Montague Township School Curriculum Guide Business Applications- STEM Course (Grade 5)

Course Description: Business Applications introduces students to basic Google tools and focuses on collaboration, communication, and productivity through the completion of real world, student-centered activities and projects. Additionally, this course provides students with instruction in basic computer skills and provides the foundation for more advanced middle school STEM courses and cross-curricular projects. Students will learn to understand computer related terms and identify computer hardware components and peripheral devices. Students will acquire knowledge of word-processing, keyboarding, and Google Suite programs to create authentic applications. They will understand the legal, social and ethical issues related to the use of computers in daily life, including internet safety practices.

Format/Mapping/Sequence: The format in which the curriculum is written follows the parameters of Understanding by Design. Each course curriculum document is written as a series of units containing established goals, enduring understandings, essential questions, and the necessary skills and knowledge a student must attain in a school year. In addition, each document stipulates resources, required tasks, and assessments. Teachers are expected to design lessons that will meet the requirements stipulated in this document; however, they are provided flexibility in how they choose to meet these demands. As well, the order of the units is a suggestion and a teacher may introduce the units as he/she feels best meets the needs of the class, keeping in mind the scaffolding of skill development suggested.

Pacing: Business Applications is a required elective course that meets every other day over the course of a trimester, 40-minutes per session, and is currently open to students in grade 5. There are 6 student-centered units, each designated to focus on a specific program or skill. Each of the units provides a suggested time frame, taking into consideration the time needed to differentiate for a variety of learners.

Resources: In each unit, both electronic and print resources are provided. It is the intention that teachers will be able to access the curriculum document on the district website as well as be able to add to the resources lists periodically throughout the school year. A valuable site that should be referenced in planning https://www.nj.gov/education/standards/

Adopted Resources:

Google Suite Adobe Acrobat Typing.com Common Sense Media Digital Citizenship Curriculum

Additional Resources:

Pixabay
Canva
OER Commons
Career Zone

Unit 1:

Safety and Ethics in Media Use- Students will review and evaluate Montague Township School's Acceptable Use Policy. Students will also learn and apply safe online behaviors.

Timeframe	1 week
Subject/Topic	Business Applications

Desired Results

Content Area NJSLS:

Career Readiness, Life Literacies, and Key Skills Practices CRLLKSP 1 Act as a responsible and contributing community members and employee.

Students understand the obligations and responsibilities of being a member of a community, and they demonstrate this understanding every day through their interactions with others. They are conscientious of the impacts of their decisions on others and the environment around them. They think about the near-term and long-term consequences of their actions and seek to act in ways that contribute to the betterment of their teams, families, community and workplace. They are reliable and consistent in going beyond the minimum expectation and in participating in activities that serve the greater good.

CRLLKSP 2 Attend to financial well-being.

Students take regular action to contribute to their personal financial well-being, understanding that personal financial security provides the peace of mind required to contribute more fully to their own career success.

CRLLKSP 3 Consider the environmental, social and economic impacts of decisions.

Students understand the interrelated nature of their actions and regularly make decisions that positively impact and/or mitigate negative impact on other people, organization, and the environment. They are aware of and utilize new technologies, understandings, procedures, materials, and regulations affecting the nature of their work as it relates to the impact on the social condition, the environment and the profitability of the organization.

CRLLKSP 4 Demonstrate creativity and innovation.

Students regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks or problems, and they discern which ideas and suggestions will add greatest value. They seek new methods, practices, and ideas from a variety of sources and seek to apply those ideas to their own workplace. They take action on their ideas and understand how to bring innovation to an organization.

CRLLKSP 5 Utilize critical thinking to make sense of problems and persevere in solving them.

Students readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem; they thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through

to ensure the problem is solved, whether through their own actions or the actions of others.

CRLLKSP 6 Model integrity, ethical leadership and effective management.

Students consistently act in ways that align personal and community-held ideals and principles while employing strategies to positively influence others in the workplace. They have a clear understanding of integrity and act on this understanding in every decision. They use a variety of means to positively impact the directions and actions of a team or organization, and they apply insights into human behavior to change others' action, attitudes and/or beliefs. They recognize the near-term and long-term effects that management's actions and attitudes can have on productivity, morals and organizational culture.

CRLLKSP 7 Plan education and career paths aligned to personal goals. Students take personal ownership of their own education and career goals, and they regularly act on a plan to attain these goals. They understand their own career interests, preferences, goals, and requirements. They have perspective regarding the pathways available to them and the time, effort, experience and other requirements to pursue each, including a path of entrepreneurship. They recognize the value of each step in the education and experiential process, and they recognize that nearly all career paths require ongoing education and experience. They seek counselors, mentors, and other experts to assist in the planning and execution of career and personal goals.

CRLLKSP 8 Use technology to enhance productivity, increase collaboration and communicate effectively.

Students find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.

CRLLKSP 9 Work productively in teams while using cultural/global competence.

Students positively contribute to every team, whether formal or informal. They apply an awareness of cultural difference to avoid barriers to productive and positive interaction. They find ways to increase the engagement and contribution of all team members. They plan and facilitate effective team meetings.

