



ESL  
SCIENCE  
BUSINESS  
BILINGUAL  
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MATHEMATICS  
LIBRARY MEDIA  
SOCIAL STUDIES  
WORLD LANGUAGES  
GIFTED & TALENTED  
TECHNOLOGY EDUCATION  
ENGLISH LANGUAGE ARTS  
FINE & PERFORMING ARTS  
FAMILY & CONSUMER SCIENCE  
HEALTH & PHYSICAL EDUCATION

RAHWAY PUBLIC SCHOOLS

# CURRICULUM & INSTRUCTION

**Content Area: Business**

**Course: Information Processing &  
Multimedia Presentations**

**Grade Level: 9-12**

This curriculum is part of the Educational Program of Studies of the Rahway Public Schools.

## **ACKNOWLEDGMENTS**

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**Program Supervisor of 7-12 Math & Science and 9-12 Business & Technology Education**

The Board acknowledges the following who contributed to the preparation of this curriculum.

**Erik Podell, Business Teacher**

**Dr. Tiffany A. Beer, Director of Curriculum and Instruction**

Subject/Course Title:  
**Information Processing & Multimedia Presentations**  
**Grades 9-12**

Date of Board Adoption:  
**August 26, 2025**

# RAHWAY PUBLIC SCHOOLS CURRICULUM

Information Processing & Multimedia Presentations: Grades 9-12

## *PACING GUIDE*

<b>Unit</b>	<b>Title</b>	<b>Pacing</b>
1	Introduction to Google Docs	10 weeks
2	Introduction to Google Sheets	10 weeks
3	Introduction to Google Slides	10 weeks
4	Interactive Google Apps	10 weeks

## **ACCOMMODATIONS**

<p><b>504 Accommodations:</b></p> <ul style="list-style-type: none"> <li>● Provide scaffolded vocabulary and vocabulary lists.</li> <li>● Provide extra visual and verbal cues and prompts.</li> <li>● Provide adapted/alternate/excerpted versions of the text and/or modified supplementary materials.</li> <li>● Provide links to audio files and utilize video clips.</li> <li>● Provide graphic organizers and/or checklists.</li> <li>● Provide modified rubrics.</li> <li>● Provide a copy of teaching notes, especially any key terms, in advance.</li> <li>● Allow additional time to complete assignments and/or assessments.</li> <li>● Provide shorter writing assignments.</li> <li>● Provide sentence starters.</li> <li>● Utilize small group instruction.</li> <li>● Utilize Think-Pair-Share structure.</li> <li>● Check for understanding frequently.</li> <li>● Have student restate information.</li> <li>● Support auditory presentations with visuals.</li> <li>● Weekly home-school communication tools (notebook, daily log, phone calls or email messages).</li> <li>● Provide study sheets and teacher outlines prior to assessments.</li> <li>● Quiet corner or room to calm down and relax when anxious.</li> <li>● Reduction of distractions.</li> <li>● Permit answers to be dictated.</li> <li>● Hands-on activities.</li> <li>● Use of manipulatives.</li> <li>● Assign preferential seating.</li> <li>● No penalty for spelling errors or sloppy handwriting.</li> <li>● Follow a routine/schedule.</li> <li>● Provide student with rest breaks.</li> <li>● Use verbal and visual cues regarding directions and staying on task.</li> <li>● Assist in maintaining agenda book.</li> </ul>	<p><b>IEP Accommodations:</b></p> <ul style="list-style-type: none"> <li>● Provide scaffolded vocabulary and vocabulary lists.</li> <li>● Differentiate reading levels of texts (e.g., Newsela).</li> <li>● Provide adapted/alternate/excerpted versions of the text and/or modified supplementary materials.</li> <li>● Provide extra visual and verbal cues and prompts.</li> <li>● Provide links to audio files and utilize video clips.</li> <li>● Provide graphic organizers and/or checklists.</li> <li>● Provide modified rubrics.</li> <li>● Provide a copy of teaching notes, especially any key terms, in advance.</li> <li>● Provide students with additional information to supplement notes.</li> <li>● Modify questioning techniques and provide a reduced number of questions or items on tests.</li> <li>● Allow additional time to complete assignments and/or assessments.</li> <li>● Provide shorter writing assignments.</li> <li>● Provide sentence starters.</li> <li>● Utilize small group instruction.</li> <li>● Utilize Think-Pair-Share structure.</li> <li>● Check for understanding frequently.</li> <li>● Have student restate information.</li> <li>● Support auditory presentations with visuals.</li> <li>● Provide study sheets and teacher outlines prior to assessments.</li> <li>● Use of manipulatives.</li> <li>● Have students work with partners or in groups for reading, presentations, assignments, and analyses.</li> <li>● Assign appropriate roles in collaborative work.</li> <li>● Assign preferential seating.</li> <li>● Follow a routine/schedule.</li> </ul>
<p><b>Gifted and Talented Accommodations:</b></p> <ul style="list-style-type: none"> <li>● Differentiate reading levels of texts (e.g., Newsela).</li> <li>● Offer students additional texts with higher lexile levels.</li> <li>● Provide more challenging and/or more supplemental readings and/or activities to deepen understanding.</li> <li>● Allow for independent reading, research, and projects.</li> <li>● Accelerate or compact the curriculum.</li> <li>● Offer higher-level thinking questions for deeper analysis.</li> <li>● Offer more rigorous materials/tasks/prompts.</li> <li>● Increase number and complexity of sources.</li> <li>● Assign group research and presentations to teach the class.</li> <li>● Assign/allow for leadership roles during collaborative work and in other learning activities.</li> </ul>	<p><b>ELL Accommodations:</b></p> <ul style="list-style-type: none"> <li>● Provide extended time.</li> <li>● Assign preferential seating.</li> <li>● Assign peer buddy who the student can work with.</li> <li>● Check for understanding frequently.</li> <li>● Provide language feedback often (such as grammar errors, tenses, subject-verb agreements, etc...).</li> <li>● Have student repeat directions.</li> <li>● Make vocabulary words available during classwork and exams.</li> <li>● Use study guides/checklists to organize information.</li> <li>● Repeat directions.</li> <li>● Increase one-on-one conferencing.</li> <li>● Allow student to listen to an audio version of the text.</li> <li>● Give directions in small, distinct steps.</li> <li>● Allow copying from paper/book.</li> <li>● Give student a copy of the class notes.</li> </ul>

