

## DESE Model Curriculum

GRADE LEVEL/UNIT TITLE: 11-12/Basic Computer Concepts

Course Code: 034354

CIP Code: 11.0103

### **COURSE INTRODUCTION:**

**A knowledge and understanding of networking concepts prepare students for the career area of network administration. As technology advances, the demand will continue to increase for employees who are able to resolve computer network problems.**

**Students apply problem-solving skills to business situations exploring computer maintenance activities. Students will analyze software problems, install software applications programs and customize defaults, connect components of a local area network, use basic network protocol, and troubleshoot network problems.**

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<b>UNIT DESCRIPTION:</b>  Students will learn how computers are used, common operating systems, and the importance of computer maintenance.		<b>SUGGESTED UNIT TIMELINE:</b> 2 WEEKS  <b>CLASS PERIOD (min.):</b> 50 MINUTES				
<b>ESSENTIAL QUESTIONS:</b>  1. How are computers used? 2. Why is there more than one common operating system? 3. Why is periodic maintenance important?						
ESSENTIAL MEASURABLE LEARNING OBJECTIVES	CCSS LEARNING GOALS (Anchor Standards/Clusters)	CROSSWALK TO STANDARDS				
		GLEs /CLEs	PS	CCSS	OTHER	DOK
1. Demonstrate ethical conduct in everyday procedures (e.g., piracy, licensing, intellectual property, etc.)				RI11-12.1	IT-I.1	
				RI11-12.2	IT-I.2	
				RI11-12.3	IT-I.3	
				RI11-12.4	IT-I.4	
				RI11-12.5	IT-VIII.1	
				RI11-12.6	IT-VIII.2	
				RI11-12.7	IT-IX.1	
				RI11-12.10	IT-III.1	
				SL11-12.1	IT-111.2	
				SL111-12.2	IT-III.3m	
				SL11-12.3	IT-III.4	
				SL11-12.4	IT-IV.1	
				SL11-12.5	IT-IV.2	
				SL11-12.6	IT-IV.3	

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				L11-12.1	IT-IV.4	
				L11-12.2	IT-V.1	
				L11-12.3	IT-V.2	
				L11-12.4	IT-VI.1	
				L11-12.4	IT-VI.2	
				L11-12.5	IT-XV.1	
				L11-12.6	IT-XV.2	
				RST11-12.1	MGMT-V-A.1	
				RST11-12.2	MGMT-V-A.2	
				RST11-12.3	MGMT-V-A.3	
				RST11-12.4	MGMT-V-A.4	
				RST11-12.5	MGMT-VIII-A.1	
				RST11-12.6	MGMT-VIII-A.2	
				RST11-12.7	MGMT-VIII-A.3	
				RST11-12.8	MGMT-VIII-A.4	
				RST11-12.9		
				RST11-12.10		
				WHST11-12.1		
				WHST11-12.2		
				WHST11-12.4		
				WHST11-12.5		
				WHST11-12.6		
				WHST11-12.7		
				WHST11-12.8		
				WHST11-12.9		
				WHST11-12.10		
2. Use basic computer terminology correctly				RI11-12.1	IT-I.1	
				RI11-12.2	IT-I.2	
				RI11-12.3	IT-I.3	

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				RI11-12.4	IT-I.4	
				RI11-12.5	IT-VIII.1	
				RI11-12.6	IT-VIII.2	
				RI11-12.7	IT-IX.1	
				RI11-12.10	IT-III.1	
				SL11-12.1	IT-111.2	
				SL111-12.2	IT-III.3m	
				SL11-12.3	IT-III.4	
				SL11-12.4	IT-IV.1	
				SL11-12.5	IT-IV.2	
				SL11-12.6	IT-IV.3	
				L11-12.1	IT-IV.4	
				L11-12.2	IT-V.1	
				L11-12.3	IT-V.2	
				L11-12.4	IT-VI.1	
				L11-12.4	IT-VI.2	
				L11-12.5	IT-XV.1	
				L11-12.6	IT-XV.2	
				RST11-12.1	COMM-I-A.1	
				RST11-12.2	COMM-I-A.2	
				RST11-12.3	COMM-I-A.3	
				RST11-12.4	COMM-I-A.4	
				RST11-12.5	COMM-I-B.1	
				RST11-12.6	COMM-I-B.2	
				RST11-12.7	COMM-I-B.3	
				RST11-12.8	COMM-I-C.1	
				RST11-12.9	COMM-I-C.2	
				RST11-12.10	COMM-I-C.3	
				WHST11-12.1	COMM-I-C.4	

