Kingsway Regional School District

Committed to Excellence

Course Name: Business and Computer Science	
Prerequisite(s): None	**Grade Level(s): 7**
Department: Business/Technology	**Credits: NA**
BOE Adoption Date: October 2016	**Revision Dates: October 2021**

Course Description and Outcomes

Technology is an essential element for success in today's electronic global society. Therefore, the elective course, Business and Computer Science, provides students with the opportunity to obtain and refine skills utilizing the many basic and complex features of software that enables students to analyze, problem solve, and communicate effectively. By the end of the course, Business and Computer Science, students will (1) recognize the ethical and societal impacts of computer usage (2) utilize Microsoft Word to create flyers with text and graphic images, (3) identify elements of Microsoft Excel spreadsheets, (4) create, format, and edit Microsoft Excel spreadsheets, (5) design and create multimedia shows, (7) creating a personal web page using HTML, and (8) examine the necessary steps, government and private internet sites that allow students the necessary information when finding careers in the 21st century.

Proficiencies and Pacing Guide:

Course Title: Business and Computer Science

Unit Title:	Months & Number of Weeks	Relevant Content Standards	Learning Goals:	Learning Objectives (Identify the DOK Level):
Unit 1: **Understanding Computers & Digital Citizenship (Microsoft Office)**	September-October February-March 6 weeks	**8.2.8.EC.1** **8.1.8.DA.1** **8.1.8.DA.3** **8.1.8.DA.4**	1. Students will know how to create documents that will be able to communicate and share information utilized by the educational system and workforce with an engaging and interactive program. 2. Students will be able to create spreadsheets, sort data, charts and graphs and create formulas and to be able to modify and copy various formulas in a spreadsheet 3. Students will be able to create databases to track, organize, and analyze data. 4. Students will create meaningful reports and be able to share valuable information. 5. Students will be able to identify and utilize various components of the MS Power Point in order to create a visually appealing presentation.	1. Use the word processing software to produce, edit, and publish industry appropriate documents. (DOK 2) 2. Create, modify, format, and edit documents to adhere to specified standards and requirements. (DOK 4) 3. Create formulas, modify, format, and edit specified standards and requirements. (DOK 4) 4. Create spreadsheets, Pie Charts, Column Charts, Line Charts, and Bar Charts that are enhanced by shading, shapes, and graphics. (DOK 4) 5. Create spreadsheets that utilize proper cell formatting and alignment, to create spreadsheets that will look professional in appearance and informational quality. (DOK 4) 6. Format spreadsheets and databases. (DOK 2) 7. Demonstrate presentation skills and proper public speaking techniques by creating well-organized, audience-appropriate presentation such as informative, entertaining, and instructional. (DOK 4)
Unit 2: **Intro to Computer Science**	October-November March-April 6 weeks	8.1.8.AP.1 8.1.8.AP.2 8.1.8.AP.3 8.1.8.AP.4 8.1.8.AP.5 8.1.8.AP.8	1. Students will be able to identify defined characteristics of a computer and how it is used to solve information problems. 2. Students will be able to use a structured problem solving process to	1. Identify the components to the structured problem solving process and list useful strategies for each step of the process. (DOK 1) 2. Define a computers input, output, storage, and how they process