- Provide written and oral instructions.
- Differentiate reading levels of texts (e.g., Newsela).
- Shorten assignments.
- Read directions aloud to student.
- Give oral clues or prompts.
- Record or type assignments.
- Adapt worksheets/packets.
- Create alternate assignments.
- Have student enter written assignments in criterion, where they can use the planning maps to help get them started and receive feedback after it is submitted.
- Allow student to resubmit assignments.
- Use small group instruction.
- Simplify language.
- Provide scaffolded vocabulary and vocabulary lists.
- Demonstrate concepts possibly through the use of visuals.
- Use manipulatives.
- Emphasize critical information by highlighting it for the student.
- Use graphic organizers.
- Pre-teach or pre-view vocabulary.
- Provide student with a list of prompts or sentence starters that they can use when completing a written assignment.
- Provide audio versions of the textbooks.
- Highlight textbooks/study guides.
- Use supplementary materials.
- Give assistance in note taking
- Use adapted/modified textbooks.
- Allow use of computer/word processor.
- Allow student to answer orally, give extended time (time-and-a-half).
- Allow tests to be given in a separate location (with the ESL teacher).
- Allow additional time to complete assignments and/or assessments.
- Read question to student to clarify.
- Provide a definition or synonym for words on a test that do not impact the validity of the exam.
- Modify the format of assessments.
- Shorten test length or require only selected test items.
- Create alternative assessments.
- On an exam other than a spelling test, don't take points off for spelling errors.

## *UNIT 1 OVERVIEW*

**Content Area:** Business

**Unit Title:** Introduction to Google Docs

**Target Course/Grade Level:** Information Processing & Multimedia Presentations/Grades 9-12

**Unit Summary:** This unit introduces the importance of properly formatted documents using Google Docs. Students will learn a variety of documents and formatting practices. Students can use these concepts academically and professionally. Students will also have the opportunity to work on projects that simulate realistic business settings.

**Approximate Length of Unit:** 10 weeks

## *LEARNING TARGETS*

### **NJ Student Learning Standards:**

- 9.4.12.TL.1** Assess digital tools based on features such as accessibility options, capacities, and utility for accomplishing a specified task.
- 9.4.12.TL.2** Generate data using formula-based calculations in a spreadsheet and draw conclusions about the data.
- 9.4.12.TL.3** Analyze the effectiveness of the process and quality of collaborative environments.
- 9.4.12.TL.4** Collaborate in online learning communities or social networks or virtual worlds to analyze and propose a resolution to a real-world problem.
- 9.4.12.CT.2** Explain the potential benefits of collaborating to enhance critical thinking and problem solving.
- 9.4.12.CT.3** Enlist input from a variety of stakeholders (e.g., community members, experts in the field) to design a service learning activity that addresses a local or global issue (e.g., environmental justice).
- 9.4.12.IML.1** Compare search browsers and recognize features that allow for filtering of information.
- 9.4.12.IML.5** Evaluate, synthesize, and apply information on climate change from various sources appropriately.
- 9.4.12.IML.7** Develop an argument to support a claim regarding a current workplace or societal/ethical issue such as climate change.
- 9.4.12.GCA.1** Collaborate with individuals to analyze a variety of potential solutions to climate change effects and determine why some solutions (e.g., political, economic, cultural) may work better than others.

### **Career Readiness, Life Literacies, and Key Skills:**

- 9.3.12.BM.1** Utilize mathematical concepts, skills and problem solving to obtain necessary information for decision-making in business.
- 9.3.12.BM.2** Describe laws, rules and regulations as they apply to effective business operations.
- 9.3.12.BM.3** Explore, develop and apply strategies for ensuring a successful business career.
- 9.3.12.BM.4** Identify, demonstrate and implement solutions in managing effective business customer relationships.
- 9.3.12.BM.5** Implement systems, strategies and techniques used to manage information in a business.
- 9.3.12.BM.6** Implement, monitor and evaluate business processes to ensure efficiency and quality results.
- 9.3.IT.1** Demonstrate effective professional communication skills and practices that enable positive customer relationships.
- 9.3.IT.2** Use product or service design processes and guidelines to produce a quality information technology (IT) product or service.

