Unit 1 -Big Ideas Chapters 1-4

Content Area: **Mathematics**
Course(s): **Mathematics 3**
Time Period: **September**
Length: **46 Instructional Days**
Status: **Published**

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
			Students will be a
1	**Understanding Multiplication**	**Standard:** 3.OA.A - Represent and solve problems involving multiplication and division.	-Represent and solve multiplication and div

		Standard: 3.OA.B - Understand properties of multiplication and the relationship between multiplication and division.	**Students will be a** -Apply properties of strategies to multiply -Understand division factor problem.
2	**Multiplication Facts and Strategies**	**Standard**: 3.OA.B - Understand properties of multiplication and the relationship between multiplication and division.	**Students will be a** -Apply properties of strategies 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.	**Students will be a** -By the end of Grade memory all products 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	**Students will be a** -Solve two-step wor four operations.

		strategies including rounding.	
3	**More Multiplication 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	**Students will be a** -Represent and solve multiplication and di **Students will be a** -Apply properties of strategies to multiply -Understand division factor problem. **Students will be a** -By the end of Grade memory all products numbers.

		the reasonableness of answers using mental computation and estimation strategies including rounding.	**Students will be a** -Solve two-step wor 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 a** -Represent and solve multiplication and div **Students will be a** -Apply properties of strategies to multiply -Understand division factor problem. **Students will be a** -By the end of Grade memory all products numbers. **Students will be a**

			-Solve two-step word[...] four operations.

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

multiplication and division.

	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
	Lesson Chapter 1 Assessment	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.A - Represent and solve problems involving multiplication and division.	Target: I can use different strategies to multiply and divide
Big Ideas Chapter 2 (9 days)	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. 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 multiply by 2.

	Standard:	
	3.OA.A - Represent and solve problems involving multiplication and division.	
Lesson 2.2: 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.	Target: I can 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.	
Lesson 2.3: Multiply by 10	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 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.

Lesson 2.5: Use the Distributive Property

(2 Days)

Standard:

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.

Lesson 2.6: Problem Solving: Multiplication	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.

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 Chapter 2 Review	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

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 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.	Target: I can use different strategies to multiply and divide
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. Standard: 3.OA.A - Represent and solve problems involving multiplication and division.	Target: I can multiply by 3.
	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. Standard:	Target: I can multiply by 4.
	Lesson 3.3: Multiply by 6	3.OA.A - Represent and solve problems involving multiplication and division.	Target: I can 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 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: 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 multiply by 7.
Lesson 3.5: Multiply by 8	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 multiply by 8..
Lesson 3.6: Multiply by 9	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	Target: I can multiply by 9..

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 3.7: 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.	Target: I can use any strategy to multiply.
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	Target: I can problem-solve multi-step word problems.

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 Review Test A

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.

Standard:

Lesson : Ch 3 Test B

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 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 (5 days)	Review Chapters 1-3 with Multiplication Games	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..
Big Ideas Chapter 4 (11 days)	Lesson 1: Use Arrays to Divide	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 arrays to divide.
	Lesson 2: Relate 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.	Target: I can relate multiplication and division.

	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.	Target: I can divide by 3 or 4.
	Standard:	
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.	Target: I can divide by 6 or 7.
	Standard:	
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.	Target: I can divide a number by 8 or 9
	Standard:	
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.	Target: I can divide with 0 and 1.
	Standard:	
Lesson 8: Practice Division Strategies	3.OA.A - Represent and solve problems involving multiplication and division.	Target: I can use any strategy to divide.
	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: 4.9 Problem-Solving Division	Standard: 3.OA.A - Represent and solve problems involving multiplication and 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.
Lesson: Chapter 4 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 any strategy to divide.
Lesson: Chapter 4 Test	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.

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.