Hattiesburg Public School District
Grade 6 Mathematics Units
2015 – 2016

Unit 2: Ratio & Proportions	Time Frame: 4 Weeks (Sept 14-Oct 9, 2015)
Content Standards	**Standards for Mathematical Practice**
Major Standards	(1) Make sense of problems and persevere in solving them.

6.RP.1 Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities.
 	
6.RP.2 Understand the concept of a unit rate a/b associated with a ratio a:b, and use rate language in the context of a ratio relationship.
 	
6.RP.3 Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.
   a. Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane and use table to compare ratios.
   b. Solve unit rate problems including those involving unit pricing and constant speed.
   c. Find a percent of a quantity as a rate per 100; solve problems involving finding the whole, given a part and the percent.
   d. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.
	(2) Reason abstractly and quantitatively.
	(3) Construct viable arguments and critique the reasoning of others.
	(4) Model with mathematics.
	(5) Use appropriate tools strategically.
	(6) Attend to precision.
	(7) Look for and make use of structure.
	(8) Look for and express regularity in repeated reasoning.

Supporting Standards	

Additional Standards

Pre-requisite Standards
5.NF.3 Interpret a fraction as division of the numerator by denominator (a/b = a ÷b). ~~Solve word problems involving division of whole numbers leading to answers inform of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem.~~
5.MD.1 Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real-world problems.

Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5
Lesson Topic: Introduce ratio by comparing with fraction. **Standard Ref:** 6.RP.1 **Resource: Engage NY: Module 1, Topic A, Lesson 1** **https://learnzillion.com/lessonsets/84-understand-ratios** **Strategy:**	**Lesson Topic**: Finding unit rate **Standard Ref:** 6.RP.2 **Resource: Engage NY: Module 1, Topic C, Lesson 16** **https://learnzillion.com/lessonsets/152-understand-unit-rate-and-use-rate-language-in-the-**	**Lesson Topic:** Finding equivalent ratios **Standard Ref:** 6.RP.3a **Resource:** Engage NY: Module 1, Topic B, Lesson 9 https://learnzillion.com/lessonsets/164-solve-ratio-problems-using-tables-and-the-coordinate-plane-1	**Lesson Topic:** Finding equivalent ratios with tape diagrams. **Standard Ref:**6.RP.3a **Resource: Engage NY: Module 1, Topic A, Lesson 5** https://learnzillion.com/lessonsets/164-solve-ratio-problems-using-tables-	**Lesson Topic:** Finding equivalent ratios with double number line diagrams. **Standard Ref:**6.RP.3a **Resource: Module 1, Topic B, Lessons 12 and 14** **https://learnzillion.com/lessonsets/164-solve-ratio-problems-using-tables-**

	context-of-a-ratio-relationship		and-the-coordinate-plane-1	and-the-coordinate-plane-1
Lesson 6	**Lesson 7**	**Lesson 8**	**Lesson 9**	**Lesson 10**
Lesson Topic: Finding missing values on ratio table **Standard Ref**: 6.RP.3a **Resource: Engage NY: Module 1, Topic B, Lesson 12** https://learnzillion.com/lessonsets/164-solve-ratio-problems-using-tables-and-the-coordinate-plane-1	**Lesson Topic:** Using unit rate for pricing. **Standard Ref:** 6.RP.3b **Resource: Engage NY: Module 1, Topic C, Lesson 20** https://learnzillion.com/lessonsets/157-solve-unit-rate-problems	**Lesson Topic:** Using unit rate for constant speed **Standard Ref:** 6.RP.3b **Resource: Engage NY: Module 1, Topic C, Lesson 22** https://learnzillion.com/lessonsets/157-solve-unit-rate-problems	**Lesson Topic:** Using rate to find percent. **Standard Ref:** 6.RP.3c **Resource: Engage NY: Module 1, Topic D, Lessons 24-29** https://learnzillion.com/lessonsets/181-use-ratios-to-solve-percent-problems	**Lesson Topic:** Using ratio to convert measurement units. **Standard Ref**: 6.RP.3d **Resource**: Engage NY: Module 1, Topic C, Lesson 21 https://learnzillion.com/lessonsets/164-solve-ratio-problems-using-tables-and-the-coordinate-plane-1
Performance Task	**FAL**			
http://www.insidemathematics.org/assets/common-core-math-tasks/truffles.pdf	http://map.mathshell.org/download.php?fileid=1610			