

## Lesson Plan Template

Lesson Segment Focus: Plant Growth

Lesson: 1 of 1

Course & topic addressed: Math and Science: Tables and DataDate: October 2018Grade: Second

### Student Outcomes

Specific learning objectives for this lesson.	Students will learn how to record data and use that data to make tables and graphs.
Describe the connection to previous lessons. (Prior knowledge of students this builds upon)	Students can already do basic addition and subtraction. Students know what a table is and can use the given information to fill in a table.
Knowledge of students background (personal, cultural, or community assets)	The students already participate in the school nursery/flower bed and know the basics of plant life and nutrients.

### State Academic Content Standards

List the state academic content standards with which this lesson is aligned. Include state abbreviation and number & text of the standard.	<p><b>AR. Math.Content.2.OA.A.1</b> Use addition and subtraction within 100 to solve one – and two-step problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions.</p> <p><b>AR.Math.Content.2.MD.D.10</b> Draw a picture graph and a bar graph, with single-unit scale, to represent a data set with up to four categories.</p> <p><b>2PS1-2</b> Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.</p>
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### Academic Language Support

<p>What planned instructional supports might you use to assist students to understand key academic language to express and develop their content learning?</p> <p>What will you do to provide varying supports for students at different levels of academic language development?</p>	I will give them a list of vocabulary words that we will use prior to starting the activity and assessment. These words will be used throughout the course of the activity and assessment. They will also be quizzed on these words later.
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### Key Vocabulary

What vocabulary terms/content specific terminology must be addressed for students to master the lesson?	<b>Some vocabulary words that we will address are: table, data, analyze, photosynthesis, oxygen, life cycle, stem, roots, leaves, seeds, graph, and legend (key).</b>
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## Materials

Materials needed by teacher for this lesson.	The materials needed by the teacher are Plant pots, seeds, soil, water, sunlight, UV lamp, Excel software, paper, crayons and markers.
Materials needed by students for this lesson.	The materials needed by the students (provided by the teacher) are paper, pencils, crayons and markers.

## Lesson Timeline with Instructional Strategies & Learning Tasks (**This should be VERY DETAILED**)

Amount of Time	Teaching & Learning Activities	Describe what YOU (teacher) will be doing and/or what STUDENTS will be doing during this part of the lesson.
2-5 Minutes	<b>Introduction:</b> Video and Discussion	When I introduce this lesson, I will begin by showing the students an animated YouTube Video about plants and how they grow. We will discuss what nutrients plants need to thrive and what is harmful to these plants. We will also discuss tables and graphs and why they are important when looking at data over time.
30 minutes to 1 hour. Then 5 minutes per day for 4 weeks.	<b>Instruction:</b> Discussion with directions and the activity.	<p>I will bring out the needed supplies for the lesson. We will plant the seeds in the pots and cover them with soil. We will have four potted plants. The students will be separated into four groups. Each group will take care of their plant and record its growth every Friday. The first plant will receive water only. We will water it one time a day. It will sit in a shaded spot of our classroom.</p> <p>The second plant will receive sunlight only. It will not receive water and will sit by a window where it will get the most sunlight.</p> <p>The 3<sup>rd</sup> plant will sit under a UV light and will receive no water.</p> <p>The 4<sup>th</sup> plant will sit in a shaded corner and will receive no water.</p> <p>The plants are the dependent variable and the nutrients each plant receives are the independent variable.</p> <p>Before the students begin recording their data, we will do an exercise with example data, so they can practice making tables and graphing data.</p> <p>The students will take care of their plants daily but will only measure their plant growth on Fridays. Once the 4 weeks are complete, they will take their data and put it on a table. Once we have the data listed on a table, the students will make their graphs on graphing paper. They will color the separate groups, so they can tell them apart.</p> <p>I will also make a table and graph on Excel, so they can see if theirs match mine.</p>

Amount of Time	Teaching & Learning Activities	Describe what YOU (teacher) will be doing and/or what STUDENTS will be doing during this part of the lesson.
30 minutes	<b>Closure:</b> Data from other classes. Making tables and Graphing.	The other 2 <sup>nd</sup> grade classes performed the same experiment in their classrooms. We will take their data and ours to see which plants thrived in each class versus which ones died or did not grow. We will show the students that results may not always be the same and that is why we have multiple trials when conducting experiments.

**Accommodations/Modifications**

How might I modify instruction for: Remediation? Intervention? IEP/504? LEP/ESL?	Since this is a group activity/experiment, any students who need accommodations or modifications will still be able to participate and enjoy the project. I will make sure to only have the class work on this when these students are mainstreaming in our classroom. I will be inclusive when letting them participate and enjoy the activity with the rest of the class.
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**Differentiation:**

How might you provide a variety of instructional methods/tasks/instructional strategies to ensure all student needs are met?	I will first show the class by potting a plant myself. I will then show them a video time-lapse of what we will be doing over the course of 4 weeks. I will give oral instructions. Then the students will get to do this themselves (with my assistance).
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**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).	<input type="checkbox"/> Formative / <input type="checkbox"/> Summative	
	<input type="checkbox"/> Formative / <input type="checkbox"/> Summative	
	<input type="checkbox"/> Formative / <input type="checkbox"/> Summative	

**Research/Theory**

Identify theories or research that supports the approach you used.	
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**Lesson Reflection/Evaluation**

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