SHORE REGIONAL HIGH SCHOOL DISTRICT
A Regional Collaborative of the Communities Served by the Monmouth Beach, Oceanport, Shore Regional, and West Long Branch School Districts

Aligned to the New Jersey Student Learning Standards as Applicable

Course Title: Education, Business, Technology Applications
Content Area: Technology
Grade Level(s): Ninth
Course Description: This course will provide all ninth graders with an exploration of the various Google applications in the Google Suite. The course is designed to develop in students a sense of wise decision making regarding the use of technological tools and resources to ensure success for academic tasks. This course will also focus on career education with an emphasis on how these technological applications are used or will be used with various professions.
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Pacing Guide

Unit 1 Google Search	2 Weeks
Unit 2 Gmail/Google Drive	1 Week
Unit 3 Google Docs/Library Databases	5 Weeks
Unit 4 Google Slides	3 Weeks
Unit 5 Google Sheets	5 Weeks
Unit 6 Google Forms and Other Applications	2 Weeks

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Unit 1 Google Search

Unit Summary:

Students will understand the necessary skills to develop an effective search query. Students will be able to analyze each source in their search result and understand the components within an individual search. Students will understand how to use filters and search tools to narrow a search as well as use Boolean operators to help problem solve in the search process.

Interdisciplinary Connections/Content Area Integrations Including Technology:

English Language Arts

Social Studies

Mathematics

Art

Science

NJSLS Number	NJSLS Content
8.1 Educational Technology	All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge. Strand A: The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.

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Summative Assessments:

Students will be provided with a question and asked to develop an effective search query.

Search Project, Test

Formative Assessments:

Do Now, Oral Questioning, Homework, Quiz, Class Discussion, Student Graded Assignment, Exit Card

Enduring Understandings:

Students will understand that the words they choose to type into a search tool, such as Google, have a direct connection to the sources that are suggested by their results.

Students will understand how to take real-world questions and topics and convert them into a set of search terms to use for developing queries.

Students will understand how to identify search terms and create queries for their own research projects.

Students will understand the elements they can expect to see in the Google results page and its parts.

Students will understand how to identify the components of each individual search result.

Students will understand how to make educated decisions about what the source page might contain and anticipate webpage content based on web addresses.

Students will understand what strategies can be used to build on search results to search for and collect evidence.

Essential Question:

How can appropriate search terms and queries guide targeted searches?

How can I figure out the right search terms to develop a query?

How are my search terms interpreted to gather information for me?

How and why do researchers evaluate search results?

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What appears on my search results screen?
Are there problems with the results, or are they on target with my task?
What do I need to know to help me choose the right links?
How can I narrow my search to get the best results?

What filtering strategies help me find accessible sources from the Web?

What are operators, and how can I use them to narrow my search?

Instructional Outcomes:

Students will be able to use of a four-step process to develop an effective search query:

1. Identify keywords that are essential to communicating your need.
2. Use of alternative phrasing (different ways of expressing the same idea more concisely).
3. Add missing words that may communicate a specific/targeted result.
4. Eliminate any unnecessary words that may be impeding search results.

Students will be able to identify what matters/does not matter in an effective search query.

Students will be able to identify components of a search results page.

Students will be able to identify components of an individual search result.

Students will be able to use filters and search tools to narrow search results.

Students will be able to use operators to solve problems that appear in search results.

Suggested Learning Activities:

Show the three-minute video entitled "How Search Works" and discuss as a class.

Illustrate results of using ineffective search terms and why this happens.

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Parsing a question and demonstrating the four-step process to developing an effective search query.

Divide students into small groups and give each group a question to change into a query. Have each group come to the board and discuss as a class.

Students create a web (or list) as an instrument to develop key search terms to use for their queries (graphic organizer).

Individual activity - turn a question into an effective search query.

Explore the search results page and discuss. Ask students to identify the search bar, ads, natural results, and filters on the screenshot by marking up the handout - "Search Results Page".

Identify the main parts of an individual search result. Ask students to identify the title, web address, snippet, bolded words, and ellipses on the screenshot by marking up the handout.

