones by One-Digit Numbers (Weeks 8–9)	Use an area model with the tens and ones parts separated and labeled before combining partial products.	Use the distributive property to multiply in more than one way and compare efficiency; solve problems with larger multi-digit factors.

General Differentiation Toolkit

Support Strategies (Below Level / Emerging)

- Use concrete manipulatives (place value disks, base-ten blocks, number lines) before moving to pictorial or abstract representations.
- Pre-teach vocabulary — especially new terms like "multiplicative comparison," "expanded form," and "distributive property" — using visuals and hands-on modeling before the whole-group lesson.
- Keep numbers within a smaller, familiar range (e.g., within 10,000) while a strategy is new, then extend to the full range (1,000,000) once secure.
- Provide a completed worked example alongside a matching blank template for guided practice.
- Pair with a peer partner for turn-and-talk and modeling during hands-on place-value or multiplication tasks.
- Break multi-step word problems into smaller, sequenced steps with checkpoints using Read–Draw–Write.

Extension Strategies (Above Level)

- Extend place-value or computation tasks beyond 1,000,000, or introduce problems requiring several regroupings.
- Ask students to justify in writing why one strategy (standard algorithm, mental math, distributive property) is more efficient than another for a given problem.
- Challenge students to represent the same number or product multiple ways (standard form, expanded form, area model, equation) and explain the connections.
- Have students create original word problems for a partner that require a specific strategy.
- Have students teach a strategy to a small group or lead a turn-and-talk explaining their reasoning.

Multilingual Learner / Language Support

- Pair new vocabulary (e.g., "convert," "expanded form," "distributive property," metric unit names) with gestures, visuals, and native-language cognates where possible.
- Use sentence frames for explaining reasoning: "The digit in the ___ place is worth ___ because ___." or "I rounded to ___ because ___."
- Allow students to show understanding through drawings, manipulatives, or hands-on modeling before requiring a verbal or written explanation.
- Preview key vocabulary in a small group before it's introduced in the whole-class lesson.



Grade 4: **Mathematics**

Quarter 2: Curriculum & Pacing Guide

Quarter Overview

Students use place-value understanding and properties of operations to develop efficient strategies for multiplication and division. They compose and decompose units, multiply by multiples of 10, explore factors and multiples, and use arrays and area models to represent calculations.

Students progress to multiplying numbers of up to four digits by one-digit numbers and multiplying two two-digit numbers. They also divide multi-digit numbers by one-digit divisors, determine quotients and remainders, and interpret remainders within problem contexts. Throughout the units, students use estimation, partial products, partial quotients, equations, and models to solve multiplicative comparisons and multi-step real-world problems.

Essential Questions

- How does place value help us multiply and divide multi-digit numbers?
- How can numbers be composed and decomposed to make calculations easier?
- What patterns occur when numbers are multiplied or divided by multiples of 10?
- How can arrays and area models represent multiplication and division?
- How does the distributive property help us solve multiplication problems?
- How are partial products related to multiplication?
- How can known facts help us solve more complex multiplication and division problems?
- What are factors and multiples, and how are they related?
- How can multiplication and division help us solve multi-step, real-world problems?
- How can we determine whether a number is prime or composite?
- How are multiplication and division related?
- How can place value and partial quotients help us divide multi-digit numbers?
- What does a remainder represent?
- How does the context of a problem determine how a remainder should be interpreted?
- How can estimation help us predict and evaluate a product or quotient?
- How can multiplicative comparisons describe relationships between quantities?
- How can we determine which strategy is most efficient for a particular problem?
- How can models, equations, and explanations communicate and justify our mathematical reasoning?

Standards for Mathematical Practice (Used Throughout)

- MP1 — Make sense of problems and persevere in solving them
- MP2 — Reason abstractly and quantitatively

- MP3 — Construct viable arguments and critique the reasoning of others
- MP4 — Model with mathematics
- MP5 — Use appropriate tools strategically
- MP6 — Attend to precision
- MP7 — Look for and make use of structure
- MP8 — Look for and express regularity in repeated reasoning

Fourth Grade Quarter 2: *I can statements* (10-18 Weeks)

- I can use place value to divide tens and ones by a one-digit number.
 - I can solve measurement problems using multiplication and division.
 - I can find factors and multiples of a number.
 - I can tell whether a number is prime or composite.
 - I can multiply and divide by multiples of 10, 100, and 1,000.
 - I can divide multi-digit numbers using place value and partial quotients.
 - I can multiply a number up to four digits by a one-digit number.
 - I can multiply two two-digit numbers using an area model or partial products.
 - I can figure out what a remainder means based on the problem.
 - I can estimate a product or quotient to check if my answer makes sense.
-