**9.3.IT.5** Explain the implications of IT on business development.

### **Interdisciplinary Connections and Standards:**

#### **Computer Science and Design Thinking**

**8.1.12.DA.1** Create interactive data visualizations using software tools to help others better understand real world phenomena, including climate change.

**8.1.12.DA.2** Describe the trade-offs in how and where data is organized and stored.

**8.1.12.DA.5** Create data visualizations from large data sets to summarize, communicate, and support different interpretations of real-world phenomena.

#### **ELA**

**RI.IT.9–10.3** Analyze how an author unfolds ideas throughout the text, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them.

**W.IW.9–10.2** Write informative/explanatory texts (including the narration of historical events, scientific procedures/ experiments, or technical processes) to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

**W.WP.9–10.4** Develop and strengthen writing as needed by planning, revising, editing, rewriting, trying a new approach; sustaining effort to complete complex writing tasks; seeking out feedback and reflecting on personal writing progress; consulting a style manual (such as MLA or APA Style), focusing on addressing what is most significant for a specific purpose and audience.

**W.SE.9–10.6** Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation (MLA or APA Style Manuals).

#### **Mathematics**

**N.Q.A.1** Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.

**N.Q.A.2** Define appropriate quantities for the purpose of descriptive modeling.

**N.Q.A.3** Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

### **Unit Understandings:**

*Students will understand that...*

- Google Docs can be effectively utilized to create a wide array of document types for both academic and professional purposes, including but not limited to memos, letters, reports, flyers, announcements, resumes, and cover letters.
- Creating a professionally formatted document involves applying specific design principles and utilizing advanced features within Google Docs to ensure clarity, readability, and a polished appearance.
- Correct document formatting is crucial for conveying professionalism, ensuring clarity of communication, and enhancing the credibility of the content and its creator.
- Developing a professional resume and cover letter requires careful attention to content, structure, and precise formatting to effectively highlight skills and experiences for a specific job opportunity.

### **Unit Essential Questions:**

- What are the various documents that can be created in Google Docs?
- How is a professionally formatted document created?
- Why is it important to format a document correctly?
- How do you create a professional resume and cover letter?

## **Knowledge and Skills:**

### *Students will know...*

- The fundamental interface and core functionalities of Google Docs, including document creation, saving, sharing, and version history.
- Principles of effective document design and formatting for various purposes (e.g., academic, professional, marketing).
- Standard components and appropriate formatting for common business documents such as memos, professional letters (including two-page letters), flyers, announcements, resumes, cover letters, and multi-page reports.
- How to utilize advanced formatting features in Google Docs, including paragraph spacing, line spacing, indents, tabs, headers, footers, page numbering, columns, watermarks, and section breaks.
- The application and manipulation of graphical elements in Google Docs, such as inserting images, shapes, drawing tools, and using image formatting options (wrapping, positioning, effects).
- The effective use of tables and bulleted/numbered lists for organizing and presenting information clearly and professionally.
- The purpose and implementation of document themes and styles to maintain a consistent and coordinated look across multiple documents.
- The importance of proofreading, editing, and revising documents for clarity, grammar, spelling, punctuation, and overall professionalism.
- Collaborative features within Google Docs (sharing permissions, commenting, suggesting edits, real-time co-editing) and best practices for effective teamwork in a digital environment.
- The benefits of cloud-based document creation and storage for accessibility, collaboration, and data management.

### *Students will be able to...*

- Create, open, save, and manage documents in Google Docs, demonstrating proficiency with core functionalities.
- Apply a variety of text and paragraph formatting options (fonts, sizes, colors, alignment, spacing, indents) to create visually appealing and readable documents.
- Insert and format images, shapes, and drawings, utilizing various wrapping and positioning options to enhance document aesthetics.
- Construct and format tables to organize data effectively, including adding/deleting rows/columns, merging cells, and applying borders and shading.
- Create and manage bulleted and numbered lists to present information in an organized and concise manner.
- Design and produce professional business documents, including memos, single and two-page business letters, flyers, and announcements, adhering to standard formatting conventions.
- Develop a well-structured and properly formatted multi-page report, incorporating a cover page, table of contents, headers/footers, page numbers, and embedded charts or tables.
- Craft a compelling and professionally formatted resume and a customized cover letter tailored to specific job applications.
- Apply and maintain a consistent document theme and style set across multiple related documents.
- Effectively proofread, edit, and revise their own work and peer work, identifying and correcting errors in grammar, spelling, punctuation, and formatting.
- Collaborate effectively with peers on shared documents using Google Docs' commenting, suggesting, and real-time editing features to complete projects efficiently.
- Utilize Google Docs for real-world scenarios, such as creating business proposals, event flyers, or academic research papers.

- Access and navigate document version history to track changes and revert to previous versions if needed.

## ***EVIDENCE OF LEARNING***

### **Assessment:**

*What evidence will be collected and deemed acceptable to show that students truly “understand”?*

- End of Unit Common Assessment - See folder for assessment links.
- Students must complete end-of-section questions and activities.
- Students are also given mini-projects/assignments to test their practical knowledge of the topic.
- Do now questions, exit tickets, and independent classwork/homework.

