

Unit 1 -Big Ideas Chapters 1-4

Content Area: **Mathematics**
Course(s): **Mathematics 3**
Time Period: **September**
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Unit 1 Overview: Big Ideas Math Chapters 1-4

Unit 1--Big Ideas Math Chapters 1 -4

(Length of Time: 1st Trimester)

This unit includes:

- Understanding Multiplication and Division (Chapter 1)
- Multiplication Facts and Strategies (Chapter 2 & 3)
- Division Facts and Strategies (Chapter 4)

Priority Standards

MATH.3.OA.A	Represent and solve problems involving multiplication and division
MATH.3.OA.B	Understand properties of multiplication and the relationship between multiplication and division
MATH.3.OA.C	Multiply and divide within 100
MATH.3.OA.D	Solve problems involving the four operations, and identify and explain patterns in arithmetic

Unit 1 Learning Goals

Big Ideas Chapter	Content Focus	CCSS Priority Standard	Learning Goal
1	Understanding Multiplication	Standard: 3.OA.A - Represent and solve problems involving multiplication and division.	Students will be a -Represent and solve multiplication and div

		<p>Standard:</p> <p>3.OA.B - Understand properties of multiplication and the relationship between multiplication and division.</p>	<p>Students will be able to:</p> <p>-Apply properties of multiplication and division to multiply and divide within 100.</p> <p>-Understand division as an unknown factor problem.</p>
2	Multiplication Facts and Strategies	<p>Standard:</p> <p>3.OA.B - Understand properties of multiplication and the relationship between multiplication and division.</p> <p>Standard:</p> <p>3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.</p> <p>Standard:</p> <p>3.OA.D - Solve two-step word problems, including problems involving money, using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation.</p>	<p>Students will be able to:</p> <p>-Apply properties of multiplication and division to multiply and divide within 100.</p> <p>Students will be able to:</p> <p>-By the end of Grade 3, know from memory all products of two one-digit numbers.</p> <p>Students will be able to:</p> <p>-Solve two-step word problems using the four operations.</p>

		strategies including rounding.	
3	More Multiplication Facts and Strategies	<p>Standard:</p> <p>3.OA.A - Represent and solve problems involving multiplication and division.</p> <p>Standard:</p> <p>3.OA.B - Understand properties of multiplication and the relationship between multiplication and division.</p> <p>Standard:</p> <p>3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.</p> <p>Standard:</p> <p>3.OA.D - Solve two-step word problems, including problems involving money, using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess</p>	<p>Students will be able to:</p> <p>-Represent and solve multiplication and division problems.</p> <p>Students will be able to:</p> <p>-Apply properties of multiplication and division to solve problems.</p> <p>-Understand division as an unknown factor problem.</p> <p>Students will be able to:</p> <p>-By the end of Grade 3, know from memory all products of two one-digit numbers.</p>

		the reasonableness of answers using mental computation and estimation strategies including rounding.	Students will be able to: -Solve two-step word problems using the four operations.
4	Division Facts and Strategies	Standard: 3.OA.A - Represent and solve problems involving multiplication and division. Standard: 3.OA.B - Understand properties of multiplication and the relationship between multiplication and division. Standard: 3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers. Standard: 3.OA.D - Solve two-step word problems, including problems involving money, using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	Students will be able to: -Represent and solve problems involving multiplication and division. Students will be able to: -Apply properties of multiplication and division to solve problems. -Understand division as an unknown factor problem. Students will be able to: -By the end of Grade 3, know from memory all products of two one-digit numbers. Students will be able to:

			-Solve two-step word problems using all four operations.
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Learning Targets

Students will be able to:

- Divide a number by 2, 5, or 10.
- Divide a number by 3 or 4.
- Divide a number by 6 or 7.
- Divide a number by 8 or 9.
- Divide with 0 or 1.
- Multiply by 0 or 1.
- Multiply by 10.
- Multiply by 2.
- Multiply by 3.
- Multiply by 4.
- Multiply by 5.
- Multiply by 6.
- Multiply by 7.
- Multiply by 8.
- Multiply by 9.
- Multiply factors in any order.
- Use a number line to divide.
- Use a number line to multiply.
- Use a strategy to divide.
- Use a strategy to multiply two factors.
- Use an array to divide.
- Use an array to multiply.
- Use division to find the number of equal groups.

- Use division to find the size of equal groups.
- Use equal groups to multiply.
- Use facts families to relate multiplication and division.
- Use the Associative Property of Multiplication.
- Use the Distributive Property to multiply.
- Use the problem-solving plan to solve word problems.

