

Unit 3 - Data Collection and Research

Content Area: **Technology**
Course(s): **Technology 3**
Time Period: **March**
Length: **10 Classes**
Status: **Published**

Unit Overview

This unit will take approximately 10 classes.

Vocabulary for this unit includes: form, spreadsheet, cell, data, graph, chart, column, row, sizing, merge, border, shading, center, font, select all, insert, delete, sum, slideshow, transition, clip art, effects.

Priority Standards

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| CS.3-5.8.1.5.DA.1 | Collect, organize, and display data in order to highlight relationships or support a claim. |
| CS.3-5.8.1.5.DA.3 | Organize and present collected data visually to communicate insights gained from different views of the data. |

Essential Questions

- How can I prove the result of something I observed?
- How can I use data to help me make a decision?
- How can I work with others to solve a problem?
- How does a spreadsheet help me draw a conclusion from my data?
- How does a spreadsheet help me organize data?

Unit Learning Goals

- SWBAT collect data on the growth of their planted seed.
- SWBAT create a basic slideshow.
- SWBAT create a basic spreadsheet that can be used to collect data.
- SWBAT create a basic spreadsheet.
- SWBAT create a graph from data in a spreadsheet and explain the results.
- SWBAT create a graph from data in a spreadsheet and explain the results.
- SWBAT draw a conclusion from collected data.
- SWBAT identify and gather information about a selected plant

- SWBAT utilize collected information to create a slideshow

Unit Learning Targets

- I can add borders, shade, and add graphics in a spreadsheet.
- I can collect data on the growth of my seed.
- I can create a basic slideshow including slides, text, clip art transitions, effects
- I can create a graph from data in a spreadsheet and explain the results.
- I can create a slideshow that utilizes data and research to inform
- I can draw a conclusion from the data I have collected and add it to my slideshow.
- I can find and gather information about my plant.
- I can select all, navigate, size, format and enter data in a spreadsheet.

Marzano Elements

- Helping Students Examine Similarities & Differences
- Helping Students Examine their Reasoning
- Helping Students Practice Strategies, Skills, & Processes
- Helping Students Process New Content
- Helping Students Revise Knowledge
- Identifying Critical Content from the Standards
- Organizing Students to Interact with Content
- Previewing New Content
- Reviewing Content
- Using Formative Assessment to Track Progress

Strategies for Differentiating Instruction

- Allow and encourage more or less advanced conclusions based on student ability.
- Organize plant research for a student as needed including but not limited to: listing, assist recording data, assist with locating facts.
- Place students in groups based on ability and need.
- Spreadsheet / Slideshow - remove or add additional skills as needed per individual student ability level - Such as manually entering in formula, copy, pasting, formatting or tables and charts. Additional functions in a formula can be added. More or less advance features can be added to slideshow.
- When student shows advanced proficiency, allow them to assist other students.

Unit Assessments (Required)

- Assessment of student ability to create a basic spreadsheet and graph.
- Assessment of student ability to collect information.

- Assessment of student ability to draw a conclusion and recommendation.
- Assessment of student diorama and ability to use collected information to create it.
- Assessment of student ability to create a basic slideshow.

Unit Assessments (Optional)

None

Unit Learning Goals / Targets / Plans

| <u>Lesson / Activity</u> | <u>Standard / Learning Goal / Target</u> |
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| <p>Modeling and practice of: Navigation, sizing, entering data, and formatting of data</p> | <p>Standard: CS.3-5.8.1.5.DA.1 - Collect, organize, and display data in order to support a claim.</p> <p>Learning Goal: SWBAT create a basic spreadsheet.</p> <p>Learning Target: I can select all, navigate, size, format and enter data in a spreadsheet.</p> |
| <p>Review of last class and additional skills: borders, shading, select all, merge and wrap cells</p> | <p>Standard: CS.3-5.8.1.5.DA.1 - Collect, organize, and display data in order to support a claim.</p> <p>Learning Goal: SWBAT create a basic spreadsheet.</p> <p>Learning Target: I can add borders, shade, and add graphics in a spreadsheet.</p> |
| <p>Practice of learned skills and entering / formatting graphs and tosum</p> | <p>Standard: CS.3-5.8.1.5.DA.1 - Collect, organize, and display data in order to support a claim.</p> <p>Learning Goal: SWBAT create a graph from data in a spreadsheet and explain it.</p> <p>Learning Target: I can create a graph from data in a spreadsheet and explain it.</p> |

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| <p>planting a seed and setting up a data collection table.</p> | <p>Standard: CS.3-5.8.1.5.DA.1 - Collect, organize, and display data in order to support a claim.</p> <p>Learning Goal: SWBAT create a basic spreadsheet that can be used to collect data.</p> <p>Learning Target: I can create a spreadsheet to collect data.</p> |
| <p>plant research and plant growth data recording</p> | <p>Standard: CS.3-5.8.1.5.DA.1 - Collect, organize, and display data in order to support a claim. CS.3-5.8.1.5.DA.3 - Organize and present collected data visually to show insights gained from different views of the data.</p> <p>Learning Goal: SWBAT identify and gather information about a selected plant and record the growth of their planted seed.</p> <p>Learning Target: I can find and gather information about my plant and collect data on its growth.</p> |
| <p>creation of a basic slideshow including slides, transitions, effects and clip art</p> | <p>Standard: CS.3-5.8.1.5.DA.3 - Organize and present collected data visually to show insights gained from different views of the data.</p> <p>Learning Goal: SWBAT create a basic slideshow; SWBAT collect data on the growth of their planted seed.</p> <p>Learning Target: I can create a basic slideshow including slides, text, clip art and collect data about the growth of my planted seed.</p> |
| <p>create an informational slideshow that includes research and data.</p> | <p>Standard: CS.3-5.8.1.5.DA.3 - Organize and present collected data visually to show insights gained from different views of the data.</p> <p>Learning Goal: SWBAT utilize collected information to create a slideshow; SWBAT record the growth of their planted seed.</p> <p>Learning Target: I can create a slideshow that utilizes data and research to illustrate the growth of my planted seed.</p> |
| <p>develop a conclusion based on data collected from monitoring seed growth.</p> | <p>Standard: CS.3-5.8.1.5.DA.3 - Organize and present collected data visually to show insights gained from different views of the data.</p> |

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| | Learning Goal: SWBAT draw a conclusion from collected data. |
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| | Learning Target: I can draw a conclusion from the data I have collected and slideshow. |
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Technology Integration

Review technology standards as presented above in priority standards.

Cross Curricular Connections

- 3.MD.A Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.
- 3.MD.B Represent and interpret data.
- 3-ESS2-1. Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.
- 3-ESS2-2. Obtain and combine information to describe climates in different regions of the world

21st Century Life & Career Ready Practices

- CRP11 - Use technology to enhance productivity
- CRP2 - Apply appropriate academic and technical skills
- CRP4 - Communicate clearly and effectively and with reason
- CRP6 - Demonstrate creativity and innovation
- CRP8 - Utilize critical thinking to make sense of problems and persevere in solving them

Materials and Resources

[Google Drive](#)

[Google Sheets](#)

[Google Classroom](#)

[GoGuardian](#)

[Britannica.com](#)

[SafeSearch Kids](#)

[Kiddle](#)