



Instructional Calendar and Resource Materials
Department: Career and Technical Education
Program Name: STEM
Pathway: Various CTE Pathways

COURSE NAME: Business and Computer Science (Grade 7)
PROGRAM SPECIALIST: Rod Hames & Kathy Krohnert
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STATE COURSE NO: (07.08400)

TEXT: Learning with Computers, Thomson-Southwestern (Blue Edition), By Napier, Judd, Hoggatt (2006).

Primary: This course primarily use a project driven curriculum

Supplemental: Online various sites

SOFTWARE: Microsoft Office Suite, Microtype (along with various online keyboarding tools), Microworlds, and Scratch. Many of the software programs will be Web 2.0 applications. All labs should have Netsupport – lab management software

EQUIPMENT: 34 Student Computer Workstations
1 Teacher Computer Workstation
Mounted Overhead Projector with screen
Dual Laser Printers



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AKS STRANDS	UNITS/TOPICS
1. Keyboarding 2. 21 st Century Skills 3. Computer Applications 4. Programming 5. Internet and Safety 6. Introduction to Business	Proper Keyboarding Technique Goal Setting Careers in Business and Computer Science Setting Future Plans – Career Pathways Problem Solving – STEM Programming/Coding Unit Introduction to Business Fundamentals and Leadership Word Processing: Formatting and Editing a Document Writing a Business Letter Spreadsheets and Formulas Graphing Data Desktop Publishing Design and Layout in DTP Identifying Files Types (PDF, JPG, etc.)
	Converting between File Types Database Management Sorting and Searching Data Multimedia Presentation Written Expression The Art of an Oral Presentations Review Common Mistakes using Visuals Computer Safety Living in a Digital World Using the Internet wisely Intellectual Property Middle School FBLA

Keyboarding (Unit 1: Proper Keyboarding Techniques)		
Duration 12 - 16 weeks	Topics Algorithms	Lesson Materials & Files
AKS & Strand: Keyboarding	<ul style="list-style-type: none"> • Why Learn Keyboarding? • Distinguish between good versus bad typing technique • Track keyboarding scores • Graph typing speeds or records using Excel • Set typing speed goals • Practice understanding muscle memory motor skills 	Keyboarding Technique Handout YouTube Video showing ergonomics of typing Tracking Scores in spreadsheet program (Excel) Use of Microtype and typing.com software
Assessments	Project: Complete set number of lessons each day/week Project: Complete Typing Report showing progress/graphs Unit Test (Showing memorization, technique, etc.)	
Discussion	Discuss the need to learn proper typing techniques Discuss the using of Excel to track data in business Discuss the importance of setting S.M.A.R.T. Goals in life	
Resources	http://MrHames.org/keyboarding/	



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21st Century Skills / Computer Applications (Unit 2: Solving Everyday Problems)		
Duration 2 - 6 weeks	Topics Algorithms <ul style="list-style-type: none"> • Business Fundamentals • Identify the Problem • Analyze possible solutions • Implement a strategy/solution • Evaluate Outcome 	Lesson Materials & Files <ul style="list-style-type: none"> * School Newspaper Project Handout * School Campaign Project Handout Online WebQuest Supplemental materials Customized curriculum materials *optional
AKS & Strand: 21st Century Skills Computer Applications		
Assessments	Project: Create digital portfolio of the problem and solution using a variety of Web 2.0 or desktop applications. Cumulative quiz Formative: Daily checklist of progress	
Discussion	Discuss the importance of being a problem solver in the 21 st century world Discuss the need to learn from our mistakes and be able to quickly change a course of action Discuss the need to be financially literate	
Resources	Various online and custom documents	

Programming (Unit 3: Understanding Basic Parts of a Computer and how it works)		
Duration 8 - 12 weeks	Topics Algorithms <ul style="list-style-type: none"> • Introduction to Programming/Coding • Events, Loops, If-Then Statements and much more... • Careers in Computer Programming • What is an Entrepreneur? • Basic Types of Businesses • Forming a Business • Logo/Taglines • Intellectual Property 	Lesson Materials & Files <ul style="list-style-type: none"> * CS-First – Google Club materials *Tynker MicroWorlds online materials *Code.org site *Code Avengers Various online videos Scratch (MIT) software and materials *optional
AKS & Strand: Programming Introduction to Business		
Assessments	Project: Create online portfolio of student learning using a variety of Web 2.0 or Desktop Apps Unit Test	
Discussion	Discuss the importance of knowing the basic parts of all computers	
Resources	Various online site and materials	



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Internet and Safety <i>(Unit 5: Safe and Wise Use of the Internet)</i>		
Duration 2 - 4 weeks	Topics Algorithms	Lesson Materials & Files
AKS & Strand: Internet and Safety	<ul style="list-style-type: none"> • Keeping Your Computer Safe • Keeping Yourself Safe Online • Evaluating Internet Sites • Proper Use of Digital Media/Apps 	Online Materials EverFi – Ignition Online Simulation Custom created curriculum Guest Speaker: SRO (School Resource Officer)
Assessments	Project: Create online portfolio of student learning using a variety of Web 2.0 or Desktop Apps Unit Test	
Discussion	Discuss the need to keep your devices safe and yourself safe in a digital world.	
Resources	Various online site	

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