Career Readiness, Life Literacies, and Key Skills

- 9.4.5.CI.1: Use appropriate communication technologies to collaborate with individuals with diverse perspectives about a local and/or global climate change issue and deliberate about possible solutions.
- 9.4.5.CI.2: Investigate a persistent local or global issue, such as climate change, and collaborate with individuals with diverse perspectives to improve upon current actions designed to address the issue.
- 9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process.
- 9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
- 9.4.5.IML.2: Create a visual representation to organize information about a problem or issue.

Computer Science and Design Thinking

8.1.5.DA.1: Collect, organize, and display data in order to highlight relationships or support a claim.

8.1.5.DA.3: Organize and present collected data visually to communicate insights gained from different views of the data. 8.1.5.DA.4: Organize and present climate change data visually to highlight relationships or support a claim. 8.1.5.DA.5: Propose cause and effect relationships, predict outcomes, or communicate ideas using data. 8.2.5.ED.2: Collaborate with peers to collect information, brainstorm to solve a problem, and evaluate all possible solutions to provide the best results with supporting sketches or models. 8.2.5.ED.3: Follow step by step directions to assemble a product or solve a problem, using appropriate tools to accomplish the task. 8.2.5.ED.4: Explain factors that influence the development and function of products and systems (e.g., resources, criteria, desired features, constraints). 8.2.5.ED.5: Describe how specifications and limitations impact the engineering design process. 8.2.5.ED.6: Evaluate and test alternative solutions to a problem using the constraints and tradeoffs identified in the design process. 8.2.5.NT.1: Troubleshoot a product that has stopped working and brainstorm ideas to correct the problem. 8.2.5.ETW.3: Explain why human-designed systems, products, and environments need to be constantly monitored, maintained, and improved. 8.2.5.ETW.4: Explain the impact that resources, such as energy and materials used to develop technology, have on the environment. 8.2.5.ETW.5: Identify the impact of a specific technology on the environment and determine what can be done to increase positive effects and to reduce any negative effects, such as climate change. Science 3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials. time, or cost. 3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 3-5-ETS1-3. Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 5-ESS2-2 Describe and graph the amounts of salt water and fresh water in various reservoirs to provide evidence about the distribution of water on 5-ESS3-1: Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources, environment [, caused the rise in global temperatures] and address climate change issues. Enduring Information can be protected using various security measures (i.e., Understandings: physical and digital). Distinguishing between public and private information is important for safe and secure online interactions. What is an Acceptable Use Policy (AUP)? **Essential Questions:** Who, what, where, and when are AUPs located, read, and signed? What are in-school, and real world, examples of consequences if one breaks a rule on an AUP? How can one remain safe online?

Critical Vocabulary	State/ Federal Mandates, Unlawful, Malicious, Agreement, Privacy, Educational Purposes, Copyrighted Material
All Students Will Know and Be Able To	 Review and evaluate the Acceptable Use Policy (AUP) of Montague Township School List, identify, and apply safe online behaviors
Evidence of Student	Learning
Formative Performance Task:	 AUP review (school and business examples) Online Safety Behavior Matching
Summative Performance Task:	 Montague Township School AUP review and quiz Online Safety Contract
Formal Evidence of Learning & Progress:	 Rubrics Written Responses Presentations Completed Assessments
Informal Evidence of Learning & Progress:	 Teacher Observations Turn and Talk Student Journals Fist to Five
Learning Plan	
Required Activities:	 Montague Township School AUP Close Read and Review Online Safety Behavior Scenario Evaluation Online Safety Contract Creation
Required Resources:	Montague Township School AUP (print and digital) Common Sense Education Digital Passport: Share Jumper Game
Suggested Activities:	 AUP Examples Review and Evaluation Small Group Online Safety Brainstorm
Suggested Resources:	AUP Examples (school and business use)
Strategies for Differentiation:	Differentiation for Support (ELL, Special Education, Students at Risk, Students with 504s) Peer mentoring on problems Differentiated teacher feedback on assignments Modeling out problems on whiteboard Visual aids as we project problems on whiteboard Study guides Tiered assignments Scaffolding of materials and assignments Re-teaching and review Guided note taking Exemplars of varied performance levels Multi-media approach to accommodating various learning styles
	Differentiation for Enrichment Supplemental reading material for independent study Flexible grouping

	Tiered assignments Topic selection by interest Enhanced expectations for independent study Elevated questioning techniques using Webb's Depth of Knowledge matrix
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	Knowledge matrix
Unit 2: Keyboarding- Effecti skills as needed in the	ve professionals demonstrate appropriate digital literacy eir role.
Timeframe	2 weeks
Subject/Topic	Business Applications
Desired Results	
Content Area NJSLS:	Career Readiness, Life Literacies, and Key Skills Practices CRLLKSP 1 Act as a responsible and contributing community members and employee. Students understand the obligations and responsibilities of being a member of a community, and they demonstrate this understanding every day through their interactions with others. They are conscientious of the impacts of their decisions on others and the environment around them. They think about the near-term and long-term consequences of their actions and seek to act in ways that contribute to the betterment of their teams, families, community and workplace. They are reliable and consistent in going beyond the minimum expectation and in participating in activities that serve the greater good. CRLLKSP 2 Attend to financial well-being. Students take regular action to contribute to their personal financial well-being, understanding that personal financial security provides the peace of mind required to contribute more fully to their own career success. CRLLKSP 3 Consider the environmental, social and economic impacts of decisions. Students understand the interrelated nature of their actions and regularly make decisions that positively impact and/or mitigate negative impact on other people, organization, and the environment. They are aware of and utilize new technologies, understandings, procedures, materials, and regulations affecting the nature of their work as it relates to the impact on the social condition, the environment and the profitability of the organization. CRLLKSP 4 Demonstrate creativity and innovation. Students regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks or problems, and they discern which ideas and suggestions will add greatest value. They seek new methods, practices, and ideas from a variety of sources and seek to apply those ideas to their own