Research migration of monarch butterflies for an informational paper. Look at each web address and discuss what kind of information one would expect to see. Students decode web addresses and share what they suggest about the sources located at each (*.com, .org, .edu, .gov, or .tv).*

Identify location of filtering tools and "search tools". Discuss that filters take the results for a search that was conducted and sifts through all of them to find only specific items that meet determined criteria.

Demonstrate how to narrow a search using filters to collect different items. Google Search Filter Activity - select topic and provide a roadmap of sources and filters used for various types of media.

Demonstrate the use of the search operators (OR, quotation marks, and the minus sign). Students in groups search for various topics and use operators to improve the search results.

"A Google a Day" Search game to help better their search skills.

Suggested Differentiation:
Allow students to work in groups.
Break information into smaller parts (chunking).
Provide written notes for each topic.

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Provide graphic organizers.

Provide visual presentations and videos.

Vary search topics.

Curriculum Development Resources:

Beginner "Picking the Right Search Terms" Lesson Presentation

Video: "How Search Works"

Beginner "Understanding Search Results" Presentation

"Search Results Page"

"Monarch Web Addresses"

"What Might You Find in These Web Addresses?"

Beginner "Narrowing a Search to Get the Best Results" Lesson Presentation

Notes/Comments:

Discuss the evolution of Search and where Search is going from here.

Unit 2 Gmail/Google Drive

Unit Summary:

Students will understand the importance of digital communication within school, community, and work environments through the use of Gmail. Students will learn to create folders to organize their Gmail account. Students will learn the advantages of cloud computing and the features of Google Drive to allow for increased productivity and collaboration.

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Interdisciplinary Connections/Content Area Integrations Including Technology:

English Language Arts

Social Studies

Mathematics

Art

Science

NJSLS Number	NJSLS Content
8.1 Educational Technology	All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge. Strand A: The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.

Summative Assessments:

Color-coded subject folders with teacher/advisor filters applied.

File Upload Activity, Test

Formative Assessments:

Do Now, Oral Questioning, Homework, Quiz, Class Discussion, Student Graded Assignment, Exit Card

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Enduring Understandings:

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Students will understand how to effectively communicate through the use of Gmail and personalize Gmail settings to accommodate preferences such as: display density, conversation view, undo send, adding stars, desktop notifications, signature, and vacation responder.

Students will understand how to mark e-mails and put them into preset files and folders, including the difference between starred and important folder.

Students will understand how to set background themes or upload images to themes.

Students will understand how to organize their Gmail account further by creating and color coding custom folders and applying filters to the folders.

Students will understand the advantages and features of Google Drive (access, storage, sharing, collaborating, and uploading files and folders).

Essential Questions:

What is Gmail? How do we use it effectively to communicate our needs?

How can I change settings to help personalize my Gmail account?

How can I compose an e-mail?

What are the ways that I can send an e-mail?

How can I save in drafts, delete e-mail messages, and mark unwanted messages?

How can I create folders to save e-mails that pertain to a specific subject?

What are the advantages of cloud computing and Google Drive?

How can I store and access files and folders?

How can I share and collaborate with others?

How can I upload files and folders from various forms of storage to my Google Drive?

Instructional Outcomes:

Students will be able to use the various Gmail settings to personalize their account.

Students will be able to compose and send Gmail (use of reply only, reply all, forward, and cc and bcc).

Students will be able to organize their Gmail inbox, starred versus important folders.

Students will be able to file read e-mails into appropriate folders, create custom color-coded folders, and apply filters.

Students will be able to identify the advantages and features of cloud computing/Google Drive.

Aligned to the New Jersey Student Learning Standards as Applicable

Students will be able to use share settings and collaboration.

Students will be able to use my drive, shared drive, starred, recent, and trash.

Students will be able to access various applications including: Docs, Slides, Sheets, and Forms.

Students will be able to upload files and folders to Google Drive.

Suggested Learning Activities:

Show video Gmail tutorial: https://www.youtube.com/watch?v=AGiFkJDwG-k. Pause to demonstrate and discuss.

