Marietta City Schools
District Topic Planner

First Grade

Topic Title	*Topic 5: Work with Addition and Subtraction Equations*	Unit duration	*10 days*

Big Idea: Operations and Algebraic Thinking - Creating Addition and Subtraction Equations

Georgia Standards of Excellence

Represent and solve problems involving addition and subtraction.

1.OA.1 – Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

1.OA.2 – Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Understand and apply properties of operations and the relationship between addition and subtraction.

1.OA.3 – Apply properties of operations as strategies to add and subtract.
Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)

Add and subtract within 20.

1.OA.5 – Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).

1.OA.6 – Add and subtract within 20.

a. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

b. Fluently add and subtract within 10.

Work with addition and subtraction equations.

1.OA.7 – Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *For example, which of the following equations are true and which are false*? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.

1.OA.8 – Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = □ – 3, 6 + 6 = Δ.*

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

Informational Links

GSE Unit 3 Frameworks: Operations and Algebraic Thinking
MCS Math Instructional Framework
MCS Math Instructional Framework with Resource Guidance

About the Math

GaDOE:Grade 1 Standards Overview Document
GaDOE: What Do Standards Look Like in First Grade?

Topic 5: Learning Resources

1.OA.1, 1.OA.2, 1.OA.3, 1.OA.5, 1.OA.6, 1.OA.7, 1.OA.8

Lesson Number/Task/Module	Lesson	Lesson Description	Standards Addressed
Savvas 5-1	Find the Unknown Numbers Savvas pp. 213-216	Students find an unknown number in an addition or subtraction equation that relates three whole numbers.	1.OA.5 1.OA.6
Supplemental 5-1	Part-Part-Whole Mats or Number Bond Graphic MIP Module 2 p. 40	Students can draw simple part-part-whole models to represent the number situation. Number bonds can also be a simple way for students to represent the numbers in a given equation.	1.OA.5 1.OA.6
Supplemental 5-1	Using Counters on the Floor Number Line MIP Module 2 pp. 46-47	Students model subtraction problems with the change unknown using counters and a floor number line.	1.OA.5 1.OA.6
Supplemental 5-1	Solving Unknowns in Different Positions MIP Module 1 pp. 24-26	Students are introduced to problems with unknowns in different positions and use beginning/middle/end graphic organizers to comprehend and retell the problems before solving them.	1.OA..5 1.OA.6
Savvas 5-2	True or False Equations Savvas pp. 217-220	Students focus on determining true or false equations.	1.OA.5 1.OA.7

Savvas 5-3	Make True Equations Savvas pp. 221-224	Students find the missing numbers in equations to make them true.	1.OA.5 1.OA.7
Supplemental 5-3	Balancing Equations MIP Module 4 pp. 96-97	Students gain insight about the meaning of the equal sign as they explore equations using a pan balance and determine if the equation is true or false. Modification: Explore more than +2. Students must understand that the equal symbols represent equivalence. Both sides of the equation must be balanced or have equal values.	1.OA.5 1.OA.7
Savvas 5-4	Add Three Numbers Savvas pp. 225-228	Students use different strategies to add three numbers.	1.OA.2 1.OA.3
Supplemental 5-4	Putting Together Three Addends MIP Module 1 pp. 21-22	Students solve a word problem that calls for combining three addends.	1.OA.2
Supplemental 5-4	Add Three Addends Suggested Activities	Students need multiple opportunities to work with manipulatives to add together three addends. Use Ziplock baggies filled with a few objects and allow students to select three and add together. Use three sets of snap cubes to put together to add three addends and record.	1.OA.2 1.OA.3
Savvas 5-5	Word Problems with Three Addends Savvas pp. 229-232	Students use different strategies to solve word problems with 3 addends.	1.OA.2 1.OA.3 1.OA.6
Supplemental 5-5	Word Problems with Three Addends Savvas p. 232A	Students use color tiles and three small boxes to write three addend equations. Modification: Teacher poses a three-addend word problem to solve with modeling. Extend to students creating a word problem and sharing with the group.	1.OA.2 1.OA.3 1.OA.6
Supplemental 5-5	Additional Practice Savvas p. 232B	Students use dominoes to explore and solve three addend problems. Model concrete and then move to representational, then abstract. Work with dominos, or other manipulatives to solve word problems with three addends.	1.OA.2 1.OA.3 1.OA.6

Savvas 5-6	Solve Addition and Subtraction Word Problems Savvas pp. 233-236	Students solve word problems involving comparisons.	1.OA.1
Supplemental 5-6	Act It Out- Show It-Draw It MIP Module 1 pp. 22-23	Students solve word problems through act it out, show it and draw it to understand the problem situation. Modification: Add three addends for addition word problems.	1.OA.1 1.OA2

Additional Resources		
1.OA.1, 1.OA.2, 1.OA.3, 1.OA.5, 1.OA.6, 1.OA.7, 1.OA.8		
Standards Addressed	**Lesson**	**Lesson Description**
1.OA.1	GaDOE Constructing Task - Result Unknown Problem Solving	Students will solve real word math problems using addition and subtraction.
1.OA.2, 1.OA.5	GaDOE Performance Task - Wheel Shop	Students will find combinations of numbers for a given sum.
1.OA.1, 1.OA.2, 1.OA.5	GaDOE Performance Task -Digging Dinosaurs	Students will practice with the flexible use of numbers.
1.OA.6	GaDOE Practice Task - Domino Fact Family	Students will construct fact families using dominoes.

Assessment Resources			
1.OA.1, 1.OA.2, 1.OA.3, 1.OA.5, 1.OA.6, 1.OA.7, 1.OA.8			
Type	**Location**	**Assessment Description**	**Standards Addressed**
Formative	MIP Module 6 p. 143	Students will solve simple addition and subtraction equations.	1.OA.3 1.OA.5 1.OA.6
Formative	MIP Module 6 p. 140	Students will solve a word problem that calls for them to subtract doubles.	1.OA.1 1.OA.3 1.OA.6
Summative	Savvas Topic Assessment TE pp. 245-246	Students will solve addition and subtraction equations. Digital or print form available through Savvas platform. Use MDIS to support student needs through data.	1.OA.1-8

Summative	Savvas Topic Performance Task TE pp. 247-248	Students will solve word problems about two brothers using addition and subtraction equations.	1.OA.1-8