**Name\_Emilee Hammett\_\_**

**Lesson Plan**

**Learning Segment Focus\_\_\_\_\_Changing Improper Fractions to Mixed Numbers\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Lesson \_\_1\_\_of\_\_1\_\_ Topic \_\_\_\_Fractions\_\_\_\_\_\_\_Date\_\_\_4-26-21\_\_\_\_ Grade\_\_\_\_4\_\_\_\_**

**Student Outcomes**

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| Specific learning **objectives** for this lesson. | Students will understand that improper fractions can be rewritten as mixed numbers.  Students will understand that mixed numbers are made up of whole numbers and fractions. |
| Justify how learning tasks are appropriate using examples of **students’ prior academic learning**. | Students have learned prior about regular fractions. They have also seen examples of improper fractions.  Students have also learned prior about long division with remainders, which is a whole number with a fraction left over. |
| Justify how learning tasks are appropriate using examples of **students’ personal, cultural, linguistic, or community assets**. | At this point, students have dealt with many fractions of a whole, usually in the form of prices. Not everything that they buy is exactly $1 or $10. There are fractions of dollars (coins). |

**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.4.NF.B.3  Understand a fraction a/b with a > 1 as a sum of fractions 1/b (e.g., 3/8=1/8+1/8+1/8):  • Understand addition and subtraction of fractions as joining and separating parts referring to the same whole  • Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation and justify decompositions (e.g., by using a visual fraction model) (e.g., 3/8 = 1/8 + 1/8 + 1/8 ; 3/8 = 1/8 + 2/8 ; 2 1/8 = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8)  • Add and subtract mixed numbers with like denominators (e.g., by using properties of operations and the relationship between addition and subtraction and by replacing each number with an equivalent fraction)  • Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators (e.g., by using visual fraction models and equations to represent the problem) Note: Converting a mixed number to an improper fraction should not be viewed as a separate technique to be learned by rote memorization, but simply a case of fraction addition (e.g., 7 1/5 =7 + 1/5 = 35/5 + 1/5 = 36/5). |

**Key Vocabulary**

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

**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)?** | Students have had previous instruction that include discussing all of the key vocabulary. The terms will be defined within the lesson. Students will demonstrate their understanding of the content through their video project. |

**Materials**

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| Materials needed by the teacher for this lesson. (such as books, writing materials, computers, models, colored paper, etc.) | Computer, promethean board, powerpoint presentation, 2 dice |
| Materials needed by **students** for this lesson. (computers, journals, textbook, etc.) | Computer/ipad, a video app or program, access to various materials they could use in their video (coins, cookies, marbles, etc.) paper, pencil, worksheet, promethean |

**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)** |
| Day 1 - 10 minutes | **Introduction**:   * **Bellringer** * **Class discussion** | As the students come in, there will be a long divison problem on the board for them to complete. There will be a remainder with this long division problem.  After students have been given time to complete the problem, the teacher will ask them what they came up with. They will give an answer with a remainder. Teacher will ask them what is the remainder? What does it mean? Several students will be given the opportunity to answer. (They will probably not know the answer until after the day’s lesson). |
| Day 1 – 40 minutes  Day 2 – 45 minutes  Day 3 – 1 hr  Day 4 – 30 minutes  Day 4 – 30 minutes | **Instruction:**   * **Explicit instruction** * **Worksheet** * **Project Introduction** * **Group work** * Group Work. * Editing/finishing up * Students will play a game * This is a bit of a break/extra practice | The teacher will present the powerpoint presentation and use the promethean to show the students how to deal with improper fractions by rewriting them as mixed numbers.  After the lesson, students will be given a worksheet with 5 problems. The teacher will walk around and assist and answer questions where needed.  Students will turn in their worksheets at the end of the math portion of the day.  The class will be split up into groups of 3-4.  Students will be instructed to create a video that shows how they can use what they have learned about improper fractions and mixed numbers in the real world. Students will begin to write their script in a notebook. They will plan out what they are going to say and who will be filming.  Students will break back into their groups and begin filming. They can use materials in the classroom for their video. They will be given the whole time to work. Teacher will supervise.  Students will be given time to edit their video together, add music, etc.  Teacher will roll the 2 dice. The first die will represent the numerator and the second will represent the denominator. Students, separated into 3 groups, will rewrite the fraction as a mixed number. The first team to get the answer gets 3 points, the second team gets 2 points and the last team gets 1 point. The first team to reach 20 points wins. |
| Day 5 | **Closure:**     * presentation | The class will sit down together and watch all of the videos. |

**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. | **The videos will allow the students to be creative in bridging the gap between abstract math concepts and their own life. The promethean will make instruction easier because the teacher can model the problems right there in front of the class. Students can use the promethean to do their problems during the game.** |

**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.) | .The students are working in groups, so peers can encourage and assist students who may need it. Extra instruction can be given to those who may need it during the group time. |

**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.) | The powerpoint represents audio and visual explicit instruction. The video projects are hands-on and a creative approach. The game is a kinesthetic reinforcer of the lesson after a few days to refresh memories. |

**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). | ☐ Formative /☐ Summative | The bellringer and discussion will act as a formative assessment. |
| ☐ Formative /☐ Summative | The worksheets will be a formative assessment. Since the material is new, and there is only one day to work on the worksheets, they will be used as a means to check understanding and they will be graded based on effort and completion. |
| ☐ Formative /☐ Summative | The video project will be graded according to a rubric and the problems featured will be on an upcoming quiz. |

**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.** | A meta-analysis of 15 years of **research** on the advantages of **hands-on learning**, including 57 **studies** of 13,000 students in 1,000 classrooms, demonstrated that students in activity-based programs performed up to 20% higher than groups using traditional or textbook approaches.  <https://educationassociates.com/case-for-hands-on-learning/#:~:text=A%20meta%2Danalysis%20of%2015,using%20traditional%20or%20textbook%20approaches>. |

**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>