

Information & Communications Technology (ICT) Essentials 2 (2024)

Demonstrate knowledge of safety and privacy practices for online communication. The student will be able to:

9.ICT.0

9.1 Define “privacy” and relate it to the term “digital footprint.” 9.ICT.1

9.2 Describe the risks of communicating on social networking sites (e.g. Facebook, Twitter, Instagram) and identify ways to communicate safely. 9.ICT.2

9.3 Distinguish between copyright infringement, plagiarism and fair use in an educational setting and in relation to school projects, especially with music and pictures. 9.ICT.3

9.4 Describe online communication practices that contribute to cyberbullying. 9.ICT.4

9.5 Practice safe online communication techniques with Internet searches, email, chat rooms, and other social network websites. 9.ICT.5

9.6 Follow an Acceptable Use Policy (AUP) when accessing the Internet. 9.ICT.6

Develop and apply fundamental spreadsheet skills. The student will be able to: 10.ICT.0

10.1 Define “spreadsheet” and describe ways it may be used. 10.ICT.1

10.2 Identify the parts of the spreadsheet display, including cells, columns and rows, cell references, cell range. 10.ICT.2

10.3 Create and navigate through multiple spreadsheets in a file. 10.ICT.3

10.4 Insert and format various types of data (text, numeric, date/time) in a spreadsheet cells. 10.ICT.4

10.5 Select multiple cells, including adjacent and non-adjacent ranges, using mouse and keyboard techniques. 10.ICT.5

10.6 Cut, copy, and paste information from one or more cells to another part of the spreadsheet. 10.ICT.6

10.7 Use the undo and redo tools in a spreadsheet. 10.ICT.7

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- 10.8** Apply and modify cell formatting for currency, date and percentage values. 10.ICT.8
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- 10.9** Resize column width and row height in a spreadsheet. 10.ICT.9
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- 10.10** Insert and delete columns and rows in a spreadsheet. 10.ICT.10
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- 10.11** Merge and unmerge cells in a spreadsheet. 10.ICT.11
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- 10.12** Apply shading and borders to a spreadsheet. 10.ICT.12
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- 10.13** Describe the purpose of a table and how it relates to a spreadsheet. 10.ICT.13
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- 10.14** Create and print a table and/or range that displays and sums the values of different data types. 10.ICT.14
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- 10.15** Identify various types of charts (e.g., line, bar, pie, scatter) and common chart components (e.g., vertical axis, horizontal axis, legend), and explain when to use each chart type. 10.ICT.15
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- 10.16** Create a chart from existing data and format the pieces (data set), change the background color, and add appropriate titles and a legend. 10.ICT.16
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- 10.17** Use the auto sum function to calculate the values of multiple cells. 10.ICT.17
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- 10.18** Insert common functions (SUM, AVERAGE, COUNT, MAX, MIN) and simple mathematical formulas which include addition, subtraction, multiplication, or division into a spreadsheet. 10.ICT.18
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- 10.19** Distinguish between absolute and relative cell references in a spreadsheet. 10.ICT.19
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- 10.20** Use the sort function to organize information numerically or alphabetically, including multiple levels of sorting. 10.ICT.20
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- 10.21** Use the filter function to display spreadsheet data based on specific criteria. 10.ICT.21
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- 10.22** Use conditional formatting to highlight text in a spreadsheet. 10.ICT.22
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Develop and apply database skills. The student will be able to: 11.ICT.0