### **Learning Activities:**

*What differentiated learning experiences and instruction will enable all students to achieve the desired results?*

- Students participate in a series of mini-projects, such as “Create a photo journal”, “The Resume Project”.
- Students will work on collaborative projects with peers.
- Google Docs Skills Scavenger Hunt
- The Resume & Cover Letter Workshop
- Collaborative Document Design Challenge
- Document Theme Creation & Application
- Multi-Page Report Simulation

## ***RESOURCES***

### **Teacher Resources:**

- [Google for Education: Applied Digital Skills](#)
- [Google Workspace Learning Center](#)
- [GCFGlobal.org - Google Docs Tutorials](#)
- [Purdue OWL](#)

### **Equipment Needed:**

- LCD Projector and laptop for daily lessons and projects

## ***UNIT 2 OVERVIEW***

**Content Area:** Business

**Unit Title:** Introduction to Google Sheets

**Target Course/Grade Level:** Information Processing & Multimedia Presentations/Grades 9-12

**Unit Summary:** This unit exposes students to the importance of Google Sheets and the various uses. Students will learn how to successfully format worksheets and incorporate formulas and graphs. These skills can be transferred to other academic areas and professionally.

**Approximate Length of Unit:** 10 weeks

## ***LEARNING TARGETS***

### **NJ Student Learning Standards:**

- 9.4.12.TL.1** Assess digital tools based on features such as accessibility options, capacities, and utility for accomplishing a specified task.
- 9.4.12.TL.2** Generate data using formula-based calculations in a spreadsheet and draw conclusions about the data.
- 9.4.12.TL.3** Analyze the effectiveness of the process and quality of collaborative environments.
- 9.4.12.TL.4** Collaborate in online learning communities or social networks or virtual worlds to analyze and propose a resolution to a real-world problem.
- 9.4.12.CT.2** Explain the potential benefits of collaborating to enhance critical thinking and problem solving.
- 9.4.12.CT.3** Enlist input from a variety of stakeholders (e.g., community members, experts in the field) to design a service learning activity that addresses a local or global issue (e.g., environmental justice).
- 9.4.12.IML.1** Compare search browsers and recognize features that allow for filtering of information.
- 9.4.12.IML.5** Evaluate, synthesize, and apply information on climate change from various sources appropriately.
- 9.4.12.IML.7** Develop an argument to support a claim regarding a current workplace or societal/ethical issue such as climate change.
- 9.4.12.GCA.1** Collaborate with individuals to analyze a variety of potential solutions to climate change effects and determine why some solutions (e.g., political, economic, cultural) may work better than others.

### **Career Readiness, Life Literacies, and Key Skills:**

- 9.3.12.BM.1** Utilize mathematical concepts, skills and problem solving to obtain necessary information for decision-making in business.
- 9.3.12.BM.2** Describe laws, rules and regulations as they apply to effective business operations.
- 9.3.12.BM.3** Explore, develop and apply strategies for ensuring a successful business career.
- 9.3.12.BM.4** Identify, demonstrate and implement solutions in managing effective business customer relationships.
- 9.3.12.BM.5** Implement systems, strategies and techniques used to manage information in a business.
- 9.3.12.BM.6** Implement, monitor and evaluate business processes to ensure efficiency and quality results.
- 9.3.IT.1** Demonstrate effective professional communication skills and practices that enable positive customer relationships.
- 9.3.IT.2** Use product or service design processes and guidelines to produce a quality information technology (IT) product or service.
- 9.3.IT.5** Explain the implications of IT on business development.

## **Interdisciplinary Connections and Standards:**

### **Computer Science and Design Thinking**

**8.1.12.DA.1** Create interactive data visualizations using software tools to help others better understand real world phenomena, including climate change.

**8.1.12.DA.2** Describe the trade-offs in how and where data is organized and stored.

**8.1.12.DA.5** Create data visualizations from large data sets to summarize, communicate, and support different interpretations of real-world phenomena.

### **ELA**

**RI.IT.9–10.3** Analyze how an author unfolds ideas throughout the text, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them.

**W.IW.9–10.2** Write informative/explanatory texts (including the narration of historical events, scientific procedures/ experiments, or technical processes) to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

**W.WP.9–10.4** Develop and strengthen writing as needed by planning, revising, editing, rewriting, trying a new approach; sustaining effort to complete complex writing tasks; seeking out feedback and reflecting on personal writing progress; consulting a style manual (such as MLA or APA Style), focusing on addressing what is most significant for a specific purpose and audience.

**W.SE.9–10.6** Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation (MLA or APA Style Manuals).

### **Mathematics**

**N.Q.A.1** Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.

**N.Q.A.2** Define appropriate quantities for the purpose of descriptive modeling.

**N.Q.A.3** Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

## **Unit Understandings:**

*Students will understand that...*

- Google Sheets is a versatile digital tool primarily used for organizing, analyzing, and visualizing quantitative data, making it indispensable for tasks such as financial tracking, project management, data analysis, and decision-making in various academic and professional contexts.
- Effective formatting of spreadsheets and workbooks is crucial for enhancing readability, clarity, and the professional presentation of data, utilizing features like borders, fill colors, font styles, and conditional formatting.
- Common formulas and functions are fundamental tools in Google Sheets for performing calculations and data manipulation, enabling users to automate processes, derive insights, and summarize information efficiently.
- Various types of charts can be created and customized in Google Sheets to effectively visualize data trends, comparisons, and distributions, allowing for clearer communication of complex information.
- Google Sheets can be creatively employed to construct and visualize timelines, providing a structured way to represent chronological events or project schedules.
- Google Sheets serves as a powerful companion to other Google Workspace applications, facilitating seamless data exchange, analysis, and integration to enhance productivity and comprehensive project development.

