**Name__Jennifer Webb____**

# Lesson Plan

**Learning Segment Focus_____Graphing Data____Lesson ___3___of___4___**

**Course & topic addressed ___Science-Space Systems_____Date__03/28/20__ Grade_5__**

## Student Outcomes

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| Specific learning **objectives** for this lesson. | Students will take their collected data and analyze the results.<br>Students will demonstrate their analyzation by synthesizing graphs. |
| Justify how learning tasks are appropriate using examples of **students' prior academic learning**. | Students have taken recorded data and turned it into graphs.<br>Students have learned how to properly collect data. |
| Justify how learning tasks are appropriate using examples of **students' personal, cultural, linguistic, or community assets**. | Math is universal. My Ell students are allowed to use either the Metric system or the American system to display their data. |

## 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). | 5-ESS1-2 Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky. [Clarification Statement: Examples of patterns could include the position and motion of Earth with respect to the sun and select stars that are visible only in particular months.] [Assessment Boundary: Assessment does not include causes of seasons.]<br><br>SL.5.5 Include multimedia components and visual displays in presentations when appropriate to enhance the development of main ideas or themes. (5-ESS1-2)<br><br>MP.4 Model with mathematics. (5-ESS1-1, 5-ESS1-2) |

## Key Vocabulary

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| What **vocabulary terms/content specific terminology** must be addressed for students to master the content? | **Shadow**<br>**Measurement**<br>**Bar Graph** |

## 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?<br>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 | |

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| address all three **Academic Language Demands (vocabulary, syntax, and discourse)?** | |

## Materials

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| Materials needed by **teacher** for this lesson. (such as books, writing materials, computers, models, colored paper, etc.) | Computer<br>Excel<br>Smart board/projector with airplay capabilities |
| Materials needed by **students** for this lesson. (computers, journals, textbook, etc.) | Computer<br>Data that has been recorded as homework<br>Excel |

## Lesson Timeline with Instructional Strategies & Learning Tasks

| **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)** |
|---|---|---|
| 2 minutes | **Introduction**:<br>**Reminder about their collected data** | Remember how we collected our data about the length of shadows depending on the day. Grab that homework and your computer. We are going to turn that data into graphs in today's lesson. |
| | **Instruction:** | |
| 2 minutes | Instructions/Questions | Instructions on putting the data into the excel file and turning the data into a graph. Answer any student questions. |
| 3 minutes | Independent work | Students will fill out their excel files from the data and turn that data into a graph. |
| 15 minutes | Small group comparison of data | Students will get in groups of 4. These are already determined by the teacher and the groups are listed on the smart board for students to see. Students will let the others copy their data into personal excel files so that every student has 4 different sets of data. Students will create a graph comparing the different data sets. |
| 15 minutes | Whole group discussion | Whole group discussion/presentation of data. One member of each group will airplay their computer to display their comparison graph. After all the groups have shown we will have a discussion comparing the data sets and exploring what students have learned. |
| 1 minute | **Closure:**<br>Students submit work. | Students will submit their excel files on google classroom. |

## Accommodations/Modifications

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| How might I **modify** instruction for: *Remediation?* | .Students with learning disabilities will have a template that includes a premade graph. |

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| *Intervention?*<br>*IEP/504?*<br>*LEP/ESL?*<br>(All students who have plans mandated by federal and state law.) | Ell students are allowed to use metric system when recording data. |

## 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?**<br>(All students who are not on specific plans mandated by federal and state law.) | **Students who struggle to focus will be given a color coded template or an interactive template.** |

## 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 will observe small group discussion and ask probing questions. |
| | ■ Formative /☐ Summative | Presentation of graphs with the class discussion. Students are able to edit the graph while we display it and discuss it. |
| | ☐ Formative /■ Summative | Students will turn in their completed graphs. |

## 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.** | Group investigation theory states that students learn by exploring and discovering the answers for themselves.<br>Scaffolding will allow the students to continue in their discovery learning. |

## Lesson Reflection/Evaluation

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| What went **well**?<br>What **changes** should be made?<br>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