Gmail presentation: https://docs.google.com/presentation/d/14gsdP5Dk_eWRe3pEMirTUJSrFAb5RY7pr-4R6yX7er4/edit#slide=id.gca3a7b1de_0_6.

Gmail custom class folder and advisor filter activity.

Personalized folders in Google Drive.

Blue Devil image upload activity.

Suggested Differentiation:

Allow students to work in groups.

Break information into smaller parts (chunking).

Provide written notes for each topic.

Provide visual presentations and videos.

Customize settings and folders.

Curriculum Development Resources:

Certified Google instructor presentations

Google Apps for Education

GFC Learning tutorials

Cloud Monitor

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Aligned to the New Jersey Student Learning Standards as Applicable

Notes/Comments:

Unit 3 Google Docs/Library Databases

Unit Summary:

Students will become proficient with the features and functionality of Google Docs. This will include creating, editing, sharing, and collaborating on documents such as: announcements, fliers, brochures, reports, letters, and resumes with a professional end product.

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English Language Arts

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Mathematics

Art

Science

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Aligned to the New Jersey Student Learning Standards as Applicable

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Summative Assessments:

Poster Project, Test

Formative Assessments:

Do Now, Oral Questioning, Homework, Quiz, Class Discussion, Student Graded Assignments, Exit Card

Enduring Understandings:

Students will understand the features and functionality of Google Docs.

Essential Questions:

How do you create and modify documents?

How can text within a document be formatted for various needs?

How can information in a document be spaced and aligned to make it neat and professional?

How can a document be modified for better readability?

What can be inserted into a document to display text and numerical data?

What are the ways that an image can be inserted into a document?

Instructional Outcomes:

Students will be able to use the basic features (page setup, margins, inserting and deleting text, cut, copy, and paste commands, and find and replace).

Students will be able to use formatting options (font, alignment, and line and paragraph spacing).

Students will be able to use alignment tools (indents, tabs, and lists).

Students will be able to modify layout options (headers, footers, page breaks, horizontal lines, page numbers, wordcount, and footnotes).

Students will be able to display text and numerical data with the use of tables.

Students will be able to insert images via upload, URL, your albums, Google Drive, and Google Search.

Aligned to the New Jersey Student Learning Standards as Applicable

Suggested Learning Activities:

Google Doc Thank You Letter Basic Features Activity

https://docs.google.com/document/d/1najVjR-IkAN3AN7X8ztY5ymzCKV32TFhjazQADzdtwc/edit

Silent Auction Announcement Formatting Activity

https://docs.google.com/document/d/1Ye2tmMwxCxqLuBLthG7surTmlB6QGSyQ72Ovq7qpPm8/edit

Cover Letter and Resume Alignment Activity

https://docs.google.com/document/d/1QRn2QmU09OIPiHveCwYUqKS3DDk6LiIKbwKKdwXRHoI/edit

Alliope Systems Sales and Marketing Report Modifying Layout Activity

https://docs.google.com/document/d/1QRn2QmU09OIPiHveCwYUqKS3DDk6LiIKbwKKdwXRHoI/edit

Science Lab Data Table Activity

https://docs.google.com/document/d/1TXjuRWbX2iwyWoe7wgR0lB94w1B1imfl-7M3Cl3CZkE/edit

Birthday Card Insert Image Assignment

https://docs.google.com/document/d/16Iw49H9qVss-YgRAycgCyzTVayh2N2nd-p3X-svwBeE/edit

Poster Project in Groups

Suggested Differentiation:

Allow students to work in groups.

Break information into smaller parts (chunking).

Provide written notes for each topic.

Provide visual presentations and videos.

Allow different topics for project.

Curriculum Development Resources:

Certified Google instructor presentations

Google Apps for Education

Aligned to the New Jersey Student Learning Standards as Applicable

GFC Learning tutorials Cloud Monitor
Notes/Comments:

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Unit 4 Google Slides

Unit Summary:
Google Slides are a means of communication which can be adapted to various speaking situations, such as: talking to a group, addressing a meeting, or briefing a team by using slides. This unit will allow students to create dynamic slideshow presentations for any content area. Students will understand the features and functions such as inserting images, videos, tables, lines, text boxes, and links as well as the use of animation and transition. Students will be able to present their chosen topic to the class.

