## **Mathematics Curriculum Planner**

Course: 7th Grade Math School Week #: 13 - 15

Idea/Topic: Ratios and Proportions Time: 3 weeks The students will be able to: TAKS & TEKS Use division to find unit rates Set up and solve proportions (cross-products) Solve application problems using proportions in Objective 1: Basic 7.1B, 7.2D areas such as speed, density, price, recipes, student-teacher ratios, scale drawings, unit Understandings: Objective 2: 7.3A, 7.3B conversions, etc. Find missing measures in similar figures.

Assessment Samples: 2004 7<sup>th</sup> Grade TAKS #1

2004 7th Grade TAKS #47 2004 / Grade TARS #1

Emmanuel can run 100 meters in 20 seconds. If he competes in the 400-meter race, about how many seconds will it take him to run the race?

A 5 sec B 4 sec C\* 80 sec D 20 sec An athlete on the school football team can run 20 yards in 2.9 seconds. During the last football game, the athlete ran 64 yards for a touchdown. If the athlete's rate of speed remained the same, about

how long did it take him to run for the touchdown?

A\* 9.3 sec

B 21.3 sec 2004 7<sup>th</sup> Grade TAKS #10 Mr. Cohen used 25 kilograms of fertilizer on his lawn. The fertilizer contained 2 kilograms of nitrogen. Which equation can be used to find x, the percent of nitrogen in the fertilizer Mr. Cohen used?  $F \frac{x}{100} = \frac{2}{25} \qquad G \frac{x}{100} = \frac{25}{2} \qquad H \frac{x}{2} = \frac{27}{100}$ C 58 sec D 19.2 sec

Links to prior learning (pre-requisite skills):	Essential Vocabulary:	
Converting between fractions, decimals, and	Ratio	Cross products
percents (Chapter 6, see 2.1B [Obj. 1])	Proportion	Estimation
	Part-to-whole	
	Percent = out of 100	
	Unit rate	
	Similar	
	Corresponding	