Module 2 Reference — Place Value Concepts for Multiplication and Division, continued (Weeks 10–13)

Standards Addressed

- CC.2.1.4.B.2 — Number & Operations: read, write, and compare multi-digit whole numbers; apply place value to multiplication and division
- CC.2.4.4.A.1 — Data & Measurement: convert measurements within a single system
- CC.2.4.4.A.3 — Data & Measurement: apply the four operations to solve measurement-related word problems
- CC.2.2.4.A.1 — Algebraic Concepts: use place value understanding and properties of operations to perform multi-digit arithmetic
- CC.2.2.4.A.2 — Algebraic Concepts: gain familiarity with factors and multiples
- CC.2.2.4.A.4 — Algebraic Concepts: generate and analyze a number or shape pattern (prime/composite numbers)

Vocabulary

Content vocabulary was introduced in Quarter 1 (see the Q1 guide) — this quarter adds:

Familiar: area, area model, commutative property of multiplication, factor, foot, inch, length, multiple, perimeter, product, quotient, total, width, yard

Academic: claim

Materials & Resources

Materials for this section match Quarter 1's Module 2 list — see the Q1 guide.

Eureka Math² Module 2 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](#) · [iXL.com](#) · Student Learn Book — Module 2 / Teach Book · Eureka Math² place value disks sets (ones to millions)

Module 3 Reference — Multiplication and Division of Multi-Digit Numbers (Weeks 14–18)

Standards Addressed

- CC.2.1.4.B.2 — Number & Operations: read, write, and compare multi-digit whole numbers; apply place value to multiplication and division
- CC.2.4.4.A.1 — Data & Measurement: convert measurements within a single system (customary units)
- CC.2.2.4.A.1 — Algebraic Concepts: use place value understanding and properties of operations to multiply and divide multi-digit numbers

Vocabulary

Content: cup, gallon, long division, ounce, pint, pound, quart, remainder

Familiar: algorithm, area, area model, array, associative property of multiplication, commutative property of multiplication, compare, customary units, distribute, distributive property, divide, division, equation, expression, factor, hours, minutes, seconds, length, metric units, mixed units, multiple, multiply, multiplication, partial product, partial quotient, perimeter, place value, product, total, width, yard, quotient, regroup, rename, rows, columns

Academic: indicate, interpret

Materials Needed

Chart paper · Dry erase markers, erasers · Pencils · Whiteboards · Timer

Curriculum Resources

Eureka Math² Module 3 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](#) · [iXL.com](#) · Student Learn Book — Module 3 / Teach Book · Eureka Math² place value disks sets (ones to millions)

9-Week Pacing at a Glance

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
10	Module 2	Place Value Concepts for Multiplication and Division, continued	Lessons 11–15: Division of Tens and Ones by One-Digit Numbers	<i>How does place value help us multiply and divide multi-digit numbers?</i>
11	Module 2	Place Value Concepts for Multiplication and Division	Lesson 16: Division of Tens and Ones by One-Digit Numbers Lessons 17–20: Problem Solving with Measurement	<i>How can arrays and area models represent multiplication and division?</i>
12	Module 2	Place Value Concepts for Multiplication and Division	Lessons 21–25: Factors and Multiples	<i>What are factors and multiples, and how are they related?</i>
13	Module 2	Factors and Multiples; Module 2 Assessment	Lesson 26: Factors and Multiples Module 2 Assessment	<i>How can we determine whether a number is prime or composite?</i>
14	Module 3	Multiplication and Division of Multi-Digit Numbers	Lessons 1–3: Multiplication and Division of Multiples of Tens, Hundreds, and Thousands Lessons 4–5: Division of Thousands, Hundreds, Tens, and Ones	<i>What patterns occur when numbers are multiplied or divided by multiples of 10?</i>
15	Module 3	Multiplication and Division of Multi-Digit Numbers	Lessons 6–8: Division of Thousands, Hundreds, Tens, and Ones Lessons 9–10: Multiplication of up to Four-Digit Numbers by One-Digit Numbers	<i>How can place value and partial quotients help us divide multi-digit numbers?</i>
16	Module 3	Multiplication and Division of Multi-Digit Numbers	Lessons 11–12: Multiplication of up to Four-Digit Numbers by One-Digit Numbers Lessons 13–15: Multiplication of Two-Digit Numbers by Two-Digit Numbers	<i>How does the distributive property help us solve multiplication problems? How are partial products related to multiplication?</i>

