Mathematics Curriculum Planner

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

Idea/Topic: Ratios and Proportions Time: 3 weeks

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

Assessment Samples:

2004 7th Grade TAKS #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

2004 7th 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 $\frac{x}{100} = \frac{2}{25}$ G $\frac{x}{100} = \frac{25}{2}$ H $\frac{x}{2} = \frac{27}{100}$

2004 7th Grade TAKS #47
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
C 58 sec
D 19.2 sec

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