**Name\_\_\_Hannah Welsh\_\_\_\_\_\_\_**

**Lesson Plan Template**

**Learning Segment Focus\_\_\_Multiplying and Dividing Fractions Using Recipes\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Lesson \_5\_\_of\_\_5\_\_ Topic \_Fractions\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Grade\_\_\_6th\_\_**

**Student Outcomes**

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| Specific learning **objectives** for this lesson. | Students will:   * Create scaled recipes using multiplication and division of fractions and mixed numbers |
| Justify how learning tasks are appropriate using examples of **students’ prior academic learning**. | Students will have had previous lessons to develop skills on   * Understanding ratio relationships * Understanding and applying ratio vocabulary and reasoning * Solving real world mathematical problems * Multiplying and dividing fractions |
| Justify how learning tasks are appropriate using examples of **students’ personal, cultural, linguistic, or community assets**. |  |

**State Academic Content Standards**

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| List the **state academic content standards** with which this lesson is aligned. Include abbreviation, number & text of the standard(s). | * Ar.Math.Content.6.RP.A.1 Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. * AR.Math.Content.6.RP.A.2 Understand the concept of a unit rate a/b associated with a ratio a:b with b ≠ 0 and use rate language in the context of a ratio relationship. * AR.Math.Content.6.RP.A.3 Use ratio and rate reasoning to solve real-world and mathematical problems. * AR. Math.Content.6.NS.A.1 Interpret and compute quotients of fractions and Solve word problems involving division of fractions by fractions (e.g., by using various strategies, including but not limited to, visual fraction models and equations to represent the problem) |

**Key Vocabulary**

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| What **vocabulary terms/content specific terminology** must be addressed for students to master the content? | **Ratio, Fraction, Improper Fraction, Mixed Number, Numerator, Denominator, Multiplication, Division** |

**Academic Language Support**

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| What are the **Academic Language Function(s)** (the content and language focus of the learning task represented by the active verbs within the learning objectives/outcomes) and explain how they are utilized in the lesson plan?  What planned **Academic Language Supports** will you use to assist students in their understanding of key academic language to express and develop their content learning and to provide varying supports for students at different levels of Academic Language development? How do these supports address all three **Academic Language Demands (vocabulary, syntax, and discourse)?** | There will be a word wall posted in the classroom with vocabulary for the students.  It will contain both English and Spanish.  Each vocabulary word will have a related photo posted and labeled on the word wall.  I will have students working in groups this project.  This will allow for students to collaborate with their peers, so students who may struggle with academic language will have an opportunity to develop a high level of language throughout the interactions. |

**Materials**

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| Materials needed by the teacher for this lesson. (such as books, writing materials, computers, models, colored paper, etc.) | Google Classroom  Student Instructions  Craft materials for students to create posterboard projects  Students  Student Reflections Assignment upload (Google Classroom)  Student Feedback assignment upload (Google Classroom) |
| Materials needed by **students** for this lesson. (computers, journals, textbook, etc.) | Google Classroom  iPads  iPad app Clips  Paper  Pencil |

**Lesson Timeline with Instructional Strategies & Learning Tasks**

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| **Amount of Time** | **Teaching & Learning Activities (This should be a BULLETED LIST)** | **Describe what YOU (teacher) will be doing and/or what STUDENTS will be doing during this part of the lesson. (This should be VERY DETAILED)** |
|  | **Introduction**:  **Introduction to Narrative** | Students will begin by opening Google Classroom to view the instructions posted for this project.  I will introduce the narrative while students review it silently to themselves.  Today, our students will become chefs, and they are planning on hosting a few dinner parties. One party they will be hosting is for their large family. The second party they will be hosting is for their small group of friends. Your job is to find the perfect recipe for this dinner party and make sure that you have just the right about of servings for everyone.  Students will need to make 3 ½ times the ingredients in order to have the perfect number of servings for their family party. Students will need to make ½ the ingredients in order to make the dish for their friends.  This project is set up to where students can be working in small groups of 2 or 3 students. |
|  | **Instruction:** | Students will begin by getting with their assigned group members. The first step of this project is for the students to research a recipe that fits into the given parameters. Students must find a recipe that meets the following requirements:   * Recipe must include at least 4 different fractions. * At least 2 of the fractions must be a mixed number.   Once students have chosen the perfect recipe, students can begin working on their conversions. Students will make a list of the original ingredients as well at two lists for the modified recipes for their dinner parties. Students will be required to show all their calculations on a separate sheet of paper to turn in with their project. Each student must do the calculations.  If at any point a student is struggling with the calculations, not only will I be available for assistance, but students will have access to a video posted on our Google Classroom that contains step – by – step assistance on how to solve multiplication and division problems containing fractions.  Once students have completed their calculations and created their new ingredient lists, students will work to create a display for their recipes. Students displays can be as creative as they wish if it contains the following:   * The title of the recipe * The original recipe ingredient list * The original recipe cooking instructions * The new recipes for their family and friend dinner parties (clearly labeled) * Their new fractions (converted into the simplest form, and all improper fractions are written as mixed numbers)   Once students have finished with their projects, students will be expected to record themselves presenting their project to the class. Students will be using an iPad app title Clips for this portion of the assignment. Students will then save their videos to their Google Drive and share them with me. Once I have received everyone’s submission, I will post their videos in a folder for everyone to view.  As a homework assignment, I will ask students to view their classmates’ videos. (Students will have time in class to begin this assignment) I want students on a separate word document provide feedback to the other groups on their projects. Students will submit the feedback on Google Classroom.  Once I receive everyone’s feedback, I will sort through the feedback and provide each group with anonymous feedback on their project to help them with future presentations. |
|  | **Closure:** | At the end of the lesson, students will be asked to reflect on their project. I will ask students to write a short 2-3 sentence response that explains what they learned about using fractions in the real world. |