persevere in solving them.
Students readily recognize problems in the workplace, understand the

nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem; they thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others.

CRLLKSP 6 Model integrity, ethical leadership and effective management.

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CRLLKSP 7 Plan education and career paths aligned to personal goals. Students take personal ownership of their own education and career goals, and they regularly act on a plan to attain these goals. They understand their own career interests, preferences, goals, and requirements. They have perspective regarding the pathways available to them and the time, effort, experience and other requirements to pursue each, including a path of entrepreneurship. They recognize the value of each step in the education and experiential process, and they recognize that nearly all career paths require ongoing education and experience. They seek counselors, mentors, and other experts to assist in the planning and execution of career and personal goals.

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Students find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.

CRLLKSP 9 Work productively in teams while using cultural/global competence.

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Career Readiness, Life Literacies, and Key Skills

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- 9.4.5.CI.2: Investigate a persistent local or global issue, such as climate change, and collaborate with individuals with diverse perspectives to improve upon current actions designed to address the issue.
- 9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process.
- 9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
- 9.4.5.IML.2: Create a visual representation to organize information about a

problem or issue. Computer Science and Design Thinking 8.1.5.DA.1: Collect, organize, and display data in order to highlight relationships or support a claim. 8.1.5.DA.3: Organize and present collected data visually to communicate insights gained from different views of the data. 8.1.5.DA.4: Organize and present climate change data visually to highlight relationships or support a claim. 8.1.5.DA.5: Propose cause and effect relationships, predict outcomes, or communicate ideas using data. 8.2.5.ED.2: Collaborate with peers to collect information, brainstorm to solve a problem, and evaluate all possible solutions to provide the best results with supporting sketches or models. 8.2.5.ED.3: Follow step by step directions to assemble a product or solve a problem, using appropriate tools to accomplish the task. 8.2.5.ED.4: Explain factors that influence the development and function of products and systems (e.g., resources, criteria, desired features, constraints). 8.2.5.ED.5: Describe how specifications and limitations impact the engineering design process. 8.2.5.ED.6: Evaluate and test alternative solutions to a problem using the constraints and tradeoffs identified in the design process. 8.2.5.NT.1: Troubleshoot a product that has stopped working and brainstorm ideas to correct the problem. 8.2.5.ETW.3: Explain why human-designed systems, products, and environments need to be constantly monitored, maintained, and improved. 8.2.5.ETW.4: Explain the impact that resources, such as energy and materials used to develop technology, have on the environment. 8.2.5.ETW.5: Identify the impact of a specific technology on the environment and determine what can be done to increase positive effects and to reduce any negative effects, such as climate change. Science 3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. 3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 3-5-ETS1-3. Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 5-ESS2-2 Describe and graph the amounts of salt water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth. 5-ESS3-1: Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources, environment [, caused the rise in global temperatures] and address climate change issues. Enduring Correct keyboarding technique will increase efficiency. Understandings: Touch-typing training improves any individual's typing speed and accuracy. Why is proper keyboarding technique important? **Essential Ouestions:** How will effective keyboarding skills improve productivity on the computer?

Critical Vocabulary	Keys, Monitor, Mouse pad, Home row, CPU, Hard drive, Keyboard
All Students Will Know and Be Able To	 Demonstrate keyboarding speed and accuracy on a computing device. Demonstrate proper keyboarding technique when keying letters, numbers, and symbols at a rate of 25-30 words per minute. Collaborate in small groups to create and edit online documents in real time (e.g. multiple users editing one document in a shared online space.) Identify and use appropriate file sharing strategies (e.g., copy and paste, links, e-mail attachments). Produce documents according to industry standards (e.g., citation styles, agendas, financial statements, resumes). Identify and use tabs in a word processing document (i.e., left, right, center, decimal). Create and upload a screenshot
Evidence of Student	Learning
Formative Performance Task:	 Anecdotal observation, monitoring, and adjustment of keyboarding posture. Touch typing and keyboarding technique data collection sheets.
Summative Performance Task:	Technique Evaluations (1 or more per unit)TDA Paragraph
Formal Evidence of Learning & Progress:	 Rubrics Written Responses Presentations Completed Assessments
Informal Evidence of Learning & Progress:	Teacher ObservationsStudent Feedback
Learning Plan	
Required Activities:	 Research an article on how touch-typing improves English skills. Complete a Text Dependent Analysis (TDA) paragraph on findings. Typing Test (WPM)
Required Resources:	<u>Typing.com</u> or <u>NitroType</u>
Suggested Activities:	 Keyboarding Drills Touch-typing Tips: Type without looking at the keys Curve fingers over the home row Use the bumps on the f & j keys to find the home row without looking Reach keys with proper finger Both thumbs on the space bar Space with one thumb only Key with a quick, down and in motion Key with a steady, rhythmic pace Return hands to the home row typing letters on the top or bottom row and after striking the Enter key