## Unit Essential Questions:

- What are Google Sheets used for?
- How are spreadsheets/workbooks formatted?
- What are the common formulas used?
- How are various charts created?
- How can Google Sheets be used to create timelines?
- How can Google Sheets be used as a companion to other Google Apps programs?

## Knowledge and Skills:

### *Students will know...*

- The fundamental interface and navigation of Google Sheets, including cells, rows, columns, worksheets, and workbooks.
- The purpose and advantages of using spreadsheets for organizing, analyzing, visualizing, and presenting quantitative data in academic and professional contexts.
- Effective strategies for data entry, organization, and validation within a spreadsheet.
- Basic to intermediate formula creation and application, including understanding cell references (relative, absolute, mixed) and order of operations.
- Common built-in functions used in Google Sheets such as SUM, AVERAGE, COUNT, MAX, MIN, IF, and basic statistical functions.
- Principles of effective worksheet formatting, including applying borders, fill colors, font changes, number formats (currency, percentage, date), conditional formatting, and merging cells.
- Different types of charts and graphs (e.g., bar, column, line, pie, scatter, pictograph) and when to use each for appropriate data visualization.
- The process of creating, customizing, and embedding charts in Google Sheets to effectively communicate data trends and insights.
- How Google Sheets can integrate and interact with other Google Workspace applications (e.g., importing data from Google Forms, exporting to Google Docs/Slides).
- The importance of accurately interpreting data from spreadsheets and drawing valid conclusions.
- Strategies for collaborating effectively on shared spreadsheets using Google Sheets' sharing, commenting, and version history features.

### *Students will be able to...*

- Create, open, save, and manage spreadsheets in Google Sheets, demonstrating proficiency with basic navigation and file management.
- Enter, organize, and manipulate data within cells, rows, and columns efficiently.
- Apply a variety of basic and intermediate formulas and functions (e.g., SUM, AVERAGE, COUNT, IF, mathematical operations) to perform calculations on data.
- Utilize relative, absolute, and mixed cell references appropriately in formulas to ensure accuracy and efficiency.
- Format worksheets professionally using borders, fill colors, font adjustments, number formatting, and conditional formatting rules.
- Create various types of charts and graphs (e.g., column, line, pie, pictograph), selecting the most appropriate chart type for specific datasets and objectives.
- Customize chart elements such as titles, labels, legends, axes, and data series to enhance clarity and visual appeal.
- Generate interactive data visualizations that help communicate insights from real-world phenomena.
- Analyze data sets to identify trends, patterns, and anomalies, drawing logical conclusions from the information presented.
- Collaborate in real-time on shared spreadsheets, utilizing commenting and revision history features effectively.

- Import and export data between Google Sheets and other applications, particularly other Google Workspace tools.
- Construct timelines in Google Sheets to represent historical events or project schedules.
- Apply problem-solving skills to use Google Sheets for practical applications such as budget tracking, grade calculation, inventory management, or event planning.
- Explain the implications of data organization and storage within a spreadsheet for data integrity and analysis.

## ***EVIDENCE OF LEARNING***

### **Assessment:**

*What evidence will be collected and deemed acceptable to show that students truly “understand”?*

- End of Unit Common Assessment - See folder for assessment links.
- Students must complete end-of-section questions and activities.
- Students are also given mini-projects/assignments to test their practical knowledge of the topic.
- Do now questions, exit tickets, and independent classwork/homework.

### **Learning Activities:**

*What differentiated learning experiences and instruction will enable all students to achieve the desired results?*

- Students participate in group activities, which require students to work together as a team to generate examples, solutions, and creative ideas as they relate to the lesson.
- Students participate in mini-projects, such as “Create a Study Schedule” and “Create a Budget”.
- Students will complete a series of mini projects related to each topic.
- Personal Finance Tracker Project
- Gradebook & GPA Calculator Simulation
- Event Planning & Logistics Spreadsheet
- Formula Challenge Race

## ***RESOURCES***

### **Teacher Resources:**

- [Google for Education: Applied Digital Skills](#)
- [Google Workspace Learning Center](#)
- [GCFGlobal.org - Google Sheets Tutorials](#)

### **Equipment Needed:**

- LCD Projector and laptop for daily lessons and projects

## *UNIT 3 OVERVIEW*

**Content Area:** Business

**Unit Title:** Introduction to Google Slides

**Target Course/Grade Level:** Information Processing & Multimedia Presentations/Grades 9-12

**Unit Summary:** This unit explores the uses of Google Slides to create a variety of professional presentations. Students will learn guidelines to follow when creating a presentation for a group, along with various formatting strategies and creative additions.

