

Information and Communication Technology II (2014): Grades 6, 7, 8

Adopted 2014

Orientation, Ethics, and Keyboarding

- 1. Identify school policies, program policies, and safety procedures related to Information and Communication Technology II (ICT II). 1.1**
 - a. Preview school handbook, the technology acceptable use policy, and other safety procedures for building level. 1.1.A
 - b. Preview course outline and its relevance in today's workforce. 1.1.B
 - c. Recognize appropriate safety measures in relation to technology in the computer lab and internet usage. 1.1.C
 - d. Provide an overview of career pathways and careers related to each pathway. 1.1.D

- 2. Identify ethical issues related to technology and the workplace. 1.2**
 - a. Discuss ethics related to computer usage. 1.2.A
 - b. Discuss ethics related to educational applications. 1.2.B
 - c. Discuss ethics related to the workplace. 1.2.C

- 3. Perform keyboarding applications. 1.3**
 - a. Demonstrate proper keyboarding techniques (ongoing). 1.3.A
 - b. Demonstrate speed and accuracy with the touch keyboard (ongoing). 1.3.B

- 4. Discover career opportunities within the Law, Public Safety, Corrections, & Security career cluster. 1.4**
 - a. Research career opportunities for employment in law, public safety, corrections, and security by exploring the Law, Public Safety, Corrections, & Security career cluster. 1.4.A
 - b. Examine the requirements, skills, wages, education, and employment opportunities in at least one career pathway from the Law, Public Safety, Corrections, & Security career cluster. 1.4.B
 - c. Link technology skills and knowledge of ethics with employment opportunities in the Law, Public Safety, Corrections, & Security career cluster. 1.4.C

5. Interact with teachers, peers, and course material using a learning management system. 1.5

- a. Discover online learning environments and how they operate among teachers and students. 1.5.A
 - b. Demonstrate proper email etiquette. 1.5.B
 - c. Participate in online learning methods such as discussion boards, student journals, blogs, wikis, and so forth. 1.5.C
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Lab Management and Networking

1. Discover career opportunities within the Information Technology career cluster. 2.1

- a. Research career opportunities for employment in lab management and networking by exploring the Information Technology career cluster. 2.1.A
 - b. Examine the requirements, skills, wages, education and employment opportunities in at least one career pathway from the Information and Technology career cluster. 2.1.B
 - c. Link lab management and networking skills with employment opportunities in the Information Technology career cluster. 2.1.C
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2. Explain basic network components. 2.2

- a. Discuss the terminology and components of a successful network. 2.2.A
 - b. List advantages of using a network. 2.2.B
 - c. Differentiate among different types of networks. 2.2.C
 - d. Describe the various network communications. 2.2.D
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3. Demonstrate network design and management. 2.3

- a. Recognize different ways to set up a network using multiple topologies. 2.3.A
 - b. Differentiate between network designs. 2.3.B
 - c. Recreate your classroom lab network design. 2.3.C
 - d. Design a computer lab. 2.3.D
 - e. Troubleshoot common problems in a networked computer lab. 2.3.E
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Financial Literacy

1. Discover career opportunities within the Finance career cluster. 3.1

- a. Research career opportunities for employment in financial literacy by exploring the Finance career cluster. 3.1.A
- b. Examine the requirements, skills, wages, education, and employment opportunities in at least one career pathway from the Finance career cluster. 3.1.B
- c. Link financial literacy skills with employment opportunities in the Finance career cluster. 3.1.C

2. Apply reliable information and systematic decision making to personal financial decisions. 3.2

- a. Find and evaluate financial information from a variety of sources. 3.2.A
 - b. Make financial decisions by systematically considering alternatives and consequences. 3.2.B
 - c. Control personal information. 3.2.C
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3. Use a career plan to develop personal income potential. 3.3

- a. Evaluate income potential of various career options. 3.3.A
 - b. Identify sources of personal income. 3.3.B
 - c. Describe factors affecting take-home pay. 3.3.C
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4. Organize personal finances and use a budget to manage cash flow. 3.4

- a. Develop a plan for spending and saving. 3.4.A
 - b. Describe how to use different payment methods. 3.4.B
 - c. Manage and maintain a functioning budget. 3.4.C
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Spreadsheet Applications

1. Investigate spreadsheet applications in the context of the Human Services career cluster. 4.1

- a. Research opportunities for employment in Human Services career cluster. 4.1.A
 - b. Link careers in the Human Services career cluster to spreadsheet application skills. 4.1.B
 - c. Apply skills and knowledge of human services and spreadsheet applications to a real-world scenario associated with the Human Services career cluster. 4.1.C
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2. Discover the purposes of spreadsheet applications. 4.2

- a. Define basic terminology relating to a spreadsheet program. 4.2.A
 - b. Identify parts of the spreadsheet window. 4.2.B
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3. Perform spreadsheet applications in the context of the Human Services career cluster. 4.3

- a. Demonstrate the use of basic spreadsheet format and edit commands. 4.3.A
- b. Demonstrate the use of basic spreadsheet formulas. 4.3.B
- c. Demonstrate the use of basic spreadsheet functions. 4.3.C
- d. Demonstrate other basic spreadsheet commands including sorting and filtering. 4.3.D

4. Develop and interpret spreadsheet tables, charts, and figures to support written and oral Communication. 4.4

- a. Create spreadsheet tables, charts, and figures to support written and oral communication. 4.4.A
 - b. Interpret spreadsheet tables, charts, and figures used to support written and oral communication. 4.4.B
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Database Applications

1. Discover career opportunities within the Health Science career cluster. 5.1

- a. Research opportunities for employment in Health Services career cluster. 5.1.A
 - b. Link careers in the Health Services career cluster to database application skills. 5.1.B
 - c. Apply skills and knowledge of health services and database applications to a real-world scenario associated with the Human Services career cluster. 5.1.C
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2. Discover the purposes of database applications. 5.2