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				WHST11-12.2 WHST11-12.4 WHST11-12.5 WHST11-12.6 WHST11-12.7 WHST11-12.8 WHST11-12.9 WHST11-12.10	COMM-I-D.1 COMM-I-D.2 COMM-I-D.3 COMM-I-D.4 COMM-IV.1 COMM-IV.2	
3. Identify parts of a computer (components and media)				RI11-12.1 RI11-12.2 RI11-12.3 RI11-12.4 RI11-12.5 RI11-12.6 RI11-12.7 RI11-12.10 SL11-12.1 SL11-12.2 SL11-12.3 SL11-12.4 SL11-12.5 SL11-12.6 L11-12.1 L11-12.2 L11-12.3 L11-12.4 L11-12.4 L11-12.5 L11-12.6	IT-I.1 IT-I.2 IT-I.3 IT-I.4 IT-VIII.1 IT-VIII.2 IT-IX.1 IT-II.1 IT-II.2 IT-II.3 IV-V.1 IT-V.2 IT-VI.1 IT-VI.2 IT-XII.2 IT-XII.3 COMM-I-A.1 COMM-I-A.2 COMM-I-A.3 COMM-I-A.4 COMM-I-B.1	

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				RST11-12.1 RST11-12.2 RST11-12.3 RST11-12.4 RST11-12.5 RST11-12.6 RST11-12.7 RST11-12.8 RST11-12.9 RST11-12.10 WHST11-12.1 WHST11-12.2 WHST11-12.4 WHST11-12.5 WHST11-12.6 WHST11-12.7 WHST11-12.8 WHST11-12.9 WHST11-12.10	COMM-I-B.2 COMM-I-B.3 COMM-I-C.1 COMM-I-C.2 COMM-I-C.3 COMM-I-C.4 COMM-I-D.1 COMM-I-D.2 COMM-I-D.3 COMM-I-D.4 COMM-IV.1 COMM-IV.2	
4. Identify components of input, processing, output, and storage				RI11-12.1 RI11-12.2 RI11-12.3 RI11-12.4 RI11-12.5 RI11-12.6 RI11-12.7 RI11-12.10 SL11-12.1 SL11-12.2	IT-I.1 IT-I.2 IT-I.3 IT-I.4 IT-VIII.1 IT-VIII.2 IT-IX.1 IT-II.1 IT-II.2 IT-II.3	

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				SL11-12.3	IT-VI.1	
				SL11-12.4	IT-VI.2	
				SL11-12.5	IT-V.1	
				SL11-12.6	IT-V.2	
				L11-12.1	IT-XII.2	
				L11-12.2	IT-XII.3	
				L11-12.3	COMM-I-A.1	
				L11-12.4	COMM-I-A.2	
				L11-12.4	COMM-I-A.3	
				L11-12.5	COMM-I-A.4	
				L11-12.6	COMM-I-B.1	
				RST11-12.1	COMM-I-B.2	
				RST11-12.2	COMM-I-B.3	
				RST11-12.3	COMM-I-C.1	
				RST11-12.4	COMM-I-C.2	
				RST11-12.5	COMM-I-C.3	
				RST11-12.6	COMM-I-C.4	
				RST11-12.7	COMM-I-D.1	
				RST11-12.8	COMM-I-D.2	
				RST11-12.9	COMM-I-D.3	
				RST11-12.10	COMM-I-D.4	
				WHST11-12.1	COMM-IV.1	
				WHST11-12.2	COMM-IV.2	
				WHST11-12.4		
				WHST11-12.5		
				WHST11-12.6		
				WHST11-12.7		
				WHST11-12.8		
				WHST11-12.9		