**Approximate Length of Unit:** 10 weeks

## *LEARNING TARGETS*

### **NJ Student Learning Standards:**

- 9.4.12.TL.1** Assess digital tools based on features such as accessibility options, capacities, and utility for accomplishing a specified task.
- 9.4.12.TL.2** Generate data using formula-based calculations in a spreadsheet and draw conclusions about the data.
- 9.4.12.TL.3** Analyze the effectiveness of the process and quality of collaborative environments.
- 9.4.12.TL.4** Collaborate in online learning communities or social networks or virtual worlds to analyze and propose a resolution to a real-world problem.
- 9.4.12.CT.2** Explain the potential benefits of collaborating to enhance critical thinking and problem solving.
- 9.4.12.CT.3** Enlist input from a variety of stakeholders (e.g., community members, experts in the field) to design a service learning activity that addresses a local or global issue (e.g., environmental justice).
- 9.4.12.IML.1** Compare search browsers and recognize features that allow for filtering of information.
- 9.4.12.IML.5** Evaluate, synthesize, and apply information on climate change from various sources appropriately.
- 9.4.12.IML.7** Develop an argument to support a claim regarding a current workplace or societal/ethical issue such as climate change.
- 9.4.12.GCA.1** Collaborate with individuals to analyze a variety of potential solutions to climate change effects and determine why some solutions (e.g., political, economic, cultural) may work better than others.

### **Career Readiness, Life Literacies, and Key Skills:**

- 9.3.12.BM.1** Utilize mathematical concepts, skills and problem solving to obtain necessary information for decision-making in business.
- 9.3.12.BM.2** Describe laws, rules and regulations as they apply to effective business operations.
- 9.3.12.BM.3** Explore, develop and apply strategies for ensuring a successful business career.
- 9.3.12.BM.4** Identify, demonstrate and implement solutions in managing effective business customer relationships.
- 9.3.12.BM.5** Implement systems, strategies and techniques used to manage information in a business.
- 9.3.12.BM.6** Implement, monitor and evaluate business processes to ensure efficiency and quality results.
- 9.3.IT.1** Demonstrate effective professional communication skills and practices that enable positive customer relationships.
- 9.3.IT.2** Use product or service design processes and guidelines to produce a quality information technology (IT) product or service.
- 9.3.IT.5** Explain the implications of IT on business development.

## **Interdisciplinary Connections and Standards:**

### **Computer Science and Design Thinking**

**8.1.12.DA.1** Create interactive data visualizations using software tools to help others better understand real world phenomena, including climate change.

**8.1.12.DA.2** Describe the trade-offs in how and where data is organized and stored.

**8.1.12.DA.5** Create data visualizations from large data sets to summarize, communicate, and support different interpretations of real-world phenomena.

### **ELA**

**RI.IT.9–10.3** Analyze how an author unfolds ideas throughout the text, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them.

**W.IW.9–10.2** Write informative/explanatory texts (including the narration of historical events, scientific procedures/ experiments, or technical processes) to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

**W.WP.9–10.4** Develop and strengthen writing as needed by planning, revising, editing, rewriting, trying a new approach; sustaining effort to complete complex writing tasks; seeking out feedback and reflecting on personal writing progress; consulting a style manual (such as MLA or APA Style), focusing on addressing what is most significant for a specific purpose and audience.

**W.SE.9–10.6** Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation (MLA or APA Style Manuals).

### **Mathematics**

**N.Q.A.1** Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.

**N.Q.A.2** Define appropriate quantities for the purpose of descriptive modeling.

**N.Q.A.3** Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

### **Unit Understandings:**

*Students will understand that...*

- Google Slides is an appropriate tool for creating a wide variety of professional presentations, including business pitches, academic reports, informational displays, educational lessons, and interactive content, due to its collaborative features and accessibility.
- An effective Google Slides presentation is characterized by clear communication, visual appeal, concise content, and thoughtful design, engaging the audience without overwhelming them with unnecessary information or distracting elements.
- Animation and graphics can be strategically incorporated into a presentation to enhance visual interest, highlight key information, and guide audience attention, provided they are used purposefully and do not detract from the main message.
- Google Slides presentations can be utilized in diverse settings, ranging from live in-person presentations to virtual meetings, self-running displays (kiosks), embedded web content, and printed handouts, adapting to various communication needs.

### **Unit Essential Questions:**

- What purposes are appropriate for Google Slides?
- What makes an effective Google Slides presentation?
- How can one incorporate animation and graphics in a presentation?
- Where can a Google Slides presentation be used?

## **Knowledge and Skills:**

### *Students will know...*

- The fundamental interface and navigation of Google Slides, including creating, organizing, sharing, and presenting slideshows.
- Core principles of effective presentation design, including audience analysis, message clarity, visual hierarchy, and the "less is more" philosophy for slides.
- The appropriate uses and limitations of Google Slides for different presentation contexts (e.g., business pitches, academic reports, informational displays, interactive lessons).
- Various methods for inserting and manipulating multimedia elements, such as images, videos, audio, and charts (including those imported from Google Sheets).
- Advanced formatting techniques for slides and objects, including themes, layouts, master slides, text formatting, object alignment, grouping, and layering.
- The purpose and application of animation effects (object animations) and slide transitions to enhance visual flow and audience engagement without distraction.
- Strategies for effectively presenting to a group include speaking clearly, maintaining eye contact, managing timing, and using speaker notes.
- The importance of accessibility options in digital presentations is to ensure that content is available to diverse audiences.
- Collaborative features within Google Slides (sharing permissions, commenting, suggesting edits, real-time co-editing) and best practices for team projects.
- How to prepare presentations for various delivery methods (live presentation, self-running kiosk, video export, printing handouts).