Unit Title:	Months & Number of Weeks	Relevant Content Standards	Learning Goals:	Learning Objectives (Identify the DOK Level):
		8.1.8.AP.9	address problems and design solutions that use computing technology. 3. Students will be able to create a digital artifact that uses multiple computer languages to control the structure and style of their content, and view computer science as a tool for personal expression. 4. Students will understand that different programming languages allow them to solve different problems, and these solutions can be generalized across similar problems. 5. Students will be able to understand their role and responsibilities as both creators and consumer of digital media.	information to help solve problems. (DOK 1) 3. Classify how web pages are useful for users and how they might also serve their creators. (DOK 2). 4. Identify HTML tags that allow me to communicate both the content and structure of a website to the computer. (DOK 1) 5. Construct HTML heading tags to create pages and section titles and learn how the different headings elements are displayed by default. (DOK 2) 6. Modify style elements on a web page. (DOK 3). 7. Design, plan, document, and implement a web page using different HTML, CSS, and digital citizenship guidelines. (DOK 4)
Unit 3: **Personal Finance & Computers**	December-January May-June 8 weeks	9.1.8.A.1 9.1.8.A.6 9.1.8.A.7 9.1.8.B.1 9.1.8.B.7 9.1.8.E.1 9.1.8.E.4 8.1.8.A.4	1. Students will explore how to manage money. 2. Students will learn the meaning of various financial terms, such as: credit, deductions, and gross vs. net pay, taxes and wealth creation. 3. Students will learn how career choices can affect spending habits. 4. Students will understand the differences in salary levels based on educational status. 5. Students will be able to identify and explain the difference between credit and debit cards. 6. Students will use Excel to create budgets and other financial documents. 7. Students will be able to use math	1. Determine the difference between gross pay vs. net pay and why this happens. 2. Identify how certain education and career choices influence spending. 3. Determine the use of credit or debit. 4. Evaluate and determine when to use coupons or store discount when making a buying decision. Practicing their reasoning skills. 5. Create and identify expenses for a budget using spreadsheets 6. Determine spending practices using spreadsheets. 7. Reason the better options based on financial data in a spreadsheet.

Unit Title:	Months & Number of Weeks	Relevant Content Standards	Learning Goals:	Learning Objectives (Identify the DOK Level):
			reasoning to make proper financial decisions.	

Unit Title: 1 Understanding Computers & Digital Citizenship (Microsoft Office)	Unit Length Months/Weeks: 6 Weeks

Unit Description: Students will explore and understand the capabilities of Microsoft Office Suite. Students will investigate and understand responsible citizenship practices required for today's technological society.

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Learning Goals & (Primary Content Standards):	Learning Objectives (Identify the DOK Level):
1. Students will be able to understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.	1. I can explain the advantages and disadvantages of computer use. (DOK 1)
2. Students will know how to create documents that will be able to communicate and share information utilized by the educational system and workforce with an engaging and interactive program.	2. I can demonstrate an understanding of Social/Ethical impacts of computer usage: IM Social Networks, Privacy, Hacking, Identity Theft, and Predation. (DOK 2)
3. Students will use school and workplace themes to complete the MS Excel assignments demonstrating real life scenarios.	3. I can investigate the impact of computers on their careers. (DOK 2)
4. Students will be able to create spreadsheets, sort data, charts and graphs and create formulas and to be able to modify and copy various formulas in a spreadsheet.	4. I can use the word processing software to produce, edit, and publish industry appropriate documents. (DOK 3)
5. Students will create meaningful reports and be able to share valuable information.	5. I can create documents that utilize proper paragraph spacing, grammatical alignment and professional appearance for educational and professional use. (DOK 4)
6. Students will be able to identify and utilize various components of the MS Power Point in order to create a visually appealing presentation	6. I can use the spreadsheet software to produce, edit, and publish school and work appropriate spreadsheets. (DOK 3)
	7. I can create spreadsheets, Pie Charts, Column Charts, Line Charts, and Bar Charts that are enhanced by shading, shapes, and graphics. (DOK 4)
8.2.8.EC.1: Explain ethical issues that may arise from the use of new technologies.	8. I can use presentation software to create, edit, and publish industry appropriate files. (DOK 3)
8.1.8.DA.1: Organize and transform data collected using computational tools to make it usable for a specific purpose.	9. I can create, modify, and design templates including master slide, master title slide, master notes, and header/footer. (DOK 4)
8.1.8.DA.3: Identify the appropriate tool to access data based on its file format.	10. I can demonstrate presentation skills and proper public speaking techniques by creating well-organized, audience-appropriate presentations such as informative, entertaining, and instructional. (DOK 3)
8.1.8.DA.4: Transform data to remove errors and improve the accuracy of the data for analysis	

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Essential Questions: *(higher level questions that need to be considered/answers; are open and broad)*	Enduring Understandings: *(general/transferable ideas to other contexts)*
1. How does a computer process information? 2. What are the advantages/disadvantages of using a computer? 3. How does a computer affect your life in school? How does a computer affect your life in the workplace? 4. What does being a responsible user mean?	*Students will understanding that…* • *Using a computer in the 21st Century has various advantages and disadvantages.* • *As a responsible digital citizen, technology impacts our global society in a myriad of ways.* • *Learning to create a spreadsheet is essential in all business situations.* • *Learning how to create electronic presentations will be useful in personal and business situations.*

Secondary Assessments (Formative)	Primary Assessments (Summative)
Microsoft Word Flyer Excel Formatting Spreadsheet Public Speaking Assessment	Excel Project PowerPoint Presentation

Interdisciplinary Connections: *CORE AREA CONNECTIONS*

Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and organization, development, and style are appropriate to task, purpose, and audience.