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				WHST11-12.10		
5. Compare mainframes, servers, desktops, laptops, and mobile devices				RI11-12.1	IT-I.1	
				RI11-12.2	IT-I.2	
				RI11-12.3	IT-I.3	
				RI11-12.4	IT-I.4	
				RI11-12.5	IT-VIII.1	
				RI11-12.6	IT-VIII.2	
				RI11-12.7	IT-IX.1	
				RI11-12.10	IT-II.1	
				SL11-12.1	IT-II.2	
				SL11-12.2	IT-II.3	
				SL11-12.3	IT-III.1	
				SL11-12.4	IT-III.2	
				SL11-12.5	IT-III.3	
				SL11-12.6	IT-III.4	
				L11-12.1	IT-XII.2	
				L11-12.2	IT-XII.3	
				L11-12.3	IT-XV.1	
				L11-12.4	IT-XV.2	
				L11-12.4	COMM-I-A.1	
				L11-12.5	COMM-I-A.2	
				L11-12.6	COMM-I-A.3	
				RST11-12.1	COMM-I-A.4	
				RST11-12.2	COMM-I-B.1	
				RST11-12.3	COMM-I-B.2	
				RST11-12.4	COMM-I-B.3	
				RST11-12.5	COMM-I-C.1	
				RST11-12.6	COMM-I-C.2	



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				RST11-12.7	COMM-I-C.3	
				RST11-12.8	COMM-I-C.4	
				RST11-12.9	COMM-I-D.1	
				RST11-12.10	COMM-I-D.2	
				WHST11-12.1	COMM-I-D.3	
				WHST11-12.2	COMM-I-D.4	
				WHST11-12.4	COMM-IV.1	
				WHST11-12.5	COMM-IV.2	
				WHST11-12.6	COMP-I.1	
				WHST11-12.7	COMP-II.1	
				WHST11-12.8	COMP-II.2	
				WHST11-12.9	COMP-III.1	
				WHST11-12.10	COMP-III.2	
				A-SSE.1	COMP-IV.1	
				A-SSE.2	COMP-IV.2	
				A-APR.1	COMP-V.2	
				A-APR.7	COMP-VI-G.1	
				A-CED.1	COMP-VI-G.2	
				A-CED.3	COMP-VI-G.3	
				A-CED.4	COMP-VI-K.2	
				S-IC.1	COMP-VI-K.3	
				S-IC.2		
				S-IC.3		
				S-IC.4		
				S-ID.1		
				S-ID.2		
				S-ID.3		
				S-ID.4		
				S-ID.5		

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				S-ID.6 S-ID.7 S-MD.5 S-MD.6 S-MD.7 S-CP.1 S-CP.5 N-Q.1 N-Q.2 N-Q.3		
6. Differentiate between common operating systems, including file systems				RI11-12.1 RI11-12.2 RI11-12.3 RI11-12.4 RI11-12.5 RI11-12.6 RI11-12.7 RI11-12.10 SL11-12.1 SL11-12.2 SL11-12.3 SL11-12.4 SL11-12.5 SL11-12.6 L11-12.1 L11-12.2 L11-12.3 L11-12.4 L11-12.4	IT-I.1 IT-I.2 IT-I.3 IT-I.4 IT-VIII.1 IT-VIII.2 IT-IX.1 IT-III.1 IT-III.2 IT-III.3 IT-III.4 IT-II.1 IT-II.2 IT-II.3 IV-XV.1 IT-XV.2 MGMT-VIII-A.1 MGMT-VIII-A.2 MGMT-VIII-A.3	

