

# 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

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- 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

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- 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

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- 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

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**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
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**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

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- 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
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**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
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**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
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**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
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**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
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**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
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**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
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### 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
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### 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
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**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