Suggested Resources:	• Typingclub.com
Strategies for Differentiation:	Differentiation for Support (ELL, Special Education, Students at Risk, Students with 504s) Peer mentoring on problems Differentiated teacher feedback on assignments Modeling out problems on whiteboard Visual aids as we project problems on whiteboard Study guides Tiered assignments Scaffolding of materials and assignments Re-teaching and review Guided note taking Exemplars of varied performance levels Multi-media approach to accommodating various learning styles
	Differentiation for Enrichment Supplemental reading material for independent study Flexible grouping Tiered assignments Topic selection by interest Enhanced expectations for independent study Elevated questioning techniques using Webb's Depth of Knowledge matrix

Unit 3: Google DOCs- Effective Business professionals demonstrate basic skills using Google Docs, as needed in their role.	
Timeframe	2 weeks
Subject/Topic	Business Applications
Desired Results	
Content Area NJSLS:	Career Readiness, Life Literacies, and Key Skills Practices CRLLKSP 1 Act as a responsible and contributing community members and employee. Students understand the obligations and responsibilities of being a member of a community, and they demonstrate this understanding every day through their interactions with others. They are conscientious of the impacts of their decisions on others and the environment around them. They think about the near-term and long-term consequences of their actions and seek to act in ways that contribute to the betterment of their teams, families, community and workplace. They are reliable and consistent in going beyond the minimum expectation and in participating in activities that serve the greater good. CRLLKSP 2 Attend to financial well-being. Students take regular action to contribute to their personal financial well-being, understanding that personal financial security provides the peace of mind required to contribute more fully to their own career success.

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Computer Science and Design Thinking

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- 8.2.5.ETW.4: Explain the impact that resources, such as energy and materials used to develop technology, have on the environment.
- 8.2.5.ETW.5: Identify the impact of a specific technology on the environment and determine what can be done to increase positive effects and to reduce any negative effects, such as climate change.

Science

3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials,

	time, or cost. 3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 3-5-ETS1-3. Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 5-ESS2-2 Describe and graph the amounts of salt water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth. 5-ESS3-1: Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources, environment [, caused the rise in global temperatures] and address climate change issues.		
Enduring Understandings:	 Word processing software programs are used for creating and editing text documents. Google Docs is an online, cloud-based word processing program used for creating, editing, and styling text documents. 		
Essential Questions:	 How do I use Google Doc's formatting tools to style selected text, such as font styles, sizes, color, and alignment? What are keyboard shortcuts and how can they be used to increase productivity on the computer? 		
Critical Vocabulary	Landscape, Portrait, Print Preview, Clipboard, Copy, Cut, Paste, Spell Check, Grammar check, Thesaurus, Font size, Formatting, Alignment, Bullet, Indent, Line spacing, Margins, Vertical alignment		
All Students Will Know and Be Able To	 Create a word processing document (e.g., business letter, report, and table). Apply formatting features: fonts, paragraph styles, alignment, bullets/numbering, and line spacing. Insert and move text and objects (e.g., images, links, headers, and page numbers). Set permissions for sharing a document. Use the research tool from within a document. Download and/or print a document. 		
Evidence of Student	Evidence of Student Learning		
Formative Performance Task:	 Create, save, and revise Google Docs, applying formatting and layout changes: Font styles, sizes, and colors Centering text Tabs Bold Italics Underline Margins Use keyboard shortcuts to increase productivity: Ctrl + / open list of shortcuts CTRL + S to save CTRL + P to print CTRL + C to copy CTRL + V to paste CTRL + A select all CTRL + Z to undo CTRL + B, I, U Home & End keys CTRL + Home & CTRL + End CTRL + Backspace 		
Summative Performance Task:	Teacher-created assignments and assessments (Google Doc assignment TBD)		
Formal Evidence of Learning & Progress:	 Completed Activities Completed Google Doc with proper formatting 		

Informal Evidence of Learning & Progress:	 Teacher Observations Student Feedback Participate in class discussions, using correct terminology related to word processing, computers, and Google Docs. 	
Learning Plan		
Required Activities:	Creation of Google Doc utilizing various shortcuts, tools, and formatting settings.	
Required Resources:	 Teacher-created materials List of Google Docs keyboard shortcuts: In Google Docs, press CTRL + / to view and print the list of keyboard shortcuts 	
Suggested Activities:	 Google Doc Scavenger Hunt Participate in class discussions, using correct terminology related to word processing, computers, and Google Docs. 	
Suggested Resources:	Google Doc Scavenger Hunt	
Strategies for Differentiation:	for Differentiation for Support (ELL, Special Education, Students at Risk,	
	Differentiation for Enrichment Supplemental reading material for independent study Flexible grouping Tiered assignments Topic selection by interest Enhanced expectations for independent study Elevated questioning techniques using Webb's Depth of Knowledge matrix	

Unit 4: Google Slides- Effective Business professionals demonstrate basic skills using Google Slides, as needed in their role.	
Timeframe	2 weeks
Subject/Topic	Business Applications
Desired Results	

Content Area NJSLS:

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Students understand the interrelated nature of their actions and regularly make decisions that positively impact and/or mitigate negative impact on other people, organization, and the environment. They are aware of and utilize new technologies, understandings, procedures, materials, and regulations affecting the nature of their work as it relates to the impact on the social condition, the environment and the profitability of the organization.

