Name **Emery Steele**_____

Lesson Plan Template

Learning Segment Focus <u>Interpreting Data and Creating Line Graphs_____</u>

Lesson _____**of**_____ **Topic** <u>Analyzing data from the cost of living in different cities and creating a spreadsheet_____</u>**Date__3-29-21_____ Grade__5_____**

Student Outcomes

Specific learning **objectives** for this lesson.	Students will interpret data they are provided and submit into a spreadsheet. Students will analyze the data to draw conclusions about which cities have the highest cost of living.
Justify how learning tasks are appropriate using examples of **students' prior academic learning**.	Students will already know how to interpret graphs. They will also have an understanding of money and how to add and subtract various costs. They should also have experience using Microsoft Excel.
Justify how learning tasks are appropriate using examples of **students' personal, cultural, linguistic, or community assets**.	This lesson is in a small group setting which helps ESL and introverted students feel comfortable engaging in the lesson. This lesson is also easily adjustable to fit each student's needs based on their abilities and background knowledge.

State Academic Content Standards

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.B.2: Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8) ○ Use operations on fractions for this grade to solve problems involving information presented in line plots ○ For example: Given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally. Given different measurements of length between the longest and shortest pieces of rope in a collection, find the length each piece of rope would measure if each rope's length were redistributed equally or other examples that demonstrate measures of center (mean, median, mode).

Key Vocabulary

What **vocabulary terms/content specific terminology** must be addressed for students to master the content?	• **Line plot** • **Data** • **Graph** • **Cost of Living** • **Median**

Academic Language Support

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)?**	Student must interpret and analyze in order to complete the lesson. I will create a word wall for students that includes visuals and cognates (or the Spanish equivalent of the word) along with the definitions for the vocabulary and discourse demands of academic language. Each word will be used in a sentence on the word wall for the syntax demand of academic language.

Materials

Materials needed by the teacher for this lesson. (such as books, writing materials, computers, models, colored paper, etc.)	• Writing materials • Computer with Excel • Data of the costs of living of various cities (New York, Seattle, San Diego, Miami)
Materials needed by **students** for this lesson. (computers, journals, textbook, etc.)	• Writing materials • Spreadsheet created by the teacher using Excel • Data provided by the teacher • Computer

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)
10 minutes	**Introduction**: • I will explain the activity. • I will model how to complete the assignments • I will split students into groups and providing them with the materials they need.	• I will first explain to the students we will be learning how to compare the costs of living from various cities using Excel spreadsheets. • I will then model how to create a line graph using the data from a spreadsheet about Jonesboro's cost of living. • Next, I will split the students into groups and provide them with the spreadsheets and the data they need to complete the assignment.
35 minutes	**Instruction:** • The students will complete a data chart in groups • The students will evaluate the charts and answer questions about it • The students will share their findings with the class	• Once the students are in the groups, they will create a line graph of the data within their spreadsheet. • After the graph is completed, the students will answer questions on a handout that will ask them to be able to interpret the data. • Students will return to their seats and share the data with the class. • As a class, we will create an overall comparison chart that we compile from the data they found.

5 minutes	**Closure:** • The students will complete an exit ticket and turn it in for formative assessment.	• The students will complete an exit ticket asking about which city they would prefer to live in and why. • The students will write down any questions they have about the lesson.

Technology Integration

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.	**I am having the students use a computer during the lesson. On the computer they will be using Excel to better understand how to analyze and interpret data. This will also help students understand how charts of data correlate with graphs, such as line graphs and bar graphs. This allows students to have a hands-on interaction with data and how it might be used in daily life. The kinesthetic nature of the technology will help greatly with retention of the material.**

Accommodations/Modifications

How might I **modify** instruction for: *Remediation?* *Intervention?* *IEP/504?* *LEP/ESL?* (All students who have plans mandated by federal and state law.)	.I am providing students the cognates or Spanish equivalents of all the words to help ESL students. I can provide students with already filled out charts and graphs should their IEP or 504 require it. I also included small group work that I will chose for a low-anxiety environment and enhanced scaffolding based on student need and ability.

Differentiation

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.)	This activity requires students to be paired into groups which I will select for enhanced scaffolding. It will use color coding within the spreadsheets. It also uses a lot of visuals, such as charts and graphs to help student comprehension.

Assessments: Formative and/or Summative

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	Students will complete a line graph and turn it in.
	X Formative /☐ Summative	I will be walking around the room asking questions and keeping a record of students' strengths and weaknesses.
	X Formative /☐ Summative	Students will complete an exit ticket.

Research/Theory

Explain **connections to theories and/or research** (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.**	This lesson is an example of cooperative learning, which is a student-centered model of teaching. This is based on the ideas of theorists Piaget and Vygotsky who developed the concepts of scaffolding and the zone of proximal development. It encourages student problem-solving and develops communication and social skills. It also helps students be motivated to learn, since it is an engaging teaching strategy. It provides teachers the opportunity for a great amount of differentiation.

Lesson Reflection/Evaluation

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