- a. Define terminology associated with database applications. 5.2.A
 - b. Identify components of a database application screen. 5.2.B
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3. Perform database applications. 5.3

- a. Demonstrate the use of a database. 5.3.A
 - b. Create and modify forms and tables in a database. 5.3.B
 - c. Enter and update records in a database. 5.3.C
 - d. Sort records in a database. 5.3.D
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4. Perform advanced database applications. 5.4

- a. Compare and contrast a database and a relational database. 5.4.A
 - b. Create queries. 5.4.B
 - c. Create mailing labels. 5.4.C
 - d. Create a mail merge using a database and word processing file. 5.4.D
 - e. Create reports. 5.4.E
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Design Applications

- 1. Discover career opportunities within the Science, Technology, Engineering and Mathematics; Transportation, Distribution and Logistics; and Architecture and Construction career clusters. 6.1**
 - a. Research career opportunities for employment in design in the Science, Technology, Engineering and Mathematics; Transportation, Distribution and Logistics; and Architecture and Construction career clusters. 6.1.A
 - b. Link design application skills with employment opportunities in the Science, Technology, Engineering and Mathematics; Transportation, Distribution and Logistics; and Architecture and Construction career clusters. 6.1.B
 - c. Apply skills and knowledge in these areas and design applications to a real-world scenario associated with these career clusters. 6.1.C

- 2. Discover the purposes of design applications. 6.2**
 - a. Identify terminology used with advanced design applications. 6.2.A
 - b. Identify the basic components of an advanced design application screen. 6.2.B

- 3. Perform design applications. 6.3**
 - a. Demonstrate the use of basic computer-aided design application software. 6.3.A
 - b. Create a simple model using basic styling and simple colors. 6.3.B

- 4. Create advanced design applications. 6.4**
 - a. Make complex choices when using a computer-aided design application. 6.4.A
 - b. Incorporate advanced computer-aided design applications to create a comprehensive project. 6.4.B

Graphic Design Applications

- 1. Discover career opportunities within the Arts, A/V Technology, & Communications and the Marketing career clusters. 7.1**
 - a. Research career opportunities for employment in graphic design by exploring the Arts, A/V Technology, & Communication and the Marketing career clusters. 7.1.A
 - b. Link graphic design skills with employment opportunities in the Arts, A/V Technology, & Communications and the Marketing career clusters. 7.1.B
 - c. Apply skills and knowledge of graphic design applications to a real-world scenario associated with the Arts, A/V Technology, & Communications and the Marketing career clusters. 7.1.C

- 2. Discover the purposes of graphic design applications. 7.2**
 - a. Identify terminology used with graphic design applications. 7.2.A
 - b. Identify the basic components of a graphic design application screen. 7.2.B
 - c. Identify legal issues related to graphic design 7.2.C
 - d. Differentiate between 2D and 3D computer graphic design concepts. 7.2.D

3. Perform graphic design applications. 7.3

- a. Create design elements for 2D and 3D products (such as business card, letterhead, magazine cover, and so forth.) 7.3.A
 - b. Edit design elements for 2D and 3D products. 7.3.B
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4. Generate and manipulate graphics in common graphic design applications. 7.4

- a. Construct transformations of graphic designs. 7.4.A
 - b. Construct graphic animations. 7.4.B
 - c. Generate the graphics and animations. 7.4.C
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Web Design Applications

1. Discover career opportunities within the Agriculture, Food, and Natural Resources and Manufacturing career clusters. 8.1

- a. Research careers opportunities for employment in web design by exploring the Agriculture, Food, and Natural Resources and Manufacturing career clusters. 8.1.A
 - b. Link web design skills with employment opportunities in the Agriculture, Food, and Natural Resources and Manufacturing career clusters. 8.1.B
 - c. Apply skills and knowledge of web design applications to a real-world scenario associated with the Agriculture, Food, and Natural Resources and Manufacturing career clusters. 8.1.C
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2. Discover the purposes of web design applications. 8.2

- a. Define terminology associated with web design applications. 8.2.A
 - b. Identify components of a web design application screen. 8.2.B
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3. Perform basic web design applications using the HTML programming language. 8.3

- a. Demonstrate knowledge of HTML programming language. 8.3.A
 - b. Create and modify web pages using HTML programming language. 8.3.B
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4. Perform advanced web design applications. 8.4

- a. Demonstrate knowledge of a web design program. 8.4.A
 - b. Create and modify webpages using a web design program. 8.4.B
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5. Design and create a web page. 8.5

- a. Research a selected topic in order to design a webpage. 8.5.A
 - b. Present researched information in a functional webpage. 8.5.B
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Career Preparation

1. Complete interest profiler and career exploration exercises. 9.1

- a. Complete career interest survey and log results. 9.1.A
- b. Explore career options in career cluster(s) of choice. 9.1.B

2. Complete a career plan builder. 9.2

- a. Explore careers identified in the interest profiler. 9.2.A
- b. Explore future education plans and lifestyle choices. 9.2.B
- c. Complete an 8th grade course builder plan. 9.2.C

3. Develop an individual career and academic plan (iCAP). 9.3

- a. Link the iCAP to the 16 national career clusters and to secondary and postsecondary education. 9.3.A
- b. Apply the basic components of the iCAP to build a plan of study. 9.3.B
- c. Identify, select, and print courses that meet graduation requirements and that reflect the iCAP. 9.3.C

4. Complete a scholarship finder exercise. 9.4

- a. Identify types of scholarships available. 9.4.A
- b. Research and locate relevant college scholarships and applications. 9.4.B