



## Marietta City Schools District Topic Planner

*Fourth Grade*

<b>Topic Title</b>	<i>Topic 8: Extend Understanding of Fraction Equivalence and Ordering</i>	<b>Unit duration</b>	<i>15 days</i>
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### **Big Idea: Numbers and Operations - Fractions**

[Georgia Standards of Excellence](#)

#### **Extend understanding of fraction equivalence and ordering.**

■ 4.NF.1 Explain why two or more fractions are equivalent  $a/b = (n \times a)/(n \times b)$  ex:  $1/4 = (3 \times 1)/(3 \times 4)$  by using visual fraction models. Focus attention on how the number and size of the parts differ even though the fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions. Standard will require additional resources.

■ 4.NF.2 Compare two fractions with different numerators and different denominators, e.g., by using visual fraction models, by creating common denominators or numerators, or by comparing to a benchmark fraction such as  $1/2$ . Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols  $>$ ,  $=$ , or  $<$ , and justify the conclusions.

#### **Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.**

■ 4.MD.2 Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

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

### **Informational Links**

[GSE Unit 3 Frameworks: Fraction Equivalents](#)

[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 8: Learning Resources

#### 4.NF.1, 4.NF.2, 4.MD.2

Lesson Number/Task/Module	Lesson	Lesson Description	Standards Addressed
Savvas 8-1	Equivalent Fractions: Area Model Savvas pp. 289-296	Students will use area models to recognize and generate equivalent fractions.	4.NF.1
Supplemental 8-1	<a href="#">Equivalent Fractions</a> GA DOE Framework	This task allows students to explore the relationship between equivalent fractions and write equations for equivalent fractions using the product and quotient of a fraction equivalent to one.	4.NF.1
Savvas 8-2	Equivalent Fractions: Number Lines Savvas pp. 297-300	Students will use a number line to locate and identify equivalent fractions	4.NF.1
Supplemental 8-2	<a href="#">Number Line Equivalent Fractions</a>	Explain fraction equivalence using a tape diagram and the number line, and relate that to the use of multiplication and division.	4.NF.1
Savvas 8-3	Generate Equivalent Fractions: Multiplication Savvas pp. 300-304	Students will use multiplication to find equivalent fractions	4.NF.1
Supplemental 8-3	Paper Folding to Explore Equivalence MIP Module 7 pp. 137-129	Students fold paper to visually represent equivalence of fractions. They observe equivalent fractions to find a rule for generating them.	4.NF.1
Savvas 8-4	Generate Equivalent Fractions: Division Savvas p.305-308	Students will use division to find equivalent fractions	4.NF.1
Supplemental 8-4	<a href="#">Pattern Block Patterns</a>	Students will make equivalent fractions using pattern blocks.	4.NF.1

Savvas 8-5	Use Benchmarks to Compare Fractions Savvas pp. 309-312	Students will use benchmarks, area models, and number lines to compare fractions	4.NF.2
Supplemental 8-5	<a href="#">More or Less</a> GA DOE Framework	In this task, students will practice comparing fractions to a given amount.	4.NF.2
Savvas 8-6	Compare Fractions Savvas pp. 313-316	Students will use models or rename fractions to compare them.	4.NF.2
Supplemental 8-6	<a href="#">Making Fractions</a> GA DOE Framework	Students play a game to practice comparing fractions.	4.NF.2
4.MD.2	<a href="#">Their Fair Share</a>	In this task, students construct the idea that fractions are relationships and that the size or amount of the whole matters. The fair sharing context also provides learners with opportunities to explore how fractional parts can be equivalent without necessarily being congruent.	4.MD.2

### Additional Resources

#### 4.NF.1, 4.NF.2, 4.MD.2

Standards Addressed	Lesson	Lesson Description
4.NF.1	MIP Exploring Equivalence with 2-Color Counters pp. 139-140	Students explore equivalent fractions using 2-color counters and then test their understanding of using multiplication to generate equivalent fractions.
4.NF.2	MIP Finding a Common Denominator PP. 148-151	Students find a common denominator to explore fractions.
4.MD.2	<a href="#">Angie Buys Apples</a> Illustrative Math	This task gives students an opportunity to work with familiar fractions and decimals in a context involving money.

### Assessment Resources

#### 4.NF.1, 4.NF.2, and 4.MD.2

Type	Location	Assessment Description	Standards Addressed
Formative	MCS Mini	Students demonstrate understanding of fractional equivalency.	4.NF.1
Formative	MCS Mini	Students use benchmark fractions to compare given fractions.	4.NF.2

Formative	MIP Module 7 p. 141	Students create equivalent fractions.	4.NF.1
Formative	MIP Module 7 pp. 149-150	Students explain which fraction is greater and provide an explanation for their thinking.	4.NF.1
Summative	Savvas Topic Assessment TE pp. 325-326	Students use models and number sense to demonstrate conceptual understanding of fractions. Digital and print form available through Savvas platform.	4.NF.1 4.NF.2
Summative	Savvas Topic Performance Task TE pp. 327-328	Students use a real-life scenario involving students climbing a rope in the gym to demonstrate understanding of fractions.	4.NF.1 4.NF.2