Make strategic used of digital media and visual display of data to express information and enhance understanding of presentations.

Career Ready Practices: *Note applicable CRPs used within the unit.*

CRP4. Communicate clearly and effectively and with reason
CRP 6. Demonstrate creativity and innovation.
CRP 11. Use technology to enhance productivity.

Career Readiness, Life Literacies, & Key Skills (21ˢᵗ Century Themes & Skills): *Note applicable 2020 NJ standards 9.1, 9.2, 9.3, or 9.4 within the unit.*

9.4.8.DC.4: Explain how information shared digitally is public and can be searched, copied, and potentially seen by public audiences.
9.4.8.DC.5: Manage digital identity and practice positive online behavior to avoid inappropriate forms of self-disclosure.
9.4.8.DC.6: Analyze online information to distinguish whether it is helpful or harmful to reputation.
9.4.8.IML.3: Create a digital visualization that effectively communicates a data set using formatting techniques such as form, position, size, color, movement, and spatial grouping (e.g., 6.SP.B.4, 7.SP.B.8b).

Integration of Technology: *Note applicable 2020 standards 8.1 & 8.2 used within the unit.*

8.1.8.DA.1: Organize and transform data collected using computational tools to make it usable for a specific purpose.
8.1.8.DA.3: Identify the appropriate tool to access data based on its file format.

Course/Unit Resources:
Bureau of Labor Statistics: Outlook handbook: http://www.bls.gov/ooh/
Trailblazers (Electronic textbook)
Teacher handouts

Unit 2 Title: Intro to Computer Science	Unit Length Months/Weeks: 6 weeks

Unit Description: In this unit, students are introduced to the concepts of computing and the defined characteristics of a computer and how it is used to solve information problems. Through a series of puzzles, challenges, and real word scenarios, students are introduced to a problem solving process that they will return to repeatedly during the unit. Students then learn how computers input, output, store, and process information to help humans solve problems within the context of apps. Students will design an app that helps solve a problem of their choosing. Students then examine the role of the web and how it can be used as a medium for creative expression. Students will develop their own pages and begin to see themselves as programmers, they will analyze the impact of sharing information online and how to be more critical consumers of content. Students will also learn valuable skills such as debugging, using resources, and teamwork while creating a personal website they can publish and share.

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Learning Goals & (Primary Content Standards):	Learning Objectives (Identify the DOK Level):
1. Students will be able to identify defined characteristics of a computer and how it is used to solve information problems. 2. Students will be able to use a structured problem solving process to address problems and design solutions that use computing technology. 3. Students will be able to create a digital artifact that uses multiple computer languages to control the structure and style of their content, and view computer science as a tool for personal expression. 4. Students will understand that different programming languages allow them to solve different problems, and these solutions can be generalized across similar problems. 5. Students will be able to understand their role and responsibilities as both creators and consumer of digital media **8.1.8.AP.1**: Design and illustrate algorithms that solve complex problems using flowcharts and/or pseudocode. **8.1.8.AP.2**: Create clearly named variables that represent different data types and perform operations on their values. **8.1.8.AP.3**: Design and iteratively develop programs that combine control structures, including nested loops and compound conditionals. **8.1.8.AP.4**: Decompose problems and sub-problems into parts to facilitate the design, implementation, and review of programs.	1. I can identify the components to the structured problem solving process and list useful strategies for each step of the process. (DOK 1) 2. I can define a computers input, output, storage, and how they process information to help solve problems. (DOK 1) 3. I can classify how web pages are useful for users and how they might also serve their creators. (DOK 2). 4. I can identify HTML tags that allow me to communicate both the content and structure of a website to the computer. (DOK 1) 5. I can construct HTML heading tags to create pages and section titles and learn how the different headings elements are displayed by default. (DOK 2) 6. I can modify style elements on a web page. (DOK 3). 7. I can design, plan, document, and implement a web page using different HTML, CSS, and digital citizenship guidelines. (DOK 4)