CRLLKSP 4 Demonstrate creativity and innovation.

Students regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks or problems, and they discern which ideas and suggestions will add greatest value. They seek new methods, practices, and ideas from a variety of sources and seek to apply those ideas to their own workplace. They take action on their ideas and understand how to bring innovation to an organization.

CRLLKSP 5 Utilize critical thinking to make sense of problems and persevere in solving them.

Students readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem; they thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others.

CRLLKSP 6 Model integrity, ethical leadership and effective management.

Students consistently act in ways that align personal and community-held ideals and principles while employing strategies to positively influence others in the workplace. They have a clear understanding of integrity and act on this understanding in every decision. They use a variety of means to positively impact the directions and actions of a team or organization, and they apply insights into human behavior to change others' action, attitudes and/or beliefs. They recognize the near-term and long-term effects that management's actions and attitudes can have on productivity, morals and

organizational culture.

CRLLKSP 7 Plan education and career paths aligned to personal goals.

Students take personal ownership of their own education and career goals, and they regularly act on a plan to attain these goals. They understand their own career interests, preferences, goals, and requirements. They have perspective regarding the pathways available to them and the time, effort, experience and other requirements to pursue each, including a path of entrepreneurship. They recognize the value of each step in the education and experiential process, and they recognize that nearly all career paths require ongoing education and experience. They seek counselors, mentors, and other experts to assist in the planning and execution of career and personal goals.

CRLLKSP 8 Use technology to enhance productivity, increase collaboration and communicate effectively.

Students find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.

CRLLKSP 9 Work productively in teams while using cultural/global competence.

Students positively contribute to every team, whether formal or informal. They apply an awareness of cultural difference to avoid barriers to productive and positive interaction. They find ways to increase the engagement and contribution of all team members. They plan and facilitate effective team meetings.

Career Readiness, Life Literacies, and Key Skills

- 9.4.5.CI.1: Use appropriate communication technologies to collaborate with individuals with diverse perspectives about a local and/or global climate change issue and deliberate about possible solutions.
- 9.4.5.CI.2: Investigate a persistent local or global issue, such as climate change, and collaborate with individuals with diverse perspectives to improve upon current actions designed to address the issue.
- 9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process.
- 9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
- 9.4.5.IML.2: Create a visual representation to organize information about a problem or issue.

Computer Science and Design Thinking

- 8.1.5.DA.1: Collect, organize, and display data in order to highlight relationships or support a claim.
- 8.1.5.DA.3: Organize and present collected data visually to communicate insights gained from different views of the data.
- 8.1.5.DA.4: Organize and present climate change data visually to highlight relationships or support a claim.
- 8.1.5.DA.5: Propose cause and effect relationships, predict outcomes, or communicate ideas using data.
- 8.2.5.ED.2: Collaborate with peers to collect information, brainstorm to solve a problem, and evaluate all possible solutions to provide the best results with supporting sketches or models.
- 8.2.5.ED.3: Follow step by step directions to assemble a product or solve a problem, using appropriate tools to accomplish the task.
- 8.2.5.ED.4: Explain factors that influence the development and function of

	products and systems (e.g., resources, criteria, desired features, constraints). 8.2.5.ED.5: Describe how specifications and limitations impact the engineering design process. 8.2.5.ED.6: Evaluate and test alternative solutions to a problem using the constraints and tradeoffs identified in the design process. 8.2.5.NT.1: Troubleshoot a product that has stopped working and brainstorm ideas to correct the problem. 8.2.5.ETW.3: Explain why human-designed systems, products, and environments need to be constantly monitored, maintained, and improved. 8.2.5.ETW.4: Explain the impact that resources, such as energy and materials used to develop technology, have on the environment. 8.2.5.ETW.5: Identify the impact of a specific technology on the environment and determine what can be done to increase positive effects and to reduce any negative effects, such as climate change. Science 3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. 3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 3-5-ETS1-3. Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 5-ESS2-2 Describe and graph the amounts of salt water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth. 5-ESS3-1: Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources, environment [, caused the rise in global temperatures] and address climate change issues.
Enduring Understandings:	 Engaging presentation are clear, interactive, and visually appealing Responsibly sourced images should be cited to be used ethically and legally.
Essential Questions:	 What makes an engaging presentation? How can we respect and follow copyright laws when using images in a presentation?
Critical Vocabulary	Citation, engaging, presentation
All Students Will Know and Be Able To	 Create a slide show. Insert and delete slides. Insert text, images, drawings, videos, tables, and shapes. Add animations to objects and transitions to slides. Format presentation settings. Download a presentation. Orally present a slide show demonstrating effective presentation skills.
Evidence of Student l	Learning
Formative Performance Task:	Questioning during classObserved student work