Interdisciplinary Connections/Content Area Integrations Including Technology:
English Language Arts

Aligned to the New Jersey Student Learning Standards as Applicable

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Social Studies

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Science

Summative Assessments:

Create and present a slideshow presentation.

Formative Assessments:

Do Now, Oral Questioning, Homework, Quiz, Class Discussion, Student Graded Assignments, Exit Card

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Enduring Understandings:

Students will understand how to use the features and functions of Google Slides to create a dynamic slideshow presentation for any content area.

Essential Questions:

How can background color or images be added to a slide?

How can slides be added and reordered in a presentation?

What layout options are available when creating a slide for various needs?

How can the content on a slide be formatted, aligned, and spaced?

How can various items be inserted into a slide (images, videos, text boxes, shapes, word art, tables, lines, and links)?

How can slide presentations be more dynamic?

How can animation and transition be added to a presentation?

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Instructional Outcomes:

Students will be able to add background color and images to slides.

Students will be able to add and reorder slides.

Students will be able to identify and select layout options when creating slides.

Students will be able to format, align, and space content on slides.

Students will be able to insert various items into slides (images, videos, text boxes, shapes, word art, tables, lines, and links).

Students will be able to add animation and transition to a presentation.

Suggested Learning Activities:

Create a slide presentation that will be layered with each lesson.

Present the slideshow to an audience.

Suggested Differentiation:

Allow students to work in groups.

Break information into smaller parts (chunking).

Provide written notes for each topic.

Provide visual presentations and videos.

Allow different topics for presentations.

Allow student to present privately.

Curriculum Development Resources:

Certified Google instructor presentations

Google Apps for Education

GFC Learning tutorials

Cloud Monitor

Aligned to the New Jersey Student Learning Standards as Applicable

Notes/Comments:

Unit 5 Google Sheets

Unit Summary:

With the use of a spreadsheet application, students will be able to compile and display data in an organized way. Many features and formatting options will be used to enhance the capabilities and performance of the spreadsheet. The use of various formulas and multiple functions will be used to arrive at meaningful results. Results will be able to be analyzed and interpreted through the use of charts and graphs.

Interdisciplinary Connections/Content Area Integrations Including Technology:

English Language Arts

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Science

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Aligned to the New Jersey Student Learning Standards as Applicable

8.1 Educational Technology	8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge. Strand A: The use of technology and digital tools requires knowledge and appropriate use of operations and related applications.

Summative Assessments:

Pokemon Gradebook Project, Test

Formative Assessments:

Do Now, Oral Questioning, Homework, Quiz, Class Discussion, Student Graded Assignments, Exit Card

Enduring Understandings:

Students will understand how to create a spreadsheet for various needs, entering, modifying, and formatting data so that it is organized and more readable. Formulas and functions will be entered to make calculations easy to enter and update. Sorting and filtering features will allow students to look at data in different ways and to help find specific data.

Essential Questions:

How can data be organized in a spreadsheet?
How can data/information be moved or copied into other cells?
How can spreadsheet cells be modified to fit my needs?
What formatting and alignment options are available to make the spreadsheet more readable?
How can simple and complex formulas be used to calculate values?
What functions can be used to make complex calculations easier?
What is the difference between relative and absolute references, and how do they affect formulas in a spreadsheet?

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How can data in a spreadsheet be sorted to look at it in different ways?

How can data be filtered out so only specific data needed is shown?

Instructional Outcomes:

Students will be able to organize data in a spreadsheet.

Students will be able to move and copy data/information into other cells.

Students will be able to modify spreadsheet cells to fit their needs.

Students will be able to use formatting and alignment options to make a spreadsheet more readable.

Students will be able to use simple and complex formulas to calculate values.

Students will be able to use functions to make complex calculations easier.

Students will be able to identify the difference between relative and absolute references and how they affect formulas in a spreadsheet.

Students will be able to sort data in a spreadsheet in different ways.

Students will be able to filter data in a spreadsheet.

