

Brick Math
Grades 3-4 Alignment Document

Division	CCSS Alignment	NCTM Alignment Principles to Practice	Key Math practices	Vocabulary words
Lesson 1 Central Focus: Division Facts	3.OA.A.1 3.OA.A.2 3.OA.A.3 4.OA.B.4	<ul style="list-style-type: none"> Understand numbers, ways of representing numbers, relationship among numbers and number systems. Understand situations that entail multiplication and division, such as equal groupings of objects and sharing equally. Understand meanings of operations and how they relate to one another. 	MP1, MP4, MP3	Division, quotient, groups
Lesson 2 Central Focus: Factors	3.OA.A.1 3.OA.B.5 4.OA.B.4	<ul style="list-style-type: none"> Understand numbers, ways of representing numbers, relationship among numbers and number systems. Understand meanings of operations and how they relate to one another. 	MP 1, MP4, MP3	Factors, act families
Lesson 3 Central Focus: Defining what it means to divide	3.OA.A.2 3.OA.B.6	<ul style="list-style-type: none"> Understand meanings of operations and how they relate to one another. Understand situations that entail multiplication and division, such as equal groupings of objects and sharing equally. 	MP4, MP3	Dividend, divisor, quotient
Lesson 4 Central Focus: Equal Share/Partitive Division	3.OA.A.2 3.OA.A.4 3.OA.B.5 3.OA.B.6 4.NBT.B.5 4.NBT.B.6	<ul style="list-style-type: none"> Understand meanings of operations and how they relate to one another. Apply and adapt a variety of appropriate strategies to solve problems 	MP1, MP2, MP4, MP5, MP7, MP8	Partitive division, equal shares

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		<ul style="list-style-type: none"> Understand situations that entail multiplication and division, such as equal groupings of objects and sharing equally. 		
Lesson 5 Central Focus: Repeated subtraction or Quotitive Division	3.OA.A.2 3.OA.A.4 3.OA.B.5 3.OA.B.6	<ul style="list-style-type: none"> Apply and adapt a variety of appropriate strategies to solve problems 	MP 1, MP8, MP 3	
Lesson 6 Central Focus: Two-digit Division	3.OA.A.2 3.OA.A.4 3.OA.B.6 4.NBT.B.5 4.NBT.B.6	<ul style="list-style-type: none"> Apply and adapt a variety of appropriate strategies to solve problems 	MP4, MP5, MP3	Remainder
Lesson 7 Central Focus: Division of larger numbers	3.OA.A.1 3.OA.A.2 3.OA.A.3 4.OA.B.4 4.NBT.B.5 4.NBT.B.6 4.NBT.A.1	<ul style="list-style-type: none"> Apply and adapt a variety of appropriate strategies to solve problems. 	MP4, MP5, MP3	Place value Remainder
Multiplication	CCSS Alignment	NCTM alignment	Key Math Practices	Vocabulary
Lesson 1 Central focus: Factors	3.OA.A.1 3.OA.B.5 4.OA.B.4 4.OA.A.1	<ul style="list-style-type: none"> Understand various meanings of multiplication and division 	MP 1 MP 4 MP 5 MP 7	Factors
Lesson 2 Central focus: Set models	3.OA.A.1 3.OA.A.4 3.OA.B.5 3.OA.C.7 4.OA.A.1	<ul style="list-style-type: none"> Understand the effects of multiplying and dividing whole numbers Understand various meanings of multiplication and division 	MP4 MP8 MP7 MP3	Set, group, multiplicand, multiplier, product, factors
Lesson 3 Central focus: Fact Families	3.OA.A.1 3.OA.B.5 4.OA.B.4 4.OA.A.1	<ul style="list-style-type: none"> Identify and use relationships between operations, such as division as the inverse of multiplication, to solve 	MP1, MP 4 MP 5	Multiplier Multiplicand