	Laboratory work AssignmentsEntrance and Exit slips
Summative Performance Task:	Google Slides presentation on Chosen Career
Formal Evidence of Learning & Progress:	 Completed Activities Completed Google Slide deck with proper formatting Completed presentation on chosen career
Informal Evidence of Learning & Progress:	 Teacher Observations Student Feedback Participate in class discussions, using correct terminology related to word processing, computers, and Google Slides.
Learning Plan	
Required Activities:	Career ProjectGoogle Slides presentation
Required Resources:	Google SlidesCareerzone
Suggested Activities:	<u>CareerZone Worksheet</u>
Suggested Resources:	• My Plan
Strategies for Differentiation:	Differentiation for Support (ELL, Special Education, Students at Risk, Students with 504s) Peer mentoring on problems Differentiated teacher feedback on assignments Modeling out problems on whiteboard Visual aids as we project problems on whiteboard Study guides Tiered assignments Scaffolding of materials and assignments Re-teaching and review Guided note taking Exemplars of varied performance levels Multi-media approach to accommodating various learning styles Differentiation for Enrichment
	Differentiation for Enrichment Supplemental reading material for independent study Flexible grouping Tiered assignments Topic selection by interest Enhanced expectations for independent study Elevated questioning techniques using Webb's Depth of Knowledge matrix

Unit 5:

Google Sheets: Effective Business professionals demonstrate basic skills using Google Sheets, as needed in their role.

Timeframe	2 weeks
Subject/Topic	Business Applications
Desired Results	
Content Area NJSLS:	Career Readiness, Life Literacies, and Key Skills Practices CRLLKSP1 Act as a responsible and contributing community member and employee. Students understand the obligations and responsibilities of being a membe of a community, and they demonstrate this understanding every day through their interactions with others. They are conscientious of the impacts of their decisions on others and the environment around them. They think about the near-term and long-term consequences of their actions and seek to act in ways that contribute to the betterment of their teams, families, community and workplace. They are reliable and consistent in going beyond the minimum expectation and in participating in activities that serve the greater good. CRLLKSP 2 Attend to financial well-being. Students take regular action to contribute to their personal financial well-being, understanding that personal financial security provides the peace of mind required to contribute more fully to their own career success. CRLLKSP 3 Consider the environmental, social and economic impacts of decisions. Students understand the interrelated nature of their actions and regularly make decisions that positively impact and/or mitigate negative impact on other people, organization, and the environment. They are aware of and utilize new technologies, understandings, procedures, materials, and regulations affecting the nature of their work as it relates to the impact on the social condition, the environment and the profitability of the organization. CRLLKSP 4 Demonstrate creativity and innovation. Students regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and improve their organization.

Students regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks or problems, and they discern which ideas and suggestions will add greatest value. They seek new methods, practices, and ideas from a variety of sources and seek to apply those ideas to their own workplace. They take action on their ideas and understand how to bring innovation to an organization.

CRLLKSP 5 Utilize critical thinking to make sense of problems and persevere in solving them.

Students readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem; they thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others.

CRLLKSP 6 Model integrity, ethical leadership and effective management.

Students consistently act in ways that align personal and community-held ideals and principles while employing strategies to positively influence

others in the workplace. They have a clear understanding of integrity and act on this understanding in every decision. They use a variety of means to positively impact the directions and actions of a team or organization, and they apply insights into human behavior to change others' action, attitudes and/or beliefs. They recognize the near-term and long-term effects that management's actions and attitudes can have on productivity, morals and organizational culture.

CRLLKSP 7 Plan education and career paths aligned to personal goals. Students take personal ownership of their own education and career goals, and they regularly act on a plan to attain these goals. They understand their own career interests, preferences, goals, and requirements. They have perspective regarding the pathways available to them and the time, effort, experience and other requirements to pursue each, including a path of entrepreneurship. They recognize the value of each step in the education and experiential process, and they recognize that nearly all career paths require ongoing education and experience. They seek counselors, mentors, and other experts to assist in the planning and execution of career and personal goals.

CRLLKSP 8 Use technology to enhance productivity, increase collaboration and communicate effectively.

Students find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.

CRLLKSP 9 Work productively in teams while using cultural/global competence.

Students positively contribute to every team, whether formal or informal. They apply an awareness of cultural difference to avoid barriers to productive and positive interaction. They find ways to increase the engagement and contribution of all team members. They plan and facilitate effective team meetings.

Career Readiness, Life Literacies, and Key Skills

- 9.4.5.CI.1: Use appropriate communication technologies to collaborate with individuals with diverse perspectives about a local and/or global climate change issue and deliberate about possible solutions.
- 9.4.5.CI.2: Investigate a persistent local or global issue, such as climate change, and collaborate with individuals with diverse perspectives to improve upon current actions designed to address the issue.
- 9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process.
- 9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
- 9.4.5.IML.2: Create a visual representation to organize information about a problem or issue.