Materials and Resources

- Big Ideas Materials
- Frax
- iReady
- Reflex Math

Unit Assessments (Required)

- Big Ideas Chapter 1 Assessment
- Big Ideas Chapter 2 Assessment
- Big Ideas Chapter 3 Assessment
- Big Ideas Chapter 4 Assessment

Strategies for Students in Need of Intervention

- Extended pacing of lessons
- Provide a multiplication chart
- Provide key vocabulary word definitions
- Provide written notes/ directions
- Small group instruction based on levels/abilities
- Use of approaching level questions/assignments
- Use of calculator
- Use of manipulatives
- Use of visual aids

Learning Plan and Pacing Guide

Trimester 1 ~ Big Ideas Chapters 1-4

Time Frame	Lesson	Standard(s)	Target
Big Ideas Chapter 1 (9 days)		Standard:	
	Lesson 1.1: Use Equal Groups to Multiply	3.OA.A - Represent and solve problems involving multiplication and division.	Target: I can use equal groups to multiply
		Standard:	
	Lesson 1.2: Use Number Lines to Multiply	3.OA.A - Represent and solve problems involving multiplication and division.	Target: Use a number line to multiply.
		Standard:	
	Lesson 1.3: Use Arrays to Multiply	3.OA.A - Represent and solve problems involving multiplication and division.	Target: I can use an array to multiply
		Standard:	
	Lesson 1.4: Multiply in Any Order	3.OA.A - Represent and solve problems involving multiplication and division.	Target: I can multiply factors in any order
		Standard:	
	Lesson 1.5: Divide: Size of Equal Groups	3.OA.A - Represent and solve problems involving multiplication and division.	Target: I can use division to find the size of equal groups
		Standard:	
	Lesson 1.6 Divide: Number of Equal Groups	3.OA.A - Represent and solve problems involving multiplication and division.	Target: I can use division to find the number of equal groups.
		Standard:	
	Lesson 1.7: Use a number line to divide	3.OA.A - Represent and solve problems involving multiplication and division.	Target: I can use a number line to divide.

Big Ideas Chapter 2 (9 days)	Lesson Chapter 1 Review	Standard: 3.OA.A - Represent and solve problems involving multiplication and division.	Target: I can use different strategies to multiply and divide
		Standard: 3.OA.A - Represent and solve problems involving multiplication and division.	
	Lesson Chapter 1 Assessment	Standard: 3.OA.B - Understand properties of multiplication and the relationship between multiplication and division. Standard: 3.OA.A - Represent and solve problems involving multiplication and division.	Target: I can use different strategies to multiply and divide
	Lesson 2.1: Multiply by 2	Standard: 3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.	Target: I can multiply by 2.
	Lesson 2.2: Multiply by 5	Standard: 3.OA.D - Solve two-step word problems, including problems involving money, using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. Standard: 3.OA.A - Represent and solve problems involving multiplication and division.	Target: I can multiply by 5.

Standard:

3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Standard:

3.OA.D - Solve two-step word problems, including problems involving money, using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Standard:

3.OA.A - Represent and solve problems involving multiplication and division.

Standard:

3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Lesson 2.3:
Multiply by 10

Target: I can multiply
by 10.

Standard:

3.OA.D - Solve two-step word problems, including problems involving money, using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Standard:

3.OA.A - Represent and solve problems involving multiplication and division.

Standard:

3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Lesson 2.4:
Multiply by 0 or 1

Target: I can multiply by 0 or 1.

Standard:

3.OA.D - Solve two-step word problems, including problems involving money, using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Standard:

3.OA.A - Represent and solve problems involving multiplication and division.

Standard:

Lesson 2.5: Use
the Distributive
Property

(2 Days)

3.OA.B - Understand properties of multiplication and the relationship between multiplication and division.

Target: I can use the Distributive Property to multiply..

Standard:

3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Standard:

3.OA.A - Represent and solve problems involving multiplication and division.

Standard:

3.OA.B - Understand properties of multiplication and the relationship between multiplication and division.

Target: I can use the problem-solving plan to solve word problems.

Lesson 2.6:
Problem Solving:
Multiplication

Standard:

3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Standard:

3.OA.A - Represent and solve problems involving multiplication and division.

Standard:

3.OA.B - Understand properties of multiplication and the relationship between multiplication and division.

Target: I can use different strategies to multiply and divide

Lesson Chapter 2
Review

Standard:

3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Standard:

3.OA.A - Represent and solve problems involving multiplication and division.

Target: I can use different strategies to multiply and divide

Lesson Chapter 2
Assessment

Standard:

3.OA.B - Understand properties of multiplication and the relationship between multiplication and division.

Standard:

3.OA.A - Represent and solve problems involving multiplication and division.

Big Ideas
Chapter 3

(12 days)

Lesson 3.1:
Multiply by 3

Standard:

3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Target: I can multiply by 3.

Standard:

3.OA.A - Represent and solve problems involving multiplication and division.