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
17	Module 3	Multiplication and Division of Multi-Digit Numbers	Lessons 16–17: Multiplication of Two-Digit Numbers by Two-Digit Numbers Lessons 18–20: Problem Solving with Measurement	<i>How can known facts help us solve more complex multiplication and division problems?</i>
18	Module 3	Remainders, Estimating, and Problem Solving; Module 3 Assessment	Lessons 21–24: Remainders, Estimating, and Problem Solving Module 3 Assessment	<i>What does a remainder represent?</i> <i>How does the context of a problem determine how a remainder should be interpreted?</i>

Differentiation Strategies by Topic

Quick supports and extensions teachers can pull from during each instructional block. Use alongside small-group time, centers, or independent work.

Topic	Support (Below Level)	Extension (Above Level)
Division of Tens and Ones by One-Digit Numbers (Weeks 10–11)	Use place value disks to physically divide tens and ones into equal groups, modeling each step before recording the equation.	Solve division problems mentally using place value reasoning without disks; explain the strategy in writing.
Problem Solving with Measurement (Weeks 11, 17)	Provide a reference chart of customary/metric unit relationships; solve one-step problems before combining into two-step problems.	Solve multi-step measurement problems involving unit conversions and one of the four operations; write an original measurement word problem.
Factors and Multiples (Weeks 12–13)	Use arrays or grouped counters to find factor pairs for a number hands-on; use a hundreds chart to find multiples by skip counting.	Determine whether a number is prime or composite and justify using factor pairs; find the greatest common factor of two numbers using known facts.
Multiplication/Division by Multiples of 10, 100, 1,000 (Week 14)	Use place value disks to model multiplying single digits by multiples of ten before extending to hundreds and thousands.	Multiply/divide larger numbers by multiples of 10, 100, and 1,000 mentally using place value patterns; explain the pattern in writing.
Division of Thousands, Hundreds, Tens, and Ones (Weeks 14–15)	Use place value disks alongside the division algorithm, modeling each step (divide, multiply, subtract, bring down) explicitly.	Divide four-digit numbers by a one-digit divisor using partial quotients or the standard algorithm; explain and interpret any remainder.
Multiplication of up to Four-Digit Numbers by One-Digit Numbers (Weeks 15–16)	Use an area model with each place value part labeled separately before combining partial products.	Use the standard algorithm alongside the area model and compare efficiency; solve problems with larger four-digit factors.
Multiplication of Two-Digit by Two-Digit Numbers (Weeks 16–17)	Use an area model divided into four parts (tens $\times$ tens, tens $\times$ ones, ones $\times$ tens, ones $\times$ ones) with each partial product labeled.	Use the standard algorithm and explain how it connects to the area model's partial products; solve problems with larger two-digit factors.
Remainders, Estimating, and Problem Solving (Week 18)	Use physical objects to act out a division story with leftovers, discussing what the leftover means in context (round up, round down, or keep as a remainder).	Solve real-world problems requiring interpretation of the remainder in different ways for different contexts; estimate quotients before dividing and check reasonableness.

General Differentiation Toolkit

Support Strategies (Below Level / Emerging)

- Use concrete manipulatives (place value disks, area models, arrays) before moving to pictorial or abstract representations.
- Pre-teach vocabulary — especially new terms like "factor," "multiple," "partial quotient," and "remainder" — using visuals and hands-on modeling before the whole-group lesson.
- Anchor new multiplication/division strategies to known facts and smaller numbers before extending to multi-digit numbers.
- Provide a completed worked example alongside a matching blank template for guided practice.
- Pair with a peer partner for turn-and-talk and modeling during hands-on multiplication or division tasks.
- Break multi-step word problems into smaller, sequenced steps with checkpoints using Read–Draw–Write.

Extension Strategies (Above Level)

- Extend multiplication/division problems to larger numbers or require multiple regroupings.
- Ask students to justify in writing why one strategy (area model, standard algorithm, partial quotients) is more efficient than another for a given problem.
- Challenge students to represent the same product or quotient multiple ways (area model, equation, partial products) and explain the connections.
- Have students create original word problems that require a specific strategy or remainder interpretation.
- Have students teach a strategy to a small group or lead a turn-and-talk explaining their reasoning.

Multilingual Learner / Language Support

- Pair new vocabulary (e.g., "factor," "multiple," "remainder," "quotient") with gestures, visuals, and native-language cognates where possible.
- Use sentence frames for explaining reasoning: "I know $__ \times __$, so $__$ must be $__$." or "The remainder means $__$ because $__$."
- Allow students to show understanding through drawings, manipulatives, or hands-on modeling before requiring a verbal or written explanation.
- Preview key vocabulary in a small group before it's introduced in the whole-class lesson.