Learning Goals & (Primary Content Standards):	Learning Objectives (Identify the DOK Level):
8.1.8.AP.5: Create procedures with parameters to organize code and make it easier to reuse. **8.1.8.AP.6**: Refine a solution that meets users' needs by incorporating feedback from team members and users. **8.1.8.AP.7**: Design programs, incorporating existing code, media, and libraries, and give attribution. **8.1.8.AP.8**: Systematically test and refine programs using a range of test cases and users. **8.1.8.AP.9**: Document programs in order to make them easier to follow, test, and debug	

Essential Questions: *(higher level questions that need to be considered/answers; are open and broad)*	Enduring Understandings: *(general/transferable ideas to other contexts)*
1. What strategies and processes can I use to become a more effective problem solver? 2. How do computers help people solve problems? 3. How can text communicate content and structure on a web page? 4. How do I safely and appropriately make use of the content published on the internet?	*Students will understanding that…* • *There is often more than one way to solve a problem, and some ways are better or more efficient than others.* • *Computers process information to turn input into output.* • *Using HTML text elements and syntax for CSS rule-sets in design and web development contribute to a successful website.* • *Explain basic security issues on the Internet and identify web applications that influence society and education.*

Secondary Assessments (Formative)	Primary Assessments (Summative)
Computer Components Assessment Mini-Project: HTML Web Page Mini-Project: Your Personal Style	Personal Webpage Project

Interdisciplinary Connections: *CORE AREA CONNECTIONS*
Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

Career Ready Practices: *Note applicable CRPs used within the unit.*
CRP 8 Utilize critical thinking to make sense of problems and persevere in solving them.

Career Readiness, Life Literacies, & Key Skills (21st Century Themes & Skills): *Note applicable 2020 NJ standards 9.1, 9.2, 9.3, or 9.4 within the unit.*
9.4.2.CT.2: Identify possible approaches and resources to execute a plan **9.4.2.CT.3**: Use a variety of types of thinking to solve problems

9.4.2.DC.1: Explain differences between ownership and sharing of information.	
9.4.2.DC.2: Explain the importance of respecting digital content of others.	
9.4.2.DC.6: Identify respectful and responsible ways to communicate in digital environments.	
Integration of Technology: *Note applicable 2020 standards 8.1 & 8.2 used within the unit.*	
8.1.8.AP.1: Design and illustrate algorithms that solve complex problems using flowcharts and/or pseudocode.	
8.1.8.AP.2: Create clearly named variables that represent different data types and perform operations on their values.	
8.1.8.AP.3: Design and iteratively develop programs that combine control structures, including nested loops and compound conditionals.	
8.1.8.AP.4: Decompose problems and sub-problems into parts to facilitate the design, implementation, and review of programs.	
8.1.8.AP.5: Create procedures with parameters to organize code and make it easier to reuse.	
8.1.8.AP.6: Refine a solution that meets users' needs by incorporating feedback from team members and users.	
8.1.8.AP.7: Design programs, incorporating existing code, media, and libraries, and give attribution.	
8.1.8.AP.8: Systematically test and refine programs using a range of test cases and users.	
8.1.8.AP.9: Document programs in order to make them easier to follow, test, and debug	
Course/Unit Resources:	
Code.org curriculum https://code.org/lesson_plans	
Teacher worksheets and activities	

Unit 3 Title: Personal Finance & Computers	Unit Length Months/Weeks: 8 weeks

Unit Description: Utilizing Microsoft Office Suite as the technological platform, students will explore various business financial skills required for the 21st Century.