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- 11.1** Define database and describe real-world uses (e.g. search engines, schools, drivers licenses & car registrations, hospitals, retail, law enforcement). 11.ICT.1
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- 11.2** Distinguish between databases and spreadsheets. 11.ICT.2
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- 11.3** Identify advantages of using a database instead of alternatives (e.g., spreadsheets, electronic documents, paper). 11.ICT.3
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- 11.4** Define “Big Data” and describe how it is used in advertising. 11.ICT.4
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- 11.5** Identify the components of a database. 11.ICT.5
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- 11.6** Distinguish between fields and records in a database. 11.ICT.6
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- 11.7** Describe the basic data types and formats used in a database. 11.ICT.7
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- 11.8** Distinguish between a table and a query. 11.ICT.8
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- 11.9** Identify database keys, including primary and foreign. 11.ICT.9
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- 11.10** Identify the relationships between tables in databases (i.e., one-to-one, one-to-many, many-to-many). 11.ICT.10
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- 11.11** Distinguish between a query and a report. 11.ICT.11
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- 11.12** Identify various report types. 11.ICT.12
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- 11.13** Describe Structured Query Language (SQL) and discuss its use with databases. 11.ICT.13
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- 11.14** Identify and compare various database applications, including Microsoft Access, MySQL, Oracle. 11.ICT.14
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- 11.15** Create a database table that uses multiple data types. 11.ICT.15
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- 11.16** Add, Edit, and Delete records from a database table. 11.ICT.16
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- 11.17** Sort records in a database query or table. 11.ICT.17
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- 11.18** Troubleshoot common database errors, including data type errors, query syntax errors. 11.ICT.18
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- 11.19** Create a basic select query in one table. 11.ICT.19
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- 11.20** Create an action query to manipulate data. 11.ICT.20
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- 11.21** Create a query using primary and foreign keys. 11.ICT.21
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- 11.22** Create a simple table join. 11.ICT.22
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- 11.23** Import and export data from a database into a spreadsheet. 11.ICT.23
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- 11.24** Create relevant reports from a database. 11.ICT.24
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Demonstrate skill in using video editing software and equipment. The student will be able to: 12.ICT.0

12.1 Demonstrate ability to operate a video camera (e.g., Flip camera, cell phone). 12.ICT.1

12.2 Write storyboards to depict a one minute video segment. 12.ICT.2

12.3 Determine appropriate lighting needs. 12.ICT.3

12.4 Create video shots sufficient to produce a one minute video. 12.ICT.4

12.5 Identify the functions and benefits of the digital video software interface. 12.ICT.5

12.6 Demonstrate ability to edit, cut, erase, and insert video. 12.ICT.6

12.7 Edit video as needed to achieve desired message and length. 12.ICT.7

12.8 Describe a first complete run-through of the video production process. 12.ICT.8

12.9 Characterize the qualities of effective communication in a completed video. 12.ICT.9

12.10 Upload finished video files to a website. 12.ICT.10

Demonstrate proficiency in using audio editing software (e.g., Audacity). The student will be able to: 13.ICT.0

13.1 Identify the functions and benefits of the audio editing software interface. 13.ICT.1

13.2 Demonstrate ability to edit, cut, erase, and insert audio. 13.ICT.2

13.3 Edit audio as needed to achieve desired message and length. 13.ICT.3

13.4 Prepare a 30 second to 1 minute audio commercial project. 13.ICT.4

Demonstrate proficiency locating, gathering, and preparing textual, graphical, and image-based web content. The student will be able to: 14.ICT.0

14.1 Define the elements of a webpage and what makes a good webpage. 14.ICT.1

14.2 Describe effective text and image content for webpages based on how visitors use the web. 14.ICT.2

14.3 List guidelines and conventions for effective text on webpage. 14.ICT.3

14.4 Explain the inverted pyramid model of newspaper journalism and how it applies to web content. 14.ICT.4

14.5 Use word-processing software to create effective written content for a webpage. 14.ICT.5

14.6 Create and/or edit message-driven image content for a webpage using graphics software. 14.ICT.6

14.7 Access graphics through various recourses (e.g., scanner, digital camera, CD-ROM, clipart, copyright-free online graphics). 14.ICT.7

14.8 Plan the content and design of a basic webpage using strategies for effective Web communication, including brainstorming, determining audience, choosing content and media types, using white space. 14.ICT.8