Grade 4: **Mathematics**

Quarter 3: Curriculum & Pacing Guide

Quarter Overview

Students deepen their understanding of fractions by using visual models and number lines to generate equivalent fractions, compare fractions, and decompose fractions into sums of unit fractions. They add and subtract fractions and mixed numbers with like denominators and multiply fractions by whole numbers.

Students then connect fractions with denominators of 10 and 100 to decimal notation. They read, write, model, compare, and order decimal fractions and use place-value reasoning to understand the relationship among ones, tenths, and hundredths. Throughout the units, students solve real-world problems and use models, equations, benchmark numbers, and mathematical language to explain their reasoning.

Essential Questions

- How can visual models and number lines help us understand fractions?
- How can different fractions represent the same quantity?
- How can we generate and recognize equivalent fractions?
- How can benchmark fractions help us compare fractions?
- Why must fractions refer to the same whole when they are compared?
- How can a fraction be decomposed into a sum of smaller fractions?
- How is a fraction greater than one related to a mixed number?
- How can we add and subtract fractions and mixed numbers with like denominators?
- How can multiplication represent repeated addition of a fraction?
- How can we multiply a fraction by a whole number?
- How are fractions with denominators of 10 and 100 connected?
- How are fractions and decimals related?
- How does place value extend from whole numbers to tenths and hundredths?
- How can decimal fractions be represented with models, number lines, words, and symbols?
- How can we compare and order decimals?
- How can money and measurement contexts help us understand decimals?
- How can we determine whether a fractional or decimal answer is reasonable?
- How can models, equations, and explanations communicate and justify our mathematical reasoning?

Standards for Mathematical Practice (Used Throughout)

- MP1 — Make sense of problems and persevere in solving them

- MP2 — Reason abstractly and quantitatively
- MP3 — Construct viable arguments and critique the reasoning of others
- MP4 — Model with mathematics
- MP5 — Use appropriate tools strategically
- MP6 — Attend to precision
- MP7 — Look for and make use of structure
- MP8 — Look for and express regularity in repeated reasoning

Fourth Grade Quarter 3: *I can statements* (19-27 Weeks)

- I can decompose a fraction into a sum of smaller fractions.
 - I can generate and recognize equivalent fractions.
 - I can compare fractions using benchmark numbers or models.
 - I can add and subtract fractions with like denominators.
 - I can add and subtract mixed numbers with like denominators.
 - I can multiply a fraction by a whole number.
 - I can connect fractions with denominators of 10 and 100 to decimals.
 - I can represent decimals using models, number lines, words, and symbols.
 - I can compare and order decimals.
 - I can determine if a fractional or decimal answer is reasonable.
-

Module 4 Reference — Foundations of Fraction Operations (Weeks 19–25)

Standards Addressed

- CC.2.1.4.C.1 — Number & Operations: extend understanding of fraction equivalence and ordering
- CC.2.1.4.C.2 — Number & Operations: build fractions from unit fractions; add and subtract fractions and mixed numbers with like denominators; multiply a fraction by a whole number
- CC.2.4.4.A.4 — Data & Measurement: represent and interpret fractional measurement data using line plots

Vocabulary

Content: common denominator, common numerator, denominator, mixed number, numerator

Familiar: $>$, $=$, $<$ symbols, associative property of addition, associative property of multiplication, data, distributive property, equivalent fraction, fraction form, fraction greater than 1, fractional unit, line plots, multiple, plot, partition, unit form, unit fraction

Academic: no new academic vocabulary introduced

Materials Needed

Chart paper · Colored pencils · Dry erase markers, erasers · Whiteboards · Glue sticks · Index cards · Paper strips (2' × 11') · Paper strips (2 1/8" × 5 1/2") · Pencils · Rulers · Scissors · String

Curriculum Resources

Eureka Math² Module 4 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](#) · [iXL.com](https://www.ixl.com) · Student Learn Book — Module 4 / Teach Book

Module 5 Reference — Place Value Concepts for Decimal Fractions (Weeks 26–27, continues into Q4)

Standards Addressed

- CC.2.1.4.C.1 — Number & Operations: extend understanding of fraction equivalence, including fractions as decimals
- CC.2.1.4.C.3 — Number & Operations: use decimal notation for fractions with denominators of 10 or 100; compare two decimals to hundredths

Vocabulary

Content: decimal form, decimal fraction, decimal number, decimal, decimal point, hundredths, tenths

Familiar and academic vocabulary for Module 5 continues to be introduced as the module carries into Quarter 4; see the Q4 guide for the complete list.