Suggested Learning Activities:

Teacher gradebook spreadsheet project calculating homework averages, quiz averages, test averages, final exam scores, and final grades for a class.

Field Trip Checklist Basic Features

https://docs.google.com/spreadsheets/d/187XOf1wi6BswDSbq_Uct_AxJaxWf6B9k1YWV_nmli-E/edit#gid=0

Houses to Visit Modification Activity

https://docs.google.com/spreadsheets/d/1Xml3Opgc0Sn2vjQajD6SkC_V2VnHSM3cS7z-psV6Bow/edit#gid=0

Garden Inventory Cell Formatting Activity

https://docs.google.com/spreadsheets/d/1B2CZaby69oFmTQNmfyYlkZrh6VaQGRYa6l1gbXmZIy0/edit#gid=0

Classroom Budget Activity Entering Simple Formulas

https://docs.google.com/spreadsheets/d/1srPJczIMCs6sDfDPGKc6njrvOgpQP8tLF3mY01dvXOk/edit#gid=0

IT Order Form Activity Entering Complex Formulas

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https://docs.google.com/spreadsheets/d/1SbaS99e-5cQBKi9TF8n1ynVeZ052QJd-rhgsXFZ7DE8/edit#gid=0

Monthly Expense and Order Form Cell Reference Activity

https://docs.google.com/spreadsheets/d/1bu7bEk8G6RXTIeL35w-BW06EEof7DN7XCyxWBiJEVYs/edit#gid=0

Library Books on Loan Sorting and Filtering Activity

https://docs.google.com/spreadsheets/d/1IPeLOZ1ulCVrN081qyuCCUeokPl4ZaYKrg532ApBGTU/edit#gid=0

Suggested Differentiation:

Allow students to work in groups.

Break information into smaller parts (chunking).

Provide written notes for each topic.

Provide presentations and demonstrations.

Provide students with review sheets.

Curriculum Development Resources:

Certified Google instructor presentations

Google Apps for Education

GFC Learning tutorials

Cloud Monitor

Notes/Comments:

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Unit 6 Google Forms and Other Applications

Unit Summary:

Students will create Google Forms to collect data such as that which is included in surveys and quizzes. Using nine different question types, students will customize Google Forms to gather specific data. Form settings will be established prior to sending out the form to allow for more control over data. Using additional tools, students will be able to add items to a form such as titles, descriptions, images, and videos. Form responses will be gathered in spreadsheets, charts, and graphs to be interpreted.

Interdisciplinary Connections/Content Area Integrations Including Technology:

English Language Arts

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Summative Assessments:
Freshmen year form sent out to classmates with three responses, Test

Formative Assessments:
Do Now, Oral Questioning, Homework, Quiz, Class Discussion, Student Graded Assignments, Exit Card

Enduring Understandings:
Students will understand how to create Google Forms to collect data such as that which is included in surveys and quizzes.

Essential Questions:
How can a form be used to collect data?
How can forms be customized for different needs?
How can the form be viewed before sending it out?
Who can respond to a form?
How can a form be set to allow only one response?
How can a user edit his or her response?
How can question order be varied in the form?
How will the user know when the form has been submitted?
Can the user see a summary of responses?
What are the ways in which a form can be sent out?
How can different question types be posed?
Can questions be set to required or optional?
Can responses to the form be turned off?

Aligned to the New Jersey Student Learning Standards as Applicable

How can the summary of responses be viewed in a form?   What other applications are available and helpful to everyday tasks?
Instructional Outcomes: Students will be able to create a Freshmen class survey to gather and analyze data from their classmates.   Students will be able to use additional Google applications.
Suggested Learning Activities: Create a Form Assignment   https://docs.google.com/document/d/1ZQ0iNvTlBHQBnILdHphg3uyl6dWCrXLgJlfbrwUXN2w/edit
Suggested Differentiation: Allow students to work in groups.   Break information into smaller parts (chunking).   Provide written notes for each topic.   Provide presentations and demonstrations   Provide students with review sheets
Curriculum Development Resources: Certified Google instructor presentations   Google Apps for Education   GFC Learning tutorials   Cloud Monitor
Notes/Comments:

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