**Technology Integration**

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| Provide your **rationale** for your technology choices that accurately reflects those choices within your teaching context. **Identify** what technology(s) you are using as part of your lesson plan. **Describe** how the use of technology aligns to your learning objectives, content standards, and central focus. **Explain** how technology-based instructional strategies are essential to students accomplishing the learning objectives (beyond what could be accomplished without using the technology). **Specify** how the technology selections meet or exceed the needs/strengths of all students**. Justify the “fit”** of chosen technologies, showing how the content, instructional strategies, and technology “fit” together. | Students will be using Google Classroom for accessing their instructions and uploading the digital parts of their assignments.  Students will be using their iPads to conduct research to find the perfect recipe for their dinner party.  Students will be using their iPads and the iPad app, Clips, for their project. Students will practice using video software by recording their presentation for others to view. Clips is a very user-friendly application for students to practice with. |

**Accommodations/Modifications**

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| How might I **modify** instruction for:  *Remediation?*  *Intervention?*  *IEP/504?*  *LEP/ESL?*  (All students who have plans mandated by federal and state law.) | . I will provide ESL students with instructions in Spanish where applicable.  One the word wall, I will post a picture of each vocabulary word.  I will list each word in both English and Spanish.  I will have students working in groups.  I will have the groups paired up to offer students the best learning opportunity. |

**Differentiation**

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| How might you provide a variety of techniques (enhanced scaffolding, explicit instruction, contextualized materials, highlighters/color coding, etc.) **to ensure all student needs are met?**  (All students who are not on specific plans mandated by federal and state law.) |  |

**Assessments: Formative and/or Summative**

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| Describe the **tools/procedures** that will be used in this lesson to monitor students’ learning of the lesson objective(s) (include type of assessment & what is assessed). | X Formative /☐ Summative | Fraction Calculations |
| X Formative /☐ Summative | Project Submission |
| X Formative /☐ Summative | Short Reflection Response |

**Research/Theory**

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| Explain **connections to theories and/or researc**h (as well as experts in the field or national organization positions) that support the approach you chose and justify your choices using **principles of the connected theories and/or research.** |  |

**Lesson Reflection/Evaluation**

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| What went **well**?  What **changes** should be made?  How will I **use assessment data** for next steps? | *TO BE FILLED IN AFTER TEACHING* |

Include supporting material such as slides, pictures, copy of textbook, and handouts for any activities students will be using as part of your lesson.

\*adapted from: <http://webcache.googleusercontent.com/search?q=cache:EsQcNWuG1ZoJ:web.mnstate.edu/harms/StudentTeachers/edTPA-LessonPlan.doc+&cd=2&hl=en&ct=clnk&gl=us>; <http://www.moreheadstate.edu/getmedia/cd3fd026-939f-4a47-a938-29c06d74ca01/Lesson-Plan-and-Reflections.aspx>; <http://www.mcneese.edu/f/c/9cb690d2/Lesson%20Plan%20Rubric%20Aligned%20with%20InTASC.docx>;<https://www.uwsp.edu/education/Documents/edTPA/Resource12.pdf>; <https://www.uwsp.edu/education/Documents/edTPA/Resource11.pdf>; <https://www.uwsp.edu/education/Documents/edTPA/Resource11a.pdf>; <https://www.uwsp.edu/education/Documents/edTPA/LessonPlanTemplateSOE.docx>; <https://www.uwsp.edu/education/Documents/edTPA/SpecEdLessonPlanGuide.docx>; <https://www.uwsp.edu/education/Documents/edTPA/SpecEdLessonPlanTemplate.docx>