Materials Needed

Blank paper · Dry erase markers, erasers · Whiteboards · Index cards · Meter stick · Pencils, scissors · String · Eureka Math² deci-disks sets · Decimal place value cards · Place value cards sets · Place value disks sets

Curriculum Resources

Eureka Math² Module 5 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](#) · [iXL.com](https://www.ixl.com) · Student Learn Book — Module 5 / Teach Book

9-Week Pacing at a Glance

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
19	Module 4	Foundations of Fraction Operations	Lessons 1–5: Fraction Decomposition and Equivalence MOY MAP Assessment	<i>How can visual models and number lines help us understand fractions? How can a fraction be decomposed into a sum of smaller fractions?</i>
20	Module 4	Foundations of Fraction Operations	Lesson 6: Fraction Decomposition and Equivalence Lessons 7–10: Equivalent Fractions	<i>How can different fractions represent the same quantity? How can we generate and recognize equivalent fractions?</i>
21	Module 4	Foundations of Fraction Operations	Lessons 11–12: Equivalent Fractions Lessons 13–15: Compare Fractions	<i>How can benchmark fractions help us compare fractions? Why must fractions refer to the same whole when they are compared?</i>
22	Module 4	Foundations of Fraction Operations	Lessons 16–17: Compare Fractions Lessons 18–20: Add and Subtract Fractions	<i>How can we add and subtract fractions and mixed numbers with like denominators?</i>
23	Module 4	Foundations of Fraction Operations	Lessons 21–22: Add and Subtract Fractions Lessons 23–25: Add and Subtract Mixed Numbers	<i>How is a fraction greater than one related to a mixed number?</i>
24	Module 4	Foundations of Fraction Operations	Lessons 26–30: Add and Subtract Mixed Numbers	<i>How can we determine whether a fractional or decimal answer is reasonable?</i>
25	Module 4	Repeated Addition of Fractions as Multiplication; Module 4 Assessment	Lessons 31–34: Repeated Addition of Fractions as Multiplication Module 4 Assessment	<i>How can multiplication represent repeated addition of a fraction? How can we multiply a fraction by a whole number?</i>
26	Module 5	Place Value Concepts for Decimal Fractions	Lessons 1–3: Exploration of Tenths	<i>How are fractions with denominators of 10 and 100 connected? How are fractions and decimals related?</i>

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
27	Module 5	Place Value Concepts for Decimal Fractions	Lesson 4: Exploration of Tenths Lessons 5–8: Tenths and Hundredths	<i>How does place value extend from whole numbers to tenths and hundredths?</i> <i>How can decimal fractions be represented with models, number lines, words, and symbols?</i>

Differentiation Strategies by Topic

Quick supports and extensions teachers can pull from during each instructional block. Use alongside small-group time, centers, or independent work.

Topic	Support (Below Level)	Extension (Above Level)
Fraction Decomposition and Equivalence (Weeks 19–20)	Use paper strips folded into equal parts to physically decompose a fraction into unit fractions before writing the equation.	Decompose a fraction into unit fractions in more than one way; explain how the decomposition connects to equivalent fractions.
Equivalent Fractions (Weeks 20–21)	Use fraction strips or circles to physically overlay two fractions and see that they cover the same amount; start with familiar pairs ($1/2 = 2/4$).	Generate a set of equivalent fractions for a given fraction using multiplication; explain using a number line why two fractions are equivalent.
Compare Fractions (Weeks 21–22)	Compare fractions with the same denominator or same numerator first using visual models placed side by side.	Compare fractions with different numerators and denominators using benchmark fractions (e.g., $1/2$) or common denominators; justify comparisons in writing.
Add and Subtract Fractions (Weeks 22–23)	Use fraction strips to physically combine or take away like-denominator fractions before recording the equation.	Solve fraction addition/subtraction problems that result in an answer greater than 1; explain how to rewrite the answer as a mixed number.
Add and Subtract Mixed Numbers (Weeks 23–24)	Add/subtract the whole numbers and fraction parts separately using a visual model before combining; keep denominators the same throughout.	Solve mixed number subtraction problems requiring regrouping (e.g., borrowing a whole as a fraction); explain the strategy in writing.
Repeated Addition of Fractions as Multiplication (Week 25)	Use a number line or fraction strips to model repeated addition of the same unit fraction before writing it as multiplication.	Multiply a fraction by a whole number using an equation without a visual model; write and solve an original real-world problem requiring this skill.
Exploration of Tenths (Weeks 26–27)	Use deci-disks or a fraction strip divided into 10 equal parts to connect tenths as a fraction to tenths as a decimal.	Convert between fraction and decimal form for tenths fluently; explain the relationship using place value language.
Tenths and Hundredths (Week 27)	Use a hundredths grid to shade tenths and hundredths, connecting the visual model to the decimal notation each time.	Compare and order decimals to the hundredths place; connect decimal place value to money and measurement contexts.