Computer Science and Design Thinking

- 8.1.5.DA.1: Collect, organize, and display data in order to highlight relationships or support a claim.
- 8.1.5.DA.3: Organize and present collected data visually to communicate insights gained from different views of the data.
- 8.1.5.DA.4: Organize and present climate change data visually to highlight relationships or support a claim.
- 8.1.5.DA.5: Propose cause and effect relationships, predict outcomes, or communicate ideas using data.

	 8.2.5.ED.2: Collaborate with peers to collect information, brainstorm to solve a problem, and evaluate all possible solutions to provide the best results with supporting sketches or models. 8.2.5.ED.3: Follow step by step directions to assemble a product or solve a problem, using appropriate tools to accomplish the task. 8.2.5.ED.4: Explain factors that influence the development and function of products and systems (e.g., resources, criteria, desired features, constraints). 8.2.5.ED.5: Describe how specifications and limitations impact the engineering design process. 8.2.5.ED.6: Evaluate and test alternative solutions to a problem using the constraints and tradeoffs identified in the design process. 8.2.5.NT.1: Troubleshoot a product that has stopped working and brainstorm ideas to correct the problem. 8.2.5.ETW.3: Explain why human-designed systems, products, and environments need to be constantly monitored, maintained, and improved. 8.2.5.ETW.4: Explain the impact that resources, such as energy and materials used to develop technology, have on the environment. 8.2.5.ETW.5: Identify the impact of a specific technology on the environment and determine what can be done to increase positive effects and to reduce any negative effects, such as climate change. Science 3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. 3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 3-5-ETS1-3. Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. 5-ESS2-2 Describe and graph the amounts of salt water and fresh water in various reservoirs to provide evidence about the distribution of w
Enduring Understandings:	 Spreadsheet software programs are used for computation, organization, analysis, and storage of data in tabular form. Google Sheets is an online, cloud-based web application used for computing, organizing, evaluating, and storing data within a spreadsheet.
Essential Questions:	 How are spreadsheets used effectively in business as well as your personal life? How can I enter data into Sheets and use the Sheets ribbon to create a useful, efficient spreadsheet? What are representations of different formulas? What are effective ways to apply formatting to cells and data? How are spreadsheets used in business and personal life?
Critical Vocabulary	Cell, formula, function, data
All Students Will	Create a spreadsheet.

Know and Be Able To	 Enter text, dates, and numbers into rows and columns. Merge cells vertically and horizontally. Enter and edit formulas in a cell and/or use the formula bar. Use basic functions, (e.g., AVERAGE, SUM, COUNT, MIN, and MAX). Format cells. Differentiate the different types of data used in Sheets, (e.g., currency, date, time, numbers, text, symbols, etc. Sort and manage data. Download and/or print a spreadsheet. Create a chart from data in a spreadsheet.
Evidence of Student	Learning
Formative Performance Task:	 Questioning during class Observed student work Laboratory work Assignments Entrance and Exit slips
Summative Performance Task:	Create, manipulate, and organize data in a Google Sheet spreadsheet
Formal Evidence of Learning & Progress:	 Completed Activities Completed Google Sheet spreadsheet with formulas and functions Completed chart and/or table created within Sheet
Informal Evidence of Learning & Progress:	 Teacher Observations Student Feedback Participate in class discussions, using correct terminology related to data processing, computers, and Google Sheets.
Learning Plan	
Required Activities:	Creation, organization, and manipulation of data within Google Sheets
Required Resources:	Google Sheets
Suggested Activities:	 Check your math answers using formulas Create a schedule/ budget Play Games in Sheets (Battleship)
Suggested Resources:	How to play Battleship in Sheets: https://youtu.be/Q4Cd0yL6vVI
Strategies for Differentiation:	Differentiation for Support (ELL, Special Education, Students at Risk, Students with 504s) Peer mentoring on problems Differentiated teacher feedback on assignments Modeling out problems on whiteboard Visual aids as we project problems on whiteboard Study guides Tiered assignments Scaffolding of materials and assignments Re-teaching and review Guided note taking Exemplars of varied performance levels

Multi-media approach to accommodating various learning styles
Differentiation for Enrichment
Supplemental reading material for independent study Flexible grouping Tiered assignments Topic selection by interest Enhanced expectations for independent study Elevated questioning techniques using Webb's Depth of Knowledge matrix

