**Name: Allyx Pfeifer\_\_\_\_\_\_\_**

**Lesson Plan Template**

**Learning Segment Focus\_\_\_\_\_\_ Unit Conversions\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Lesson \_\_\_1\_\_of\_\_\_3\_\_ Topic: Measurement and Data \_\_\_Date:\_\_\_April 5\_\_\_\_\_ Grade\_\_\_\_\_5th\_\_\_\_\_\_\_\_**

**Student Outcomes**

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| Specific learning **objectives** for this lesson. | The students will be able to convert using basic systems of measurement. Students will also be able to use conversions in multi-step real world problems. |
| Justify how learning tasks are appropriate using examples of **students’ prior academic learning**. | In previous lessons, the students will have been using the skills needed in conversions such as using fractions and decimals to solve real life problems as well as mathematic concepts. |
| Justify how learning tasks are appropriate using examples of **students’ personal, cultural, linguistic, or community assets**. | Students have background knowledge of conversion vocabulary, mainly for the customary system through real life experiences, such as height, weight, and shoe size. |

**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.5.MD.A.1 • Convert among different-sized standard measurement units within the metric system for example: Convert 5 cm to 0.05 m. • Convert among different-sized standard measurement units within the customary system for example: Convert 1 ½ ft to 18 in. • Use these conversions in solving multi-step, real world problems |

**Key Vocabulary**

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| What **vocabulary terms/content specific terminology** must be addressed for students to master the content? | **Metric, Customary, conversion, length, width, height, mile, gallon, pint, cup, ounce, quart, liter, decimeter, millimeter, kilometer, centimeter, convert** |

**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 will have access to graphics on the word wall for key terms.  Students will have a printed-out conversion chart on their desks showing how much each unit is. Ex: kilo=1000  Students will have their table partner as peer academic language support  Visuals will be provided for each unit as well as size comparison graphics.  The vocabulary will be posted on the wall with cognates. |

**Materials**

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| Materials needed by the teacher for this lesson. (such as books, writing materials, computers, models, colored paper, etc.) | Conversion charts, texts on unit conversion, projector/smart board, computer, vocabulary lists, graphics, visuals, white boards, dry erase markers, math journals |
| Materials needed by **students** for this lesson. (computers, journals, textbook, etc.) | Paper, pencils, math textbooks, laptops, math journals |

**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)** |
| 15 minutes | **Introduction**:  Stating objectives of the lesson and reflection of video/ Challenge questions | Teacher will ask the students to reflect on their memory of conversions that were familiar to them. Teacher will also ask the students to write down one or two units that they were unfamiliar with.  Teacher will also ask the students a challenge question and ask them to discuss this with their partner. For example: How can we become more familiar with these measurements? Can we use everyday objects? Ex: can you use your hand?    Teacher will explain to the students what they will be learning today which is how to adequately convert unit measurements in both the metric system and the customary system. |
|  | **Instruction:**  \*\*Metric system conversion unit introduction video         \*\*Providing background knowledge        \*\*Presenting content                    \*\*Introducing the customary system                              \*\*Check for understanding/ Guided practice 1                      \*\*Guided Practice 2            \*\*Independent practice/ Assessment | \*\*Teacher will instruct students to watch the video playing on the smart board/ board.  Students will watch this video and begin to see what the lesson will be about.     \*\*The teacher will explain that while this is new, the students have the necessary skills to accomplish unit conversions by using fractions, decimals, and whole numbers. Teacher will ask questions that reflect on memories of conversions    \*\*Teacher will provide the students with a visual regarding King Henry. This is a mnemonic device to be used when learning metric conversions. The teacher will go through, explain, and elaborate on each measurement. While the teacher is lecturing, the students will be taking notes in their math journals provided by teacher. The teacher will use a variety of examples of conversion problems such as 1.75 kg to \_\_\_\_ g. The teacher will also explain how metric compares the customary system as the teacher begins to transition to the customary system    \*\*The teacher will offer the students a little reassurance that the customary system should look familiar as they deal with these units every day. This is discussed some in background knowledge, but this will help relieve stress for students if this information is discussed more than once. Teacher will instruct the students to discuss with their table partner conversion units they already know with in the customary system. Teacher will also instruct the students to name a few they feel they may struggle with. Once the partners are finished, as a class, the teacher will encourage discussion about the challenges they feel they will face when converging with this system. Students will also have the opportunity to discuss how they feel customary conversions will be easier than metric.    \*\*Teacher will hand out digital I pads and students will use the paint app to draw their answers.. Teacher will write various conversion problems one at a time on the board, randomly choosing between metric and customary systems. Some of these questions will be word problems involving real life problems. For example, a word problem that asks students to convert from cups to pts in a cooking problem. Students will write the conversion answer on their individual Ipad and when time is up, will flash the teacher their Ipads. Teacher will examine the boards and tell the correct answer. Teacher will pay attention to students struggling.      \*\*Students will play Kahoot game on the board with teacher. We will be doing unit conversions and students will compete for first place converting various unit conversions.      \*\*The teacher will give the student an informal quiz/ exit ticket consisting of 3 conversion problems varying between metric and customary. This will be handed in at the end of class. |
|  | **Closure:** | The teacher will show a short, fun music video about conversions to reinforce the information. |

**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. | **In this lesson, I chose to have various videos played on the smart board as well as iPads. I want my students to use the iPads to write their answers down in our activity. This is a great way to integrate technology into a math classroom. This allows for students to be able to convert using basic systems of measurement and for students will also be able to use conversions in multi-step real world problems.** |

**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.) | Students will be able to use peers as academic language support.  Students will have access to their vocabulary and cognates.  Independent practice can be reduced to meet the needs of the individual students.  Students will have model charts, as well as conversion charts on hand to use throughout lesson. |

**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.) | Teacher will provide contextualized material to all students to need it, or appear to be struggling throughout the lesson. These materials will be real life objects the size of their conversions for students to be able to picture each size. Teacher will also highlight/ color-code various charts and graphics to separate each system as well as each unit. |

**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 | Teacher taking note of students' progress as they work |
| ☐ Formative /☐ Summative | Exit ticket |
| ☐ Formative /☐ Summative | iPad check |

**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.** | Behaviorist learning and information processing  For this lesson, direct instruction was chosen because the teacher planned for the students to gain knowledge of the conversions and units and to be able to apply this skill in real work situations. These real-life situations are word problems, for example, cooking problems. |

**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>