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				L11-12.5	MGMT-VIII-A.4	
				L11-12.6	COMM-I-A.1	
				RST11-12.1	COMM-I-A.2	
				RST11-12.2	COMM-I-A.3	
				RST11-12.3	COMM-I-A.4	
				RST11-12.4	COMM-I-B.1	
				RST11-12.5	COMM-I-B.2	
				RST11-12.6	COMM-I-B.3	
				RST11-12.7	COMM-I-C.1	
				RST11-12.8	COMM-I-C.2	
				RST11-12.9	COMM-I-C.3	
				RST11-12.10	COMM-I-C.4	
				WHST11-12.1	COMM-I-D.1	
				WHST11-12.2	COMM-I-D.2	
				WHST11-12.4	COMM-I-D.3	
				WHST11-12.5	COMM-I-D.4	
				WHST11-12.6	COMM-IV.1	
				WHST11-12.7	COMM-IV.2	
				WHST11-12.8	COMP-I.1	
				WHST11-12.9	COMP-II.1	
				WHST11-12.10	COMP-II.2	
				A-SSE.1	COMP-III.1	
				A-SSE.2	COMP-III.2	
				A-APR.1	COMP-IV.1	
				A-APR.7	COMP-IV.2	
				A-CED.1	COMP-V.2	
				A-CED.3	COMP-VI-G.1	
				A-CED.4	COMP-VI-G.2	
				S-IC.1	COMP-VI-G.3	

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				S-IC.2 S-IC.3 S-IC.4 S-ID.1 S-ID.2 S-ID.3 S-ID.4 S-ID.5 S-ID.6 S-ID.7 S-MD.5 S-MD.6 S-MD.7 S-CP.1 S-CP.5 N-Q.1 N-Q.2 N-Q.3	COMP-VI-K.2 COMP-VI-K.3	
7. Perform basic computer filing tasks (e.g., naming, saving, deleting, and moving files)				RI11-12.1 RI11-12.2 RI11-12.3 RI11-12.4 RI11-12.5 RI11-12.6 RI11-12.7 RI11-12.10 SL11-12.1 SL11-12.2 SL11-12.3	IT-I.1 IT-I.2 IT-I.3 IT-I.4 IT-VIII.1 IT-VIII.2 IT-IX.1 IT-III.1 IT-III.2 IT-III.3 IT-III.4	

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				SL11-12.4	IT-IV.1	
				SL11-12.5	IT-IV.2	
				SL11-12.6	IT-IV.3	
				L11-12.1	IT-IV.4	
				L11-12.2	IT-II.1	
				L11-12.3	IT-II.2	
				L11-12.4	IT-II.3	
				L11-12.4	IT-V.1	
				L11-12.5	IT-V.2	
				L11-12.6	IT-VI.1	
				RST11-12.1	IT-VI.2	
				RST11-12.2	IT-VII.1	
				RST11-12.3	IT-VII.2	
				RST11-12.4	IT-XI.2	
				RST11-12.5	IT-XI.3	
				RST11-12.6	IT-XIV.1	
				RST11-12.7	IT-XIV.2	
				RST11-12.8	IT-XV.1	
				RST11-12.9	IT-XV.2	
				RST11-12.10	MGMT-VIII-A.1	
				WHST11-12.1	MGMT-VIII-A.2	
				WHST11-12.2	MGMT-VIII-A.3	
				WHST11-12.4	MGMT-VIII-A.4	
				WHST11-12.5	COMM-I-A.1	
				WHST11-12.6	COMM-I-A.	
				WHST11-12.7		
				WHST11-12.8		
				WHST11-12.9		
				WHST11-12.10		

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				N-Q.1 N-Q.2 N-Q.3		
8. Perform basic computer maintenance (including disk maintenance, software updates, and physical cleaning)				RI11-12.1 RI11-12.2 RI11-12.3 RI11-12.4 RI11-12.5 RI11-12.6 RI11-12.7 RI11-12.10 SL11-12.1 SL11-12.2 SL11-12.3 SL11-12.4 SL11-12.5 SL11-12.6 L11-12.1 L11-12.2 L11-12.3 L11-12.4 L11-12.4 L11-12.5 L11-12.6 RST11-12.1 RST11-12.2 RST11-12.3 RST11-12.4 RST11-12.5	IT-I.1 IT-I.2 IT-I.3 IT-I.4 IT-VIII.1 IT-VIII.2 IT-IX.1 IT-III.1 IT-III.2 IT-III.3 IT-III.4 IT-IV.1 IT-IV.2 IT-IV.3 IT-IV.4 IT-II.1 IT-II.2 IT-IT.3 IT-VI.1 IT-VI.2 IT-VII.1 IT-VII.2 IT-XIV.1 IT-XIV.2 IT-XV.1 IT-XV.2	