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Learning Goals & (Primary Content Standards):	Learning Objectives (Identify the DOK Level):
1. Students will explore how to manage money. 2. Students will learn the meaning of various financial terms, such as: credit, deductions, and gross vs. net pay, taxes and wealth creation. 3. Students will learn how career choices can affect spending habits. 4. Students will understand the differences in salary levels based on educational status. 5. Students will be able to identify and explain the difference between credit and debit cards. 6. Students will use Excel to create budgets and other financial documents **9.1.8.A.1** Explain the meaning and purposes of taxes and tax and why fees for various benefits (e.g., medical benefits) are taken out of pay. **9.1.8.A.6** Explain how income affects spending decisions **9.1.8.A.7** Explain the purpose of the payroll deduction process, taxable income, and employee benefits. B **9.1.8.B.1** Distinguish among cash, check, credit card, and debit card. **9.1.8.B.7** Construct a budget to save for long-term, short-term, and charitable goals **9.1.8.E.1** Explain what it means to be a responsible consumer and the factors to consider when making consumer decisions **9.1.8.E.4** Prioritize personal wants and needs when making purchases.	1. I can explain what personal finance means. (DOK 2) 2. I can brainstorm what a budget is and the importance of a personal budget. (DOK 1) 3. I can list the steps of preparing a practical budget. Determine how to plan a working budget. (DOK 1) 4. I can create excel spreadsheets that show monthly income, less expenses to show how to find monthly savings. (DOK 4) 5. I can determine what would be the best way to make responsible consumer decisions. (DOK 3) 6. I can explain the differences between needs and wants. (DOK 2)

Essential Questions: *(higher level questions that need to be considered/answers; are open and broad)*	Enduring Understandings: *(general/transferable ideas to other contexts)*
1. What is a budget? 2. How is a budget useful in business or personal life? 3. How does a person create a budget? 4. How can technology assist in budget planning?	*Students will understanding that…* • *Creating a personal budget is an ongoing, lifelong skill.*

Secondary Assessments (Formative)	Primary Assessments (Summative)
Credit/Debit Quiz Banking Quiz	Budget Project Unit Assessment

Interdisciplinary Connections: *CORE AREA CONNECTIONS*
Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and organization, development, and style are appropriate to task, purpose, and audience.

Career Ready Practices: *Note applicable CRPs used within the unit.*

CRP 3 Attend to personal health and financial well-being.
CRP 8 Utilize critical thinking to make sense of problems and persevere in solving them.

Career Readiness, Life Literacies, & Key Skills (21st Century Themes & Skills): *Note applicable 2020 NJ standards 9.1, 9.2, 9.3, or 9.4 within the unit.*

9.1.8.PB.2: Explain how different circumstances can affect one's personal budget. • 9.1.8.PB.3: Explain how to create budget that aligns with financial goals.
9.1.8.PB.4: Construct a simple personal savings and spending plan based on various sources of income and different stages of life (e.g. teenager, young adult, family)
9.1.8.PB.7 Brainstorm techniques that will help decrease expenses including comparison shopping, negotiating, and day-to-day expense management.
9.1.8.FP.2: Evaluate the role of emotions, attitudes, and behavior (rational and irrational) in making financial decisions
9.1.8.FP.4: Analyze how familial and cultural values influence savings rates, spending, and other financial decisions.
9.1.8.FP.5: Determine how spending, investing, and using credit wisely contributes to financial well-being
9.1.8.FI.1: Identify the factors to consider when selecting various financial service providers.
9.1.8.FI.2: Determine the most appropriate use of various financial products and services to borrow and access money for making purchases (e.g., ATM, debit cards, credit cards, check books, online/mobile banking).
9.1.8.FI.3: Evaluate the most appropriate financial institutions to assist with meeting various personal financial needs and goals.
9.1.8.EG.1 Explain how taxes affect disposable income and the difference between net and gross income
9.1.8.CP.1 Compare prices for the same goods or services.
9.1.8.CP.2:   Analyze how spending habits affect one's ability to save.

9.1.8.CP.3:   Explain the purpose of a credit score and credit record, the factors and impact of credit scores.   **9.1.8.CDM.1:** Compare and contrast the use of credit cards and debit cards for specific purchases and the advantages and disadvantages of using each.   **9.1.8.CDM.2:** Demonstrate an understanding of the terminology associated with different types of credit (e.g., credit cards, installment loans, mortgages, lines of credit) and compare and calculate the interest rates associated with each.
Integration of Technology: *Note applicable 2020 standards 8.1 & 8.2 used within the unit.*
8.1.8.IC.1:   Compare the trade-offs associated with computing technologies that affect individual's everyday activities and career options   **8.1.8.DA.1**:   Organize and transform data collected using computational tools to make it usable for a specific purpose.
Course/Unit Resources:
Bureau of Labor Statistics: Outlook handbook: http://www.bls.gov/ooh/   Next Gen Personal Finance https://www.ngpf.org/   Teacher handouts