Unit 1: Introduction to Google Sites

Content Area: **Technology**
Course(s): **Technology**
Time Period: **Generic Time Period**
Length: **6 Weeks**
Status: **Published**

Unit Overview

In this introductory course, students will focus on using the Google suite of online tools to work with documents, spreadsheets, and forms. Students will create e-portfolios, learn how to manage their Google Drives, and use the cloud to communicate and collaborate to solve problems. Students will practice their keyboarding skills.

Standards

TEC.5-8.8.1.8.A.1	Create professional documents (e.g., newsletter, personalized learning plan, business letter or flyer) using advanced features of a word processing program.
TEC.5-8.8.1.8.A.2	Plan and create a simple database, define fields, input data and produce a report using sort and query.
TEC.5-8.8.1.8.A.4	Generate a spreadsheet to calculate, graph and present information.
TEC.5-8.8.1.8.A.5	Select and use appropriate tools and digital resources to accomplish a variety of tasks and to solve problems.
TEC.5-8.8.1.8.B.1	Synthesize and publish information about a local or global issue or event on a collaborative, web-based service (also known as a shared hosted service).
TEC.5-8.8.1.8.B.1	Synthesize and publish information about a local or global issue or event on a web-based shared hosted service.

Essential Questions

How will improving keyboarding skills increase efficiency in creating documents and spreadsheets?

How might a student use Google Docs, Sheets, and Forms for school projects?

How can Google Sheets be used for organizing data and solving math problems?

What careers might use a spreadsheet program like Google Docs, Sheets, and Forms?

What are some ways that students can collaborate using Google Docs, Sheets, and Forms?

Application of Knowledge: Students will know that...

- Files and folders stored in Google Drive can be shared
- Google Docs is similar to Microsoft Word, and is an effective communication/word processing tool
- Google Drive is cloud-based, and anything stored in Drive can be accessed from any computer that has internet access
- Google Forms can be used to create surveys and collect information
- Google Sheets can help students work with complex numbers by allowing for quick calculations
- Google Sheets is useful for collecting data, creating graphs, and recording survey results
- Students can collaborate simultaneously on shared Google Docs and Sheets

Application of Skills: Students will be able to...

- Access their Google Drive, and create a new folder
- Format text style, size, and color
- Import and manipulate an image within Docs or Sheets
- In Docs -- manipulate margins and page layout
- In Sheets -- create a chart or graph
- In Sheets -- manipulate column and row sizes
- In Sheets -- use special spreadsheet formatting tools (borders and fill color, center and merge, autofill)
- Indentify and use main toolbar buttons for the correct functions (Docs and Sheets)
- Open and rename a Doc or Sheet
- Set up a document or sheet to print
- Share a Doc, Sheet, Form, or folder in Drive
- Use spreadsheet formulas to add, subtract, multiply, total, and average numbers
- Use the Undo button and built-in Spell Check tools

Assessments

Teacher-generated rubrics for successful completion of Google Docs interview, Google Forms survey, Google Sheets assignment, etc.

Suggested Activities

Students will access their accounts in Google Drive. Students will create a folder within Drive to act as their e-portfolio.

Students will practice opening and sharing Google Docs by interviewing each other:

- Student one will create a document and type at least five interview questions (i.e. What is your favorite flavor ice cream?, If you could have any superpower, what would it be and why?, etc.)
- Student one will share the document with another student assigned by the teacher
- Student two will open the shared document and work within it to answer the questions

- Student one will verbally share with the class one interesting thing they learned about student two
- All documents will be shared with the teacher

Students will practice opening and sharing a Google Form:

- Students will create three survey questions in a Google Form that use multiple choice, fill in the box, or choose from a list question type
- Students will share their surveys with the teacher and with other students in the class
- Students will use the results of their surveys to create graphs in Google Sheets

Students will practice opening and entering data in Google Sheets:

- Students will use the survey data from the Google Forms survey to enter into Sheets
- Students will practice adding values to cells, inserting and deleting cells, and manipulating cells
- Students will sort data and create a function (SUM, AVG, etc) with the data
- Students will convert data into a chart or graph
- Students will manipulate and format text within the sheet and add an image to the sheet
- Students will print a final sheet containing an image, text, and the graph/chart of data

Other suggested activities for using Google Docs, Forms, and Sheets:

- Students can collaborate to create a Class Newsletter based on happenings in their classroom or around the school
- Students can collect data on water usage in their home, and compare it with information found on the internet about average water usage. Students can collect and analyze this data in Sheets, and then write a proposal in Docs for how to conserve water (sample lesson plan in Resources below)
- Students can collect data on how well our school is doing with our "Go Green" initiative (i.e. how many classrooms use the recycle bins, how many students correctly dispose of recyclable/compostable waste at lunch, how much energy we are saving with solar panels, etc.) Students can write a letter to administration explaining the results and suggesting ways in which we can improve.
- Create a brochure/survey based on a topic in the 5th Grade curriculum, i.e. famous explorers, Revolutionary War events and people, US States, Solar System

Activities to Differentiate Instruction

Peer-to-peer "Tech Buddy" support

Students may work at their own pace/reduce scope of specific assignments

Advanced students may use their computer skills to enhance their assignments

Students who complete the daily assignment and are up-to-date on all projects may choose from one of the following activities if time permits in the period:

- Practice their math and ELA skills using recommended online educational websites provided by the teacher
- Play activities and games on teacher's website at www.quia.com
- Keyboarding exercises

- Smart Board Challenges

Integrated/Cross-Disciplinary Instruction

LAL -- practice writing skills

Math -- collecting data, creating surveys and graphs

Science -- water conservation and recycling

Other possible links to Grade 5 curriculum: Famous Explorers, Famous People from the Revolutionary War, US States, Solar System

Resources

Computer, classroom projection system, Smart Board

Google Drive and Apps

Teacher-prepared instructional slides and lesson packet

Teacher-prepared rubrics for assessment

Sample lesson -- Water Usage in Your Home: https://evolvingeducator.wordpress.com/2012/06/25/using-spreadsheets-in-the-classroom/

Sample ideas for Excel that can translate to Sheets: http://learntech.ties.k12.mn.us/Excel_Classroom_Projects