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				RST11-12.6 RST11-12.7 RST11-12.8 RST11-12.9 RST11-12.10 WHST11-12.1 WHST11-12.2 WHST11-12.4 WHST11-12.5 WHST11-12.6 WHST11-12.7 WHST11-12.8 WHST11-12.9 WHST11-12.10	MGMT-VIII-A.1 MGMT-VIII-A.2 MGMT-VIII-A.3 MGMT-VIII-A.4 COMM-I-A.1 COMM-I-A.2 COMM-I-A.3 COMM-I-A.4 COMM-I-B.1 COMM-I-B.2 COMM-I-B.3 COMM-I-C.1 COMM-I-C.2 COMM-I-C.3 COMM-I-C.4 COMM-I-D.1 COMM-I-D.2 COMM-I-D.3 COMM-I-D.4 COMM-IV.1 COMM-IV.2	
<p><b>ASSESSMENT DESCRIPTIONS*:</b> (Write a brief overview here. Identify Formative/Summative. Actual assessments will be accessed by a link to PDF file or Word doc. )</p> <p>Informal assessments may be utilized such as observation with checklist and quizzes embedded in vendor curriculum.</p> <p>Since most assessment items in network administration curricula are vendor specific and copyrighted, actual examples cannot be provided. Some suggested vendors are Cisco, Microsoft, and Comp-TIA.</p> <p><b>*Attach Unit Summative Assessment, including Scoring Guides/Scoring Keys/Alignment Codes and DOK Levels for all items. Label each assessment according to the unit descriptions above ( i.e., Grade Level/Course Title/Course Code, Unit #.)</b></p>						

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<b>Obj. #</b>	<b>INSTRUCTIONAL STRATEGIES (research-based): (Teacher Methods)</b>
1-8	<b>Teacher demonstrates and lectures on basic computer information, including personal computers, printers, scanners, laptops, and portable devices.</b>
	<b>Most instructional activities in network administration curricula are vendor specific and copyrighted, suggested vendors are Cisco, Microsoft, and Comp-TIA.</b>
<b>Obj. #</b>	<b>INSTRUCTIONAL ACTIVITIES: (What Students Do)</b>
1-8	<b>Students take notes and demonstrate knowledge of basic computer information.</b>
<b>UNIT RESOURCES: (include internet addresses for linking)</b>  <a href="http://www.mcce.org">www.mcce.org</a> – Resources @MCCE:  <b>BE DVD ROM 26 - The History of Computers</b> Cambridge Educational LAWRENCEVILLE, NJ, CAMBRIDGE EDUCATIONAL, 2001. DVD ROM — Initially designed as large-scale calculators, computers have quickly become indispensable tools in every field of endeavor. This program traces the course of technological innovations leading up to today's computers, from Charles Babbage and his analytical engine of the 1860s to the latest laptops. This program shows how ideas such as Boolean logic, the binary system, magnetic/iron core memory, and microprocessors have dramatically increased the capacity of computers while drastically reducing their size, a phenomenon known as Moore's Law. 26 minutes.  <b>BE DVD ROM 28 - Lifting the Lid: How Computers Work</b> Cambridge Educational LAWRENCEVILLE, NJ, CAMBRIDGE EDUCATIONAL, 2002. DVD ROM — Most computer users are familiar with terms such as chips, hard drives, and RAM, but what exactly is a chip and what does it do? What does a hard drive look like and how does it work? This program goes inside today's typical computer to look at the functions of its main components. Close-up visuals show the inner workings of the hard disc drive, and demonstrations make concepts such as memory, binary coding, and RAM easy to understand. 31 minutes.  <b>BE DVD ROM 65 - Your Computer and Your Health</b> Educational Video Network	



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HUNTSVILLE, TX, EDUCATIONAL VIDEO NETWORK, 2004.

DVD ROM — Discover how computer use can affect your physical well-being, and learn what you can do to prevent injuries. Includes: How to recognize and prevent workplace-related injuries; How to seat oneself properly in the workplace; Exercises that can be used to reduce daily strain. 30 minutes.