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		problems;		
Lesson 4 Central focus: Sets and facts	3.OA.A.1 3.OA.A.4 3.OA.B.5 3.OA.C.7	<ul style="list-style-type: none"> Identify and use relationships between operations, such as division as the inverse of multiplication, to solve problems 	MP4 MP7 MP8 MP5	Multiplicand, multiplier, Frame of reference
Lesson 5 Central focus: Multiplication using place value	3.NBT.A.3	<ul style="list-style-type: none"> Apply and adapt a variety of appropriate strategies to solve problems 	MP4 MP7 MP 6 MP5	Multiplier Multiplicand Place value Combining like terms/bundling
Lesson 6 Central focus: Array/Area models	3.OA.A.3 3.OA.A.1 3.OA.B.5 4.OA.B.4 4.OA.A.1	<ul style="list-style-type: none"> Identify and use relationships between operations, such as division as the inverse of multiplication, to solve problems; 	MP4 MP6 MP7 MP5 MP3	Array
Lesson 7 Central focus: place value/area models	3.OA.A.1 3.OA.B.5 4.OA.B.4 4.OA.A.1	<ul style="list-style-type: none"> Identify and use relationships between operations, such as division as the inverse of multiplication, to solve problems 	MP4 MP 3 MP7 MP5	Multiplier Multiplicand
Lesson 8 Central focus: Two digit x one digit multiplication	4.NBT.B.5	<ul style="list-style-type: none"> Apply and adapt a variety of appropriate strategies to solve problems Identify and use relationships between operations, such as division as the inverse of multiplication, to solve problems 	MP4 MP5 MP6 MP3 MP8	Multiplier, Multiplicand
Lesson 9 Central focus: Multiplication of larger numbers	4.NBT.B.5	<ul style="list-style-type: none"> Apply and adapt a variety of appropriate strategies to solve problems Identify and use relationships between operations, such as division as the inverse of multiplication, to solve 	MP4 MP3 MP5 MP6 MP8	Multiplier, Multiplicand

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		problems		
Lesson 10 Central focus: two digit by two digit multiplication	4.NBT.B.5	<ul style="list-style-type: none"> Apply and adapt a variety of appropriate strategies to solve problems Identify and use relationships between operations, such as division as the inverse of multiplication, to solve problems 	MP4 MP3 MP5 MP6	Multiplier, Multiplicand
Basic Fractions	CCSS Alignment	NCTM alignment	Key Math Practice	Vocabulary
Lesson 1 Central focus What is a fraction?	3.NF.A.1	Understand numbers, ways of representing numbers, relationships among numbers and number systems	MP1 MP4 MP5 MP3	Numerator, denominator, whole
Lesson 2 Central focus: Benchmark fractions; decomposing a fraction into parts	3.NF.A.1	Understand numbers, ways of representing numbers, relationships among numbers and number systems	MP4 MP7 MP5	Different wholes Benchmark fraction
Lesson 3 Central focus: Adding with like denominators	4.NF.B.3 4.NF.B.3.B	Understand meanings for operations and how they relate to one another. Compute fluently	MP4 MP6 MP5	Sum Addend Numerator Denominator Like-denominator
Lesson 4 Central focus: Subtracting with like denominators	4.NF.B.3 4.NF.B.3.B	Understand meanings for operations and how they relate to one another. Compute fluently	MP4 MP6 MP5 MP3	Difference Minuend Subtrahend Denominator Numerator Like-denominators
Lesson 5 Central focus: Finding factors	3.NF.A.3.A	Understand meanings for operations and how they relate to one another. Use mathematical models to represent and understand quantitative relationships.	MP4 MP7 MP8 MP5	Factors
Lesson 6 Central focus:	3.NF.A.3.A 4.NF.A.1	Use mathematical models to represent and understand	MP4 MP2	Equivalent fractions

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equivalent fractions		quantitative relationships. Understand meanings for operations and how they relate to one another.	MP6 MP5	Factors
Lesson 7 Central focus: comparison of fractions	4.NF.A.1 4.NF.A.2	Use mathematical models to represent and understand quantitative relationships	MP4 MP2 MP6 MP5	Equivalent fractions Less than Greater than Comparing Ordering Factors
Lesson 8 This is primarily grade 5 Central focus: adding with unlike denominators	4.NF.A.2 4.NF.B.3.B	Understand meanings for operations and how they relate to one another. Compute fluently	MP4 MP6 MP5 MP3	Unlike denominator Sum Addend Equivalent fraction
Lesson 9 This is primarily grade 5 Central focus: Subtracting with unlike denominators	4.NF.A.2 4.NF.B.3.B	Understand meanings for operations and how they relate to one another. Compute fluently	MP4 MP6 MP5 MP3	Difference Minuend Subtrahend Unlike-denominator
Lesson 10 This primarily grades 5/6 Central focus: What is a mixed number?	4.NF.A.2 4.NF.B.3.B	Understand meanings for operations and how they relate to one another. Compute fluently	MP4 MP5 MP3	Mixed numbers
Lesson 11 This is primarily grades 5/6 Central focus: Adding & subtracting Mixed Numbers	4.NF.A.2 4.NF.B.3.B	Understand meanings for operations and how they relate to one another. Compute fluently	MP4 MP5 MP3	Different wholes Sum Addend Difference Subtrahend Minuend Mixed number/mixed fraction