### *Students will be able to...*

- Create and structure a professional multi-slide presentation using Google Slides, demonstrating logical flow and clear communication.
- Select and apply appropriate slide layouts and themes, and customize them using master slides for consistent branding and design.
- Integrate and format various multimedia elements (images, videos, audio, charts from Google Sheets) effectively into slides.
- Manipulate pictures and graphics (crop, resize, rotate, add effects, transparency) to suit the presentation's design and message.
- Apply animation effects to objects and text, and select appropriate slide transitions to enhance visual appeal and pacing.
- Adjust presentation timing for self-running presentations or to align with a planned speaking duration.
- Utilize speaker notes effectively to guide their presentation delivery without distracting the audience.
- Design and deliver a presentation for a specific audience and purpose, adhering to guidelines for effective public speaking.
- Collaborate seamlessly with classmates on shared Google Slides presentations, leveraging commenting, suggesting, and real-time editing features.
- Create interactive elements within presentations (e.g., hyperlinked content, "choose your own adventure" style presentations).
- Assess the accessibility features of their presentations to ensure they can be understood by all potential audience members.
- Export or convert Google Slides presentations into various formats (PDF, PPTX, image files) for different uses.
- Troubleshoot common presentation issues related to formatting, media embedding, or playback.

## ***EVIDENCE OF LEARNING***

### **Assessment:**

*What evidence will be collected and deemed acceptable to show that students truly “understand”?*

- End of Unit Common Assessment - See folder for assessment links.
- Students must complete end-of-section questions and activities.
- Students are also given mini-projects/assignments to test their practical knowledge of the topic.
- Do now questions, exit tickets, and independent classwork/homework.

### **Learning Activities:**

*What differentiated learning experiences and instruction will enable all students to achieve the desired results?*

- Students participate in group activities, which require students to work together as a team to generate examples, solutions, and creative ideas as they relate to the lesson.
- Students participate in mini-projects, such as “Write and If/Then Adventure Story” and “Building Your Own Brand”.
- Students will complete a series of mini projects related to each topic.
- Pitch Your Passion Project
- Presentation Makeover Challenge
- Infographic Slide Design
- Timed Presentation Practice & Feedback

## ***RESOURCES***

### **Teacher Resources:**

- [Google for Education: Applied Digital Skills](#)
- [Google Workspace Learning Center](#)
- [GCFGlobal.org - Google Slides Tutorials](#)

### **Equipment Needed:**

- LCD Projector and laptop for daily lessons and projects

## *UNIT 4 OVERVIEW*

**Content Area:** Business

**Unit Title:** Interactive Google Apps

**Target Course/Grade Level:** Information Processing & Multimedia Presentations/Grades 9-12

**Unit Summary:** This unit explores the uses of additional Google Apps such as Google Drive, Google Forms, Google Translate, and Google Sites. Students will learn guidelines to follow for effective document management, creating forms, and developing a website.

**Approximate Length of Unit:** 10 weeks

## *LEARNING TARGETS*

### **NJ Student Learning Standards:**

- 9.4.12.TL.1** Assess digital tools based on features such as accessibility options, capacities, and utility for accomplishing a specified task.
- 9.4.12.TL.2** Generate data using formula-based calculations in a spreadsheet and draw conclusions about the data.
- 9.4.12.TL.3** Analyze the effectiveness of the process and quality of collaborative environments.
- 9.4.12.TL.4** Collaborate in online learning communities or social networks or virtual worlds to analyze and propose a resolution to a real-world problem.
- 9.4.12.CT.2** Explain the potential benefits of collaborating to enhance critical thinking and problem solving.
- 9.4.12.CT.3** Enlist input from a variety of stakeholders (e.g., community members, experts in the field) to design a service learning activity that addresses a local or global issue (e.g., environmental justice).
- 9.4.12.IML.1** Compare search browsers and recognize features that allow for filtering of information.
- 9.4.12.IML.5** Evaluate, synthesize, and apply information on climate change from various sources appropriately.
- 9.4.12.IML.7** Develop an argument to support a claim regarding a current workplace or societal/ethical issue such as climate change.
- 9.4.12.GCA.1** Collaborate with individuals to analyze a variety of potential solutions to climate change effects and determine why some solutions (e.g., political, economic, cultural) may work better than others.

### **Career Readiness, Life Literacies, and Key Skills:**

- 9.3.12.BM.1** Utilize mathematical concepts, skills and problem solving to obtain necessary information for decision-making in business.
- 9.3.12.BM.2** Describe laws, rules and regulations as they apply to effective business operations.
- 9.3.12.BM.3** Explore, develop and apply strategies for ensuring a successful business career.
- 9.3.12.BM.4** Identify, demonstrate and implement solutions in managing effective business customer relationships.
- 9.3.12.BM.5** Implement systems, strategies and techniques used to manage information in a business.
- 9.3.12.BM.6** Implement, monitor and evaluate business processes to ensure efficiency and quality results.
- 9.3.IT.1** Demonstrate effective professional communication skills and practices that enable positive customer relationships.
- 9.3.IT.2** Use product or service design processes and guidelines to produce a quality information technology (IT) product or service.
- 9.3.IT.5** Explain the implications of IT on business development.

## **Interdisciplinary Connections and Standards:**

### **Computer Science and Design Thinking**

**8.1.12.DA.1** Create interactive data visualizations using software tools to help others better understand real world phenomena, including climate change.

**8.1.12.DA.2** Describe the trade-offs in how and where data is organized and stored.

**8.1.12.DA.5** Create data visualizations from large data sets to summarize, communicate, and support different interpretations of real-world phenomena.

