

Lesson Plan Template

Learning Segment Focus Science & Math: Data Analysis

Lesson 4 of 5 Topic Data Analysis Date 03/24/2021 Grade 3rd

Student Outcomes

Specific learning objectives for this lesson.	By the end of this lesson, TSW be able to collect data and input the information into a Google Sheet as well as observe a line graph and bar graph composed from the collected data. TSW also be able to draw corresponding tally charts, pictographs, line graphs and bar graphs on paper using the data collected from this lab.
Justify how learning tasks are appropriate using examples of students' prior academic learning .	Previous lessons in this unit have included descriptions, examples and modeling of tally charts, pictographs, line graphs and bar graphs. Students have seen the teacher use Google Sheets within previous lessons but have never input information on their own. Students will be walked through each step and will complete the Sheet collaboratively.
Justify how learning tasks are appropriate using examples of students' personal, cultural, linguistic, or community assets .	This assignment is an all-inclusive and well-rounded assignment that takes students outside of the classroom for the data collection, allows for technological contributions and involves basic pencil/paper aspects. This assignment aligns with most of the student's senses and interests.

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.B.3 - Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories (e.g., Draw a bar graph in which each square in the bar graph might represent 5 pets)
---	---

Key Vocabulary

What vocabulary terms/content specific terminology must be addressed for students to master the content?	Tally chart, Pictograph, Line graph, bar graph
---	--

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 have been completing minor tasks surrounding these activities throughout the week (3 days previous). Students have been shown videos, had discussions, provided examples, seen modeling and completed small, individual pieces of this assignment on previous days. Students will be walked through each piece of this assignment, provided clarification and guidance when needed and scaffolding will be available at all times.
---	---

Materials

Materials needed by the teacher for this lesson. (such as books, writing materials, computers, models, colored paper, etc.)	SmartBoard, Chromebook, Google Sheets, Timer
Materials needed by students for this lesson. (computers, journals, textbook, etc.)	Tally Chart, Line Graph & Bar Graph Worksheet, Pencil, Ziploc Bags, Chromebook, Google Sheets

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)
20 min	<u>Introduction:</u>	TTW hand out the Tally Chart, Pictograph, Line Graph & Bar Graph worksheet and a Ziploc bag per student while explaining directions for the assignment. She will let them know that today they will be going outside to collect materials to fill in the information on the provided worksheet. The materials collected are listed on the worksheet and are to be put in the Ziploc bag when collected. The students will line up, go to the field beside the school and be given 5 minutes to collect their materials and return to the line. Once the class returns to the room, further instructions will be provided.
20 min	<u>Instruction:</u>	Once the students return to the room from collecting their materials, TTW pull Google Sheets up on the Smartboard and instruct them to do the same. (The Sheet has already been shared with the students) TSW then be instructed to count their materials and enter tally marks beside each on their worksheet. Once they have tallied their materials, they will enter the numbers in Google Sheets. The Google Sheet will calculate as they enter for them to observe. It will also compose the line graph and bar graph automatically as data is being entered. Once all data has been entered, the students will independently fill in the pictograph, line graph and bar graph sections of their worksheets. They will only fill these in with their own information. TTW walk around the room scaffolding as needed throughout the entire process.
10 min	<u>Closure:</u>	Once all information has been entered and all worksheets have been completed, the students will submit their worksheets to the inbox for grading. TTW explain that fully understanding the ins and outs of graphs and charts is imperative for the upcoming state tests. She will ask if there are any questions and answer as needed.

Technology Integration

<p>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</p>	<p>In this lesson, Google Sheets is being used on the Chromebook and SmartBoard. Google Sheets was chosen as a way to introduce the students to data entry and analysis. When entering the data into the table, a line graph and bar graph automatically form. This coincides with the standard and objective of drawing graphs.</p> <p>We live in a technological world so any lessons that can include technology is beneficial for our students. Technology can be</p>
--	---

<p>(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.</p>	<p>extremely user friendly if taught and understood correctly. By starting with simple aspects, like filling data into a table that is linked to graphs, we are strengthening the students content knowledge as well as expanding their technological knowledge.</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>Extended time to complete, large print materials, small group work, one on one direction and/or assistance (including reading), ability grouping, quiet space to complete work, preferential seating</p>
--	---

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>Extended time to complete, large print materials, small group work, one on one direction and/or assistance (including reading), ability grouping, quiet space to complete work, preferential seating</p>
---	---

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 checked="" type="checkbox"/> Formative / <input type="checkbox"/> Summative</p>	<p>Student’s data input into the Google Sheet as well as completion of the charts & graphs on the worksheet.</p>
	<p><input type="checkbox"/> Formative / <input checked="" type="checkbox"/> Summative</p>	<p>Data analysis and understanding on state testing.</p>
	<p><input type="checkbox"/> Formative / <input type="checkbox"/> Summative</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>The theory of Socially-Shared Cognition is considered as communal participation in the occurrence of learning. This means that the learners are active participants in a shared learning community. Technology relates to this in that it is where the participants are learning and sharing together. This connects to this lesson since it is a collaborative lesson between the class members and each of their contributions to the Google Sheet has an effect on the product of the table and graphs.</p>
--	---

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>
---	--

Include supporting material such as slides, pictures, copy of textbook, and handouts for any activities students will be using as part of your lesson.