Marietta City Schools
District Topic Planner

Fourth Grade

Topic Title	*Topic 7: Factors and Multiples*	Unit duration	*5 days*

Big Idea: Operations and Algebraic Thinking - Factors and Multiples

Georgia Standards of Excellence

4.OA.3 Solve multistep word problems with whole numbers and have whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a symbol or letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Gain familiarity with factors and multiples.

4.OA.4 Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.

Major work of the grade **Supporting standard** **Additional standard**

Informational Links

GSE Unit 4 Frameworks: Multiplication and Division of Whole Numbers
MCS Math Instructional Framework
MCS Math Instructional Framework with Resource Guidance

About the Math

GaDOE:Grade 4 Standards Overview Document
GaDOE: What Do Standards Look Like in Fourth Grade?

Topic 7: Learning Resources			
4.OA.3, 4.OA.4			
Lesson Number/Task/Module	**Lesson**	**Lesson Description**	**Standards Addressed**
Savvas 7-1	Understand Factors Savvas pp. 257-264	Students will use arrays to find the factors of a given whole number.	4.OA.4
Supplemental 7-1	Finding all the factors of a number Savvas Intervention Activity TE p. 264A	Students use counters to find all the factors of a number	4.OA.4
Savvas 7-2	Factors Savvas pp. 265-268	Students use multiplication to find all of the factor pairs for a whole number.	4.OA.4
Supplemental 7-2	Factor Trail	Students play a game to find factors	4.OA.4
Savvas 7-4	Prime and Composite Numbers Savvas pp. 273-276	Students use factors to determine whether a whole number greater than 1 is prime or composite.	4.OA.4
Supplemental 7-4	The Sieve of Eratosthenes GA DOE Framework pp. 42-47	Students find all the prime numbers from 1-100.	4.OA.4
Savvas 7-5	Multiples Savvas pp. 277-281	Students use multiplication to find multiples of a given whole number.	4.OA.4
Supplemental 7-5	Multiples on a Hundred Chart MIP Module 2 pp. 30-31	Students use their understanding of multiples to locate them on a hundreds chart.	4.OA.4

Additional Resources		
4.OA.3, 4.OA.4		
Standards Addressed	**Lesson**	**Lesson Description**
4.OA.4	GaDOE Practice Task: The Sieve of Eratosthenes	Students will find all the prime numbers between 0-100 using colored pencils and a hundreds chart.

Assessment Resources			
4.OA.3, 4.OA.4			
Type	**Location**	**Assessment Description**	**Standards Addressed**
Formative	MCS Mini	Students match a model with multiple of a number as well as identifying factor pairs.	4.OA.4
Formative	MCS Mini	Students provide a rationale for a number being prime or composite.	4.OA.4
Formative	MIP Module 2 p. 30	Students list multiples and explain why a number is not on their list.	4.OA.4
Formative	MIP Module 2 p. 33	Students determine if all factors are listed for a given number.	4.OA.4
Summative	Savvas Topic Assessment TE pp. 285-286	Students use a variety of tasks to demonstrate understanding of factors, multiples, prime numbers, and composite numbers. Digital and print form available through Savvas platform.	4.OA.3 4.OA.4
Summative	Savvas Topic Performance Task TE pp. 287-288	Students use a real-life scenario involving members of a marching band to demonstrate understanding of factor and multiples.	4.OA.3 4.OA.4