Unit 6: Google Sites- Effective Business professionals demonstrate basic skills using Google Sites, as needed in their role.		
Timeframe	2 weeks	
Subject/Topic	Business Applications	
Desired Results		
Content Area NJSLS:	Career Readiness, Life Literacies, and Key Skills Practices CRLLKSP 1 Act as a responsible and contributing community members and employee. Students understand the obligations and responsibilities of being a member of a community, and they demonstrate this understanding every day through their interactions with others. They are conscientious of the impacts of their decisions on others and the environment around them. They think about the near-term and long-term consequences of their actions and seek to act in ways that contribute to the betterment of their teams, families, community and workplace. They are reliable and consistent in going beyond the minimum expectation and in participating in activities that serve the greater good. CRLLKSP 2 Attend to financial well-being. Students take regular action to contribute to their personal financial well-being, understanding that personal financial security provides the peace of mind required to contribute more fully to their own career success. CRLLKSP 3 Consider the environmental, social and economic impacts of decisions. Students understand the interrelated nature of their actions and regularly make decisions that positively impact and/or mitigate negative impact on other people, organization, and the environment. They are aware of and utilize new technologies, understandings, procedures, materials, and regulations affecting the nature of their work as it relates to the impact on the social condition, the environment and the profitability of the organization. CRLLKSP 4 Demonstrate creativity and innovation. Students regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks or problems, and they discern	

which ideas and suggestions will add greatest value. They seek new methods, practices, and ideas from a variety of sources and seek to apply those ideas to their own workplace. They take action on their ideas and understand how to bring innovation to an organization.

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CRLLKSP 7 Plan education and career paths aligned to personal goals. Students take personal ownership of their own education and career goals, and they regularly act on a plan to attain these goals. They understand their own career interests, preferences, goals, and requirements. They have perspective regarding the pathways available to them and the time, effort, experience and other requirements to pursue each, including a path of entrepreneurship. They recognize the value of each step in the education and experiential process, and they recognize that nearly all career paths require ongoing education and experience. They seek counselors, mentors, and other experts to assist in the planning and execution of career and personal goals.

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9.4.5.CI.2: Investigate a persistent local or global issue, such as climate change, and collaborate with individuals with diverse perspectives to

- improve upon current actions designed to address the issue.
- 9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process.
- 9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
- 9.4.5.IML.2: Create a visual representation to organize information about a problem or issue.

Computer Science and Design Thinking

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- 8.2.5.ETW.4: Explain the impact that resources, such as energy and materials used to develop technology, have on the environment.
- 8.2.5.ETW.5: Identify the impact of a specific technology on the environment and determine what can be done to increase positive effects and to reduce any negative effects, such as climate change.

Science

- 3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.
- 3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
- 3-5-ETS1-3. Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.
- 5-ESS2-2 Describe and graph the amounts of salt water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.
- 5-ESS3-1: Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources, environment [, caused the rise in global temperatures] and address climate change issues.

Enduring Understandings:	 Digital portfolios are an effective tool for demonstrating my learning progress. A website can be used by businesses to grow their brand and individuals use it to bring their personality to their own safe space online 		
Essential Questions:	 How can I use a digital portfolio to showcase my learning? What are the best examples I can use in my portfolio to show my growth and progress? What are the important components of a website? 		
Critical Vocabulary	Home page, header, link, hover state, breadcrumb		
All Students Will Know and Be Able To	 Create a content page within a Web site. Insert images, links, and Google Drive files. Embed items on the Google site (e.g., maps, forms, calendars). 		
Evidence of Student	Evidence of Student Learning		
Formative Performance Task:	Digital Portfolio Planning Guide		
Summative Performance Task:	Create a Digital Portfolio using Google Sites		
Formal Evidence of Learning & Progress:	 Completed Activities Completed Google Sites digital portfolio with linked artifacts and uploaded photos 		
Informal Evidence of Learning & Progress:	 Teacher Observations Student Feedback Participate in class discussions, using correct terminology related to website creation, portfolios, and Google Sites. 		
Learning Plan			
Required Activities:	Create a digital portfolio using Google Sites		
Required Resources:	Google Sites		
Suggested Activities:	Portfolio Reflection and Planning Guide		
Suggested Resources:	WeeblyFlip		
Strategies for Differentiation:	Differentiation for Support (ELL, Special Education, Students at Risk, Students with 504s) Peer mentoring on problems Differentiated teacher feedback on assignments Modeling out problems on whiteboard Visual aids as we project problems on whiteboard Study guides Tiered assignments Scaffolding of materials and assignments Re-teaching and review Guided note taking		

Exemplars of varied performance levels
Multi-media approach to accommodating various learning
styles

Differentiation for Enrichment
Supplemental reading material for independent study
Flexible grouping
Tiered assignments
Topic selection by interest
Enhanced expectations for independent study
Elevated questioning techniques using Webb's Depth of
Knowledge matrix

Last updated 8/3/23

<u>Appendix</u>

Standards in Action

Montague Township School District believes in offering an interdisciplinary approach to teaching and learning because students are able to make connections and relationships by bringing together separate content disciplines, skills and knowledge around common themes, issues, or problems. The NJ Department of Education mandates the following be identified as areas of study beneficial to integration into all grade levels and content areas.

Please click the hyperlink for further information on each area:

Career Readiness, Life Literacies, and Key Skills

Climate Change Education

Contributions of Disabled and LGBT Individuals

Holocaust Education

Amistad Commission

Social and Emotional Learning

Diversity, Equity and Inclusion

Asian American Pacific Islander

Types of Assessments

Students will be assessed across the units and year in a variety of ways. The link below indicates resources for developing assessments and general examples of assessments that teachers may utilize across all of the content areas.

Formative, Summative, Alternative, and Benchmark Assessments

Accommodations & Modifications for Special Education, ELL, G&T, 504 Plans and At Risk:

Modifications and Accommodations