

Lesson Plan

Learning Segment Focus: Data and Graphing- Candy Crazy: Skittle Project Lesson 2 of 3
Course & topic addressed Math- Data and Graphing/ Less than or More than Date 04/01/2020
Grade 3rd

Student Outcomes

Specific learning objectives for this lesson.	Students will be able to collect data and represent it on a picture graph and a scaled bar graph by 95 %. Students will be able to look at the graph and tell which “how many more and how many less.”
Justify how learning tasks are appropriate using examples of students’ prior academic learning.	Students will use their prior knowledge to collect data on a chart. They will use knowledge on comparing and contrasting data collected to find a result. They will use their knowledge on less than and greater than to help them interpret data on the table and graph.
Justify how learning tasks are appropriate using examples of students’ personal, cultural, linguistic, or community assets.	My classroom consists of 8 white, 10 African American, 1 Asian and 5 Hispanic. I have 4 who have been identified as are English Language Learners and 2 who have been identified as SPED. My 4 ELL students are part of a pull- out program twice a week for 30 minutes each. My 2 SPED students are part of a resource class they have every day for an hour. I have 3 ACE students who are pulled for higher learning 2 days a week in the afternoon. With a great diversity in my classroom, my class is able to learn amongst their peers through cultural differences.

State Academic Content Standards

List the state academic content standards with which this lesson is aligned. Include abbreviation, number & text of the standard(s).	3.MD.B.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one and two step “how many more” and “how many less” problems using information presented in scaled picture graphs and scaled bar graphs.
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Key Vocabulary

What vocabulary terms/content specific terminology must be addressed for students to master the content?	x- axis Bar graph Data y-axis Table Chart
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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)?	Students will learn about collecting data, graphing their data and interpreting data to find an end result. They will also use this information to compare and contrast. Students will be taught key vocabulary. There will be an anchor chart over collecting data and graphing focusing on key vocabulary. They will do the candy crazy project to help them grasp this math concept. I will provide an example of what is expected.
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Materials

Materials needed by teacher for this lesson. (such as books, writing materials, computers, models, colored paper, etc.)	<ul style="list-style-type: none"> ● 24 Macbooks ● Math journals ● Google Spreadsheet Example ● SMART Board ● 3 packages of Skittles per student
Materials needed by students for this lesson. (computers, journals, textbook, etc.)	<ul style="list-style-type: none"> ● Macbook ● Math journal ● Pencil ● 3 Packages of Skittles

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)
5 minutes	<u>Introduction:</u>	<p>“Boys and girls, let’s get up and stretch a little before moving on to Math. Alright if we are good let’s get ready for math by getting a pencil, math journal and your Macbook, please.”</p> <p>“Today we are going to learn to collect data and graphs. Do we know why people collect data? Or maybe what people collect data and graphs? Think about it.”</p>
30 minutes	<u>Instruction:</u>	<p>“Did any of you think of people who use data everyday? How many of you like sports?”</p> <p>*Students raise hand* “Did you know they collect data and use graphs to help them? For example, in soccer they keep data of how many passes and goals a soccer player makes in a game or in their soccer career and sometimes even compares them to other players. Maybe you like going to the movies. People who make movies use data and graphs to tell them how many people saw or bought their movie compared to other movies that may have come out at the same time. In school we use data to help us determine what you are strong and where we can help you or others.</p> <p>Today, we are going to collect data and make a bar graph. A bar graph is a graph like this one. I will point to the anchor chart. This graph uses different bars of different lengths to represent the data collected and compare it to other data collected. The numbers on tells us how much each</p>

		<p>bar represents. For example, I asked people how many liked Chick Fil A, McDonalds, or Taco Bell. I asked 25 people so my numbers will reach a maximum 25. Here the Chick Fil A bar tells us 12 people like this restaurant. This bar tells us 10 like McDonalds and the last bar tells us only 3 like Taco Bell. This bar tells us a popular place people love to eat and probably makes the most money. From my graph which restaurant won?" *Student successfully answers*</p> <p>"Yes, Chick Fil A won. Now if I was going to have a class party and this represented our class, I would bring Chick Fil A because the majority of the people like it. Do you see how collecting data and graphs can help me?"</p> <p>I will continue to explain how to collect data and how to graph data collected. After students will have the opportunity to practice collecting their data, putting the data in a chart on Google Spreadsheets and creating graphs.</p> <p>"Alright, Susy is passing out everyone 3 packages of Skittles. You are going to open a package and count how many Skittles you have total. Then you will separate each one by color and count how many of each color you have in your 1 package. Remember to write down the data in your notebook. You will then plug how many red you go in package 1? How many yellow? and so on. You will do that with all three packages. You will then plugin the numbers on the Google Spreadsheet table and create a chart.</p> <p>Based on your data, answer these questions. Which is the most popular color and why? Do you think people like that color the most? Which is the least popular color and why? According to your data, Which were you 2 most popular colors and what is the total number for those two colors combined? Answer these questions in your notebook when you look at your data and graphs. You have a few minutes before P.E."</p>
<p>10 minutes</p>	<p><u>Closure:</u></p>	<p>"When you are finished please let me help you print the document with me with your table and graphs to glue in your Math journal with your questions and answers. Then turn in the journal in our Math basket. After, get ready for P.E. During P.E. they will ask you what sports you would like to play the most. That is a way to collect data Let's go!"</p>

Accommodations/Modifications

<p>How might I modify instruction for: <i>Remediation?</i> <i>Intervention?</i> <i>IEP/504?</i> <i>LEP/ESL?</i> (All students who have plans mandated by federal and state law.)</p>	<p>ELL and SPED students will be provided with their own personal anchor chart to help them visualize the key vocabulary and math concept. There will be a word wall provided for students with math definitions and pictures if needed. Sentence frames will be posted around the room to help them with conversation. They will have preferential seating to get the help needed.</p>
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Differentiation

<p>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.)</p>	<p>My higher learning students will not only compare colors of skittles, but will get Skittles and M&Ms to compare two different types of candy. They will be expected to build their own chart and graph. They will act as a peer tutor to struggling students.</p>
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Assessments: Formative and/or Summative

<p>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).</p>	<p><input type="checkbox"/> Formative / <input type="checkbox"/> Summative</p>	<p>Data collected on chart in math journal</p>
	<p><input type="checkbox"/> Formative / <input type="checkbox"/> Summative</p>	<p>Transferring data to Google Spreadsheets table successfully</p>
	<p><input type="checkbox"/> Formative / <input type="checkbox"/> Summative</p>	<p>Interpreting data and graphs to know how many more and how many less.</p>

Research/Theory

<p>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.</p>	<p>Constructivism: Students will have to use prior knowledge to help them record data, interpret data and create bar graphs.</p>
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Lesson Reflection/Evaluation

<p>What went well? What changes should be made? How will I use assessment data for next steps?</p>	<p><i>TO BE FILLED IN AFTER TEACHING</i></p>
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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>;
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