### **ELA**

**RI.IT.9–10.3** Analyze how an author unfolds ideas throughout the text, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them.

**W.IW.9–10.2** Write informative/explanatory texts (including the narration of historical events, scientific procedures/ experiments, or technical processes) to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

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**N.Q.A.2** Define appropriate quantities for the purpose of descriptive modeling.

**N.Q.A.3** Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

## **Unit Understandings:**

*Students will understand that...*

- Google Drive offers significant advantages for storing and sharing files, including cloud-based accessibility, robust collaboration features, efficient organization, and secure data backup, which are crucial for academic and professional productivity.
- Google Forms serves as an effective tool for collecting diverse types of data through surveys, quizzes, registrations, and feedback mechanisms, streamlining information gathering and analysis.
- Google Forms can be extensively customized with various question types, design options, and advanced features like branching logic, enabling users to tailor data collection instruments precisely to different needs and contexts.
- Google Translate provides valuable benefits academically and professionally by facilitating quick comprehension of foreign languages and enabling basic communication across language barriers, though its limitations for critical contexts must be understood.
- A well-designed website, particularly one created with Google Sites, can effectively display important information to a global audience, serving as a centralized hub for communication, resource sharing, and showcasing projects or portfolios.

## **Unit Essential Questions:**

- What are the advantages of using Google Drive for storing and file sharing?
- How can a form be used to collect data?
- How can forms be customized for different needs?

- What benefits can Google Translate have for your life, academically and professionally?
- How can a website help you display important information to the world?

### **Knowledge and Skills:**

*Students will know...*

- The architecture and functionalities of Google Drive as a cloud-based storage, organization, and collaboration platform.
- Best practices for file and folder organization within Google Drive to ensure efficient access and management.
- Sharing permissions and collaboration settings in Google Drive to control access levels (viewer, commenter, editor) and work effectively in teams.
- The purpose and different types of questions available in Google Forms for collecting various forms of data (surveys, quizzes, registrations, feedback).
- Advanced features of Google Forms, such as branching logic (go to section based on answer), response validation, quiz settings (auto-grading), and add-ons.
- How Google Forms seamlessly integrates with Google Sheets for data collection and analysis.
- The capabilities and limitations of Google Translate for real-time translation of text, speech, and documents in academic, professional, and everyday contexts.
- The ethical considerations and potential inaccuracies when relying solely on machine translation tools like Google Translate, especially for critical or formal communications.
- The fundamental principles of web design for creating effective and user-friendly websites, including navigation, layout, content organization, and visual appeal.
- The basic features and components of Google Sites, such as pages, content blocks, themes, embedding content, and publishing options.
- The importance of accessibility in web design to ensure websites are usable by individuals with diverse needs.
- How various Google Apps (Docs, Sheets, Slides, Forms) can be embedded or linked within a Google Site to create a rich, interactive web presence.

*Students will be able to...*

- Navigate and manage files and folders effectively in Google Drive, including creating, uploading, downloading, moving, starring, and searching for content.
- Implement secure and efficient file sharing strategies in Google Drive, setting appropriate permissions for collaborative projects.
- Design and create various types of Google Forms for specific purposes (e.g., student feedback survey, event registration, pop quiz, data collection for a research project).
- Utilize different question types and advanced form features like branching, validation, and quiz settings to create dynamic and intelligent forms.
- Analyze and interpret data collected through Google Forms by linking responses to Google Sheets and applying basic data analysis techniques.
- Assess the utility of Google Translate for quick translations, understanding its strengths for casual use and its limitations for professional or academic documents requiring high accuracy.
- Construct a functional and visually appealing website using Google Sites, incorporating multiple pages, text, images, and other multimedia.
- Embed content from other Google Apps (Docs, Sheets, Slides, Forms) directly into a Google Site to create a cohesive information hub.
- Design a website with user experience (UX) and accessibility in mind, ensuring clear navigation and readable content.
- Collaborate with peers on Google Drive, Forms, and Sites projects, leveraging sharing and editing features.

- Publish a Google Site and understand the options for making it public or restricted.
- Explain the benefits of cloud-based document management and its implications for teamwork and accessibility.

## ***EVIDENCE OF LEARNING***

### **Assessment:**

*What evidence will be collected and deemed acceptable to show that students truly “understand”?*

- End of Unit Common Assessment - See folder for assessment links.
- Students must complete end-of-section questions and activities.
- Students are also given mini-projects/assignments to test their practical knowledge of the topic.
- Do now questions, exit tickets, and independent classwork/homework.

### **Learning Activities:**

*What differentiated learning experiences and instruction will enable all students to achieve the desired results?*

- Students participate in group activities, which require students to work together as a team to generate examples, solutions, and creative ideas as they relate to the lesson.
- Students participate in mini-projects, including creating surveys, quizzes, advertisements, and websites.
- Digital Portfolio on Google Drive
- Community Needs Assessment Survey
- Multilingual Information Campaign
- Interactive Quiz/Escape Room with Google Forms
- Website Accessibility Audit

## ***RESOURCES***

### **Teacher Resources:**

- [Google for Education: Applied Digital Skills](#)
- [Google Workspace Learning Center](#)
- [GCFGlobal.org - Google Drive, Forms, Sites Tutorials](#)

### **Equipment Needed:**

- LCD Projector and laptop for daily lessons and projects