Lesson 3.2:
Multiply by 4

Standard:

3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Target: I can multiply by 4.

Standard:

3.OA.A - Represent and solve problems involving multiplication and division.

Lesson 3.3:
Multiply by 6

Standard:

3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from

Target: I can multiply by 6.

memory all products of two one-digit numbers.

Standard:

3.OA.A - Represent and solve problems involving multiplication and division.

Lesson 3.4:
Multiply by 7

Standard:

Target: I can multiply
by 7.

3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Standard:

3.OA.A - Represent and solve problems involving multiplication and division.

Lesson 3.5:
Multiply by 8

Standard:

Target: I can multiply
by 8..

3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Standard:

3.OA.A - Represent and solve problems involving multiplication and division.

Lesson 3.6:
Multiply by 9

Standard:

Target: I can multiply
by 9..

3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Standard:

Lesson 3.7: Any
Strategy to
Multiply

3.OA.A - Represent and solve problems involving multiplication and division.

Target: I can use any
strategy to multiply.

Standard:

3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Standard:

3.OA.A - Represent and solve problems involving multiplication and division.

Lesson 3.8:
Multiply Three
Factors

Standard:

3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Standard:

3.OA.A - Represent and solve problems involving multiplication and division.

Target: I can use the Associative Property to multiply three factors.

Lesson 3.9:
Problem-Solving
Word Problems
(2 Days)

Standard:

3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Standard:

3.OA.D - Solve two-step word problems, including problems involving money, using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Target: I can problem-solve multi-step word problems.

Lesson : Ch 3
Review Test A

Standard:

Target: I can multiply fluently within 100.

3.OA.A - Represent and solve problems involving multiplication and division.

Standard:

3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Standard:

3.OA.D - Solve two-step word problems, including problems involving money, using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Standard:

3.OA.A - Represent and solve problems involving multiplication and division.

Standard:

3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Lesson : Ch 3 Test
B

Target: I can multiply
fluently within 100.

Standard:

3.OA.D - Solve two-step word problems, including problems involving money, using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

		Standard:	
		3.OA.A - Represent and solve problems involving multiplication and division.	
Week of Conferences	Review Chapters 1-3 with Multiplication Games	Standard:	Target: I can use different strategies to multiply..
(5 days)		3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.	
		Standard:	
		3.OA.A - Represent and solve problems involving multiplication and division.	
Big Ideas Chapter 4	Lesson 1: Use Arrays to Divide	Standard:	Target: I can use arrays to divide.
(11 days)		3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.	
		Standard:	
		3.OA.A - Represent and solve problems involving multiplication and division.	
	Lesson 2: Relate Multiplication and Division	Standard:	Target: I can relate multiplication and division.
		3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.	
		Standard:	
	Lesson 3: Divide 2, 5, or 10	3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.	Target: I can divide by 2, 5, and 10.

	Standard:	
Lesson 4: Divide by 3 or 4	3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers. Standard:	Target: I can divide by 3 or 4.
Lesson 5: Divide by 6 or 7	3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers. Standard:	Target: I can divide by 6 or 7.
Lesson 6: Divide by 8 or 9	3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers. Standard:	Target: I can divide a number by 8 or 9
Lesson 7: Divide with 0 or 1	3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers. Standard:	Target: I can divide with 0 and 1.
	3.OA.A - Represent and solve problems involving multiplication and division.	
Lesson 8: Practice Division Strategies	Standard: 3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.	Target: I can use any strategy to divide.
Lesson: 4.9 Problem-Solving Division	Standard: 3.OA.A - Represent and solve problems involving multiplication and division.	Target: I can use problem solving strategies to divide when solving word

problems.

Standard:

3.OA.A - Represent and solve problems involving multiplication and division.

Lesson: Chapter 4
Review

Standard:

Target: I can use any strategy to divide.

3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Standard:

3.OA.A - Represent and solve problems involving multiplication and division.

Lesson: Chapter 4
Test

Standard:

Target: I can use any strategy to divide.

3.OA.C - With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that, one knows) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Technology Integration

- Big Ideas Online
- Frax
- Google Classroom
- iReady
- Reflex math : <https://www.reflexmath.com/>
- www.khanacademy.com

TECH.8.1.5.A.3

Use a graphic organizer to organize information about problem or issue.

TECH.8.1.5.C	Communication and Collaboration: Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.
TECH.8.1.5.E	Research and Information Fluency: Students apply digital tools to gather, evaluate, and use information.

21st Century Career Ready Practices

CAEP.9.2.4.A.2	Identify various life roles and civic and work - related activities in the school, home, and community.
CAEP.9.2.4.A.3	Investigate both traditional and nontraditional careers and relate information to personal likes and dislikes.
CAEP.9.2.4.A.4	Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.