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Lesson Plan Template

Learning Segment Focus - Mathematics: Solving one-step word problems using measurements while reading and interpreting a bar graph.

Lesson 2 of 2 - Topic – Bar Graphs and Measurements Date - 4/6/2021 Grade - 3

Student Outcomes

Specific learning **objectives** for this lesson.	- Students will learn how to take measurements of different items within the same units. - Students will learn how to read bar graphs and compare two or more graphs. - Students will learn how to make a bar graph from given information. - Students will learn how to solve one-step word problems by using graphs and measurements.
Justify how learning tasks are appropriate using examples of **students' prior academic learning**.	Students have already learned how to take measurements; they just need to know how to sort them in a graph and be able to read the graphs that are given to them. They also already know how to solve word problems with the given information as well, so they can put their new knowledge of reading graphs to the test.
Justify how learning tasks are appropriate using examples of **students' personal, cultural, linguistic, or community assets**.	These are animals that students are most likely educated about and have seen before. They will understand the comparisons of size of the animals and be more involved with the charts because of the interesting animals.

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.3.MD.A.2**: Measure and estimate liquid volumes and masses of objects using standard units such as: grams (g), kilograms (kg), liters (l), gallons (gal), quarts (qt), pints (pt), and cups (c) Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units (e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem) Note: Conversions can be introduced but not assessed. Excludes compound units such as cubic centimeters and finding the geometric volume of a container. Excludes multiplicative comparison problems (problems involving notions of "times as much").

Key Vocabulary

What **vocabulary terms/content specific terminology** must be addressed for students to master the content?	Addition Subtraction Multiplication Division Graph Bar Graph X-Axis Y-Axis Unit

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)?**	The functions are to help the students understand the math terms that others might use to ask these questions or mention these concepts. They are also included in important parts of a graph.

Materials

Materials needed by the teacher for this lesson. (such as books, writing materials, computers, models, colored paper, etc.)	Computer Word Problems examples Access to Microsoft Microsoft Excel Copy of worksheet
Materials needed by **students** for this lesson. (computers, journals, textbook, etc.)	Computer Knowledge of measurements, animals, and graphs Microsoft Excel Data Word problem Notebook (Paper) Pencil

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**: Review how to take measurements with the same units of food.	I will review with my students how to take measurements of the same units and give examples for my students to work to make sure they know what to do.
20 minutes	**Instruction:** Actual lesson and explanation	I will then take an example that they understood and question them on how they would set up a graph. I will explain what they would need (ex. Title, x-axis, y-axis, labels, etc.) After they say their thoughts, I will show them how the correct way is to set it up. Then they will repeat with the data and where it makes sense to put it. I will then introduce example one-word problems like comparison or “how many

		more/less" problems they can solve using the example graph.
10 minutes	**Closure:** Assignment Instruction	After the students grasp this concept and learn these examples, I will give them their assignment of a work sheet with given data and problems to solve. They will then turn this in.

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.	For this lesson, I will be using Microsoft Excel for technology integration. My students will read and develop excel sheets with Excel.

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 could use pictures and graphics that don't use spoken words, an ESL teacher, a math specialist, and a Special Education teacher within the classroom during this lesson to keep everyone learning and engaged with the lesson. I could also give the details of the lesson to other teachers to work individually with my students outside of this specific lesson.

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.)	Ask questions on what they don't understand, and ask how they would do it and make sure I accommodate what they think and relate it to what is the correct way to imply this concept.

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	☐ Formative /☐ Summative	Math Test
	☐ Formative /☐ Summative	Worksheet after lesson that is turned in
	☐ Formative /☐ Summative	

& what is assessed).		

Research/Theory

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

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;
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