General Differentiation Toolkit

Support Strategies (Below Level / Emerging)

- Use concrete manipulatives (fraction strips, deci-disks, number lines) before moving to pictorial or abstract representations.
- Pre-teach vocabulary — especially new terms like "equivalent fraction," "unit fraction," and "decimal point" — using visuals and hands-on modeling before the whole-group lesson.
- Keep denominators small and familiar (e.g., halves, fourths, eighths) while a strategy is new, then extend to less familiar denominators.
- Provide a completed worked example alongside a matching blank template for guided practice.
- Pair with a peer partner for turn-and-talk and modeling during hands-on fraction or decimal tasks.
- Break multi-step word problems into smaller, sequenced steps with checkpoints using Read–Draw–Write.

Extension Strategies (Above Level)

- Extend fraction tasks to less common denominators, or decimal tasks to comparing and ordering several decimals.
- Ask students to justify in writing why two fractions are equivalent or why one comparison strategy is more efficient than another.
- Challenge students to represent the same fraction or decimal multiple ways (fraction, decimal, model, number line) and explain the connections.
- Have students create original word problems (fractions or decimals) for a partner to solve.
- Have students teach a strategy to a small group or lead a turn-and-talk explaining their reasoning.

Multilingual Learner / Language Support

- Pair new vocabulary (e.g., "equivalent," "denominator," "decimal," "tenths") with gestures, visuals, and native-language cognates where possible.
- Use sentence frames for explaining reasoning: "___ and ___ are equivalent because ___." or "The digit in the tenths place is ___ because ___."
- Allow students to show understanding through drawings, manipulatives, or hands-on modeling before requiring a verbal or written explanation.
- Preview key vocabulary in a small group before it's introduced in the whole-class lesson.



Grade 4: **Mathematics**

Quarter 4: Curriculum & Pacing Guide

Quarter Overview

Students extend place-value understanding to tenths and hundredths and connect decimal notation to fractions with denominators of 10 and 100. They read, write, model, compare, order, and add decimal fractions using place-value models, number lines, money, and measurement contexts.

Students then explore geometric figures by identifying and drawing points, lines, line segments, rays, and angles. They measure and draw angles with protractors, compose and decompose angles, determine unknown angle measures, and classify two-dimensional figures according to their sides, angles, parallel or perpendicular lines, and symmetry. Throughout the units, students solve real-world problems and explain their reasoning using models, equations, and precise mathematical language.

Essential Questions

- How are fractions with denominators of 10 and 100 related to decimal numbers?
- How does place value extend to tenths and hundredths?
- How can decimal fractions be represented with models, number lines, words, fractions, and decimal notation?
- How can equivalent fractions help us understand decimal numbers?
- How can we compare and order decimals?
- How can place value help us add tenths and hundredths?
- How can money and measurement help us understand decimal fractions?
- How can we determine whether a decimal answer is reasonable?
- How are points, lines, line segments, rays, and angles related?
- How can angles be identified, described, measured, and drawn?
- How is an angle related to a fraction of a complete turn?
- How can benchmark angles help us estimate angle measures?
- How can angles be composed and decomposed?
- How can addition and subtraction help us determine unknown angle measures?
- How can parallel, perpendicular, and intersecting lines help us describe geometric figures?
- How can attributes such as side lengths and angle measures help us classify triangles and other polygons?
- How can lines of symmetry be identified and drawn?
- How can models, measurements, equations, and explanations communicate and justify our mathematical reasoning?

