**17-18 JMS Lesson Plan**

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| **Teacher:** | Lori Holbert | **Subject:** | Math – Unit 3 Ratios and Proportional Relationships\*   |
| **Date:** | Quarter 3: 4-5 weeks (started before Holidays) | **Grade:** | 7 |
| **I Can…** | * Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. (Compute the unit rate as the **complex fraction** (1/2)/ (1/4) miles per hour, equivalently 2 miles per hour.)
* Decide whether two quantities are in a proportional relationship by 1) testing for equivalent ratios in a table or 2) graphing on a coordinate plane and observing whether the graph is a **straight line through the origin.**
* Identify the **constant of proportionality** (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.
 | **I Can…** | * Represent proportional relationships by equations.
* Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0, 0) and (1,r) where r is the unit rate.
* Use proportional relationships to solve multistep ratio and percent problems. (simple interest, tax, markups and markdowns, gratuities, commissions, and fees)
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| **Standard(s):** |  **MGSE7.RP.1 MGSE7.RP.2.a-d MGSE7.RP.3 MGSE7.G.1**Constant of Proportionality • Equivalent Fractions• Fraction • Multiplicative inverse • Percent rate of change • Proportion • Ratio • Similar Figures • Unit Rate • Scale factor |
| **Teacher Notes:** | \*corresponds to lessons from Holt Modules 7 and 9 |   |
| **DOK Level** | **Activities / Assignments / Questions** | **Assessment** |
| **­****REMEDIATION** | * number sense
* computation with whole numbers and decimals, including application of order of op.
* knowledge of equivalent fractions
* addition and subtraction of common fractions with like denominators
* recognize equivalency of fractions, decimals, and percents
 | [x]  Formative[ ]  Summative | [x] Selected Response[ ] Constructed Response[x] Verbal[ ] Rubric[x] Other – Teacher observation/checklist |
| **2** | * Calculate and compare unit rates (including complex fractions)
* Identify equivalent rates and proportions (direct proportions) using **tables, graphs, diagrams, or equations**
* Solve proportions using cross products
* Determine direct variation and the constant of variation using y=kx
* Calculate percent of change (increase or decrease)
 | [x]  Formative[x]  Summative | [x] Selected Response[x] Constructed Response[x] Verbal[ ] Rubric[x] Other – Teacher observation/checklist |
| **3** | * Formulate proportions in real world problems; justify thinking
* Interpret solutions to proportions in real world problems including problems involving unit rates and percents (saving money?)
* Interpret solutions to percent of change problems
* Differentiate between possible real world scenarios involving interest, commissions, etc. (which is the better deal; who makes more?)
 | [x]  Formative[x]  Summative | [x] Selected Response[x] Constructed Response[ ] Essay[x] Verbal[ ] Rubric[x] Other – Teacher observation/checklist |
| **4** | * Complete items from Ratios and Proportional Relationships Choice Board as appropriate (poster, game, letter, paragraph, story problems, quiz, PowerPoint,

 rap/rhyme, page)* Complete GADOE tasks as appropriate
 | [x]  Formative[x]  Summative | [ ] Selected Response[x] Constructed Response[ ] Essay[ ] Verbal[x] Rubric[ ] Other – Teacher observation/checklist |
| **Summarizing****Activities:** | Ticket out the DoorThumbs Up / Thumbs DownTeacher Questions/ChecklistQuizzesTestsTasks |
| **Resources:** | Center/station activities/gamesOutstanding Math Guide foldablesInteractive Math Notebook: class notes, examples, other foldablesIPAD – Apps / Kahoot Math in the Fast Lane: mathinfastlane.comHolt online resources (\***differentiated review worksheets**, **quizzes, and tests**): <http://my.hrw.com/> Khan Academy videos: <https://www.khanacademy.org/math/cc-seventh-grade-math>Study Jams interactive lessons: <http://studyjams.scholastic.com/studyjams/jams/math/index.htm>BrainPop videos: <https://www.brainpop.com/math/>MobyMax lessons: <https://www.mobymax.com/signin> Virtual Nerd videos: <http://www.virtualnerd.com/>PARCC practice Items: <https://prc.parcconline.org/assessments/parcc-released-items> USA Test Prep: <http://www.usatestprep.com/member-login>Tarver Academy: http://www.tarveracademy.com/ IXL: <https://www.ixl.com/> |
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