Standards for Mathematical Practice (Used Throughout)

- MP1 — Make sense of problems and persevere in solving them
- MP2 — Reason abstractly and quantitatively
- MP3 — Construct viable arguments and critique the reasoning of others
- MP4 — Model with mathematics
- MP5 — Use appropriate tools strategically
- MP6 — Attend to precision
- MP7 — Look for and make use of structure
- MP8 — Look for and express regularity in repeated reasoning

Fourth Grade Quarter 4: *I can statements* (28-36 Weeks)

- I can compare and order decimals.
 - I can use place value to add tenths and hundredths.
 - I can identify and describe points, lines, line segments, rays, and angles.
 - I can measure and draw angles using a protractor.
 - I can use benchmark angles to estimate angle measures.
 - I can compose and decompose angles.
 - I can use addition and subtraction to find an unknown angle measure.
 - I can describe shapes using parallel, perpendicular, and intersecting lines.
 - I can classify triangles and other polygons by their sides and angles.
 - I can identify and draw lines of symmetry.
-

Module 5 Reference — Place Value Concepts for Decimal Fractions, continued (Weeks 28–29)

Standards Addressed

- CC.2.1.4.C.1 — Number & Operations: extend understanding of fraction equivalence, including fractions as decimals
- CC.2.1.4.C.2 — Number & Operations: build fractions from unit fractions; apply to decimal addition
- CC.2.1.4.C.3 — Number & Operations: use decimal notation for fractions with denominators of 10 or 100; compare two decimals to hundredths
- CC.2.4.4.A.1 — Data & Measurement: convert measurements within a single system, applied to money and decimal contexts

Vocabulary

Content vocabulary was introduced in Quarter 3 (see the Q3 guide) — this quarter adds:

Familiar: denominator, equivalent fraction, expanded form, fraction form, fraction greater than 1, mixed number, numerator, sum, total, unit form

Academic: no new academic vocabulary introduced

Materials & Resources

Materials for this section match Quarter 3's Module 5 list — see the Q3 guide.

Eureka Math² Module 5 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](#) · [iXL.com](https://www.ixl.com) · Student Learn Book — Module 5 / Teach Book · Eureka Math² deci-disks sets · Decimal place value cards · Place value cards sets · Place value disks sets

Module 6 Reference — Angle Measurements and Plane Figures (Weeks 29–35)

Standards Addressed

- CC.2.3.4.A.1 — Geometry: draw and identify points, lines, line segments, rays, and angles; classify shapes by properties of their lines and angles
- CC.2.3.4.A.2 — Geometry: classify two-dimensional figures by properties of their lines and angles
- CC.2.3.4.A.3 — Geometry: identify a line of symmetry for a two-dimensional figure
- CC.2.4.4.A.6 — Data & Measurement: measure angles and understand angle measure as additive; solve addition/subtraction problems to find unknown angles
- CC.2.2.4.A.1 — Algebraic Concepts: use place value understanding and properties of operations, applied to angle measurement problems

Vocabulary

Content: acute angle, acute triangle, adjacent angle, angle, complementary angles, degree, equilateral triangle, figure, intersect, isosceles triangle, line, line of symmetry, line segment, obtuse angle, parallel, perpendicular, point, ray, reflex angle, right angle, right triangle, scalene triangle, straight angle, supplementary angles, vertex

Familiar: benchmark, decompose, sum

Academic: construct, classify

Materials Needed

4" protractors · Blank paper · Cardstock circles (4" diameter, red and white) · Colored pencils · Dry erase markers, erasers · Whiteboards · Markers · Pencils · Rulers · Scissors · Sticky notes · Toothpicks

Curriculum Resources

Eureka Math² Module 6 Manual · [greatminds.org](https://www.greatminds.org) website · [Happy Numbers](#) · [iXL.com](https://www.ixl.com) · Student Learn Book — Module 6 / Teach Book

9-Week Pacing at a Glance

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
28	Module 5	Place Value Concepts for Decimal Fractions, continued	Lessons 9–11: Comparison of Decimal Numbers Lessons 12–13: Addition of Tenths and Hundredths	<i>How can we compare and order decimals? How can place value help us add tenths and hundredths?</i>
29	Module 5 → 6	Addition of Tenths and Hundredths; Module 5 Assessment; Begin Angle Measurements and Plane Figures	Lesson 14: Addition of Tenths and Hundredths Module 5 Assessment Lessons 1–2: Lines and Angles	<i>How are points, lines, line segments, rays, and angles related?</i>
30	Module 6	Angle Measurements and Plane Figures	Lessons 3–6: Lines and Angles Lesson 7: Angle Measurement	<i>How can angles be identified, described, measured, and drawn? How is an angle related to a fraction of a complete turn?</i>
31	Module 6	Angle Measurements and Plane Figures	Lessons 8–12: Angle Measurement	<i>How can benchmark angles help us estimate angle measures? How can angles be composed and decomposed?</i>
32–33	—	PSSA Assessments	No new content lessons — statewide testing window	<i>Cumulative review and standardized assessment</i>
34	Module 6	Angle Measurements and Plane Figures	Lessons 13–16: Determine Unknown Angle Measures Lesson 17: Two-Dimensional Figures and Symmetry	<i>How can addition and subtraction help us determine unknown angle measures? How can parallel, perpendicular, and intersecting lines help us describe geometric figures?</i>

Wk	Module	Focus	Lessons This Week	Guiding Question(s)
35	Module 6	Two-Dimensional Figures and Symmetry; Module 6 Assessment	Lessons 18–20: Two-Dimensional Figures and Symmetry Module 6 Assessment	How can attributes such as side lengths and angle measures help us classify triangles and other polygons? How can lines of symmetry be identified and drawn?
36	—	End of Year Review and Assessments	EOY Review and MAP Assessments	Cumulative review and year-end growth assessment

Note: Weeks 32–33 are a combined testing window (PSSA Assessments) with no new content lessons.

Differentiation Strategies by Topic

Quick supports and extensions teachers can pull from during each instructional block. Use alongside small-group time, centers, or independent work.

Topic	Support (Below Level)	Extension (Above Level)
Comparison of Decimal Numbers (Week 28)	Use place value disks or a hundredths grid to build each decimal and compare tenths first, then hundredths, with teacher modeling.	Compare decimals given in different forms (fraction, word, decimal) without converting both to the same form first; order a set of decimals.
Addition of Tenths and Hundredths (Weeks 28–29)	Use deci-disks to physically combine tenths and hundredths, regrouping 10 hundredths into a tenth when needed, before recording the equation.	Add decimals mentally using place value reasoning; solve real-world problems involving money that require adding tenths and hundredths.
Lines and Angles (Weeks 29–30)	Use real objects (rulers, toothpicks) to physically build and label points, lines, line segments, rays, and angles; use a checklist matching term to picture.	Identify and draw all the geometric elements (points, lines, angles) within a complex figure; explain the difference between a line, ray, and line segment in writing.
Angle Measurement (Weeks 30–31)	Use a physical protractor with the zero line highlighted; measure benchmark angles (90° , 180°) before measuring non-benchmark angles.	Compose and decompose angles by measuring the parts and finding the whole (or vice versa); estimate an angle measure before measuring and check accuracy.
Determine Unknown Angle Measures (Week 34)	Use a drawn diagram with known angle measures labeled; model writing an addition or subtraction equation for the unknown angle step by step.	Solve multi-step unknown angle problems involving several angles; write an original angle word problem for a partner to solve.
Two-Dimensional Figures and Symmetry (Weeks 34–35)	Use cardstock circles or shape cutouts to physically fold and find lines of symmetry; sort triangles by one attribute (side length or angle type) at a time.	Classify triangles and other polygons using multiple attributes at once (side length AND angle type); find all lines of symmetry in a complex figure and justify.

General Differentiation Toolkit

Support Strategies (Below Level / Emerging)

- Use concrete manipulatives (deci-disks, protractors, shape cutouts) before moving to pictorial or abstract representations.
- Pre-teach vocabulary — especially new geometry terms like "perpendicular," "complementary," and "line of symmetry" — using visuals and hands-on modeling before the whole-group lesson.
- Keep decimal place values or angle measures within a smaller, familiar range while a skill is new, then extend once secure.
- Provide a completed worked example alongside a matching blank template for guided practice.
- Pair with a peer partner for turn-and-talk and modeling during hands-on decimal or geometry tasks.
- Break multi-step word problems into smaller, sequenced steps with checkpoints using Read–Draw–Write.

Extension Strategies (Above Level)

- Extend decimal tasks to comparing/ordering several decimals, or angle tasks to multi-step unknown-angle problems.
- Ask students to justify in writing why a comparison, classification, or angle strategy is correct.
- Challenge students to represent the same decimal or angle multiple ways (model, equation, drawing) and explain the connections.
- Have students create original word problems (decimals or angles) for a partner to solve.
- Have students teach a strategy to a small group or lead a turn-and-talk explaining their reasoning.

Multilingual Learner / Language Support

- Pair new vocabulary (e.g., "perpendicular," "symmetry," "decimal," angle/triangle names) with gestures, visuals, and native-language cognates where possible.
- Use sentence frames for explaining reasoning: "This angle measures ___ degrees because ___." or "These two decimals are equal because ___."
- Allow students to show understanding through drawings, manipulatives, or hands-on modeling before requiring a verbal or written explanation.
- Preview key vocabulary in a small group before it's introduced in the whole-class lesson.