IC3 Spark

Project Workbook

IC3 Spark
First Edition

LearnKey provides self-paced training courses and online learning solutions to education, government, business, and individuals world-wide. With dynamic video-based courseware and effective learning management systems, LearnKey provides expert instruction for popular computer software, technical certifications, and application development. LearnKey delivers content on the Web, by enterprise network, and on interactive CD-ROM. For a complete list of courses visit:

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Using This Workbook

The exercises in this manual serve as a companion to LearnKey's training and are organized by session to match the presented concepts. Within each session, exercises are arranged from easiest to most challenging. In the Introduction section of each session, you will find outlines of the training and sample lesson plans which will give you an overview of the training content and help you to structure your lessons. The following sections are included for each session of training:

Skills Assessment: The skills assessment will help you and your students to gauge their understanding of course topics prior to beginning any coursework. Each skill listed is tied directly to an exam objective. Understanding where your students feel less confident will aid you in planning and getting the most from the training.

Objective Mapping and Shoot File Links: The objective mapping provides a quick reference as to where in the training a specific certification exam objective is covered. The Files column lists the name of the Course Support files (Excel spreadsheets, Photoshop files, etc.) that are used and demonstrated during the training. The files will typically have a starting file containing all data necessary to begin the demonstrated skill, as well as a completed file which shows the final result.

Keyboard Shortcuts and Tips: The keyboard shortcuts and tips provide a reference of product-specific keyboard shortcuts and helpful hints to make working more efficient.

Short Answer and Matching: The short answer questions facilitate a recall of the basic training concepts to further aid in retention of the course topics and information in preparation for the training's Pre-Assessments, Post Tests, and MasterExam. The matching exercise provides additional learning reinforcement of terms and concepts found throughout the training in the course's glossary.

Projects: The projects in this manual are organized by session to match the concepts presented in the LearnKey training. Each project is assigned a difficulty level of either beginner, intermediate, or advanced. Some projects will be noted as "beginner-intermediate" or other range. Within each session, projects are arranged from easiest to most challenging. Each project includes a description of the task as well as steps required for successful completion. Note that the steps may not indicate each required action but will provide the expectation of what is required, leaving the action to the student. References to the concepts demonstrated in the LearnKey training that are required for successful completion of the project are also included. Each project will also indicate the files and software used to complete the tasks. Some projects may only include a file named "ProjectTitle_End." Projects only including an end file typically begin with a new file which is indicated in the first step. The "ProjectTitle_End" file is included to illustrate a possible correct result. Other projects may include a file named "ProjectTitle_Start" or other files. Projects with a "ProjectTitle_Start" file begin with that file instead of a new file. "Start" files typically contain data required for the project pre-inserted to focus the project on concepts versus data entry.

Best Practices Using LearnKey's Online Training

LearnKey offers video-based training solutions which are flexible enough to accommodate the private student, as well as educational facilities and organizations.

Our course content is presented by top experts in their respective fields and provides clear and comprehensive information. The full line of LearnKey products have been extensively reviewed to meet superior standards of quality. The content in our courses has also been endorsed by organizations, such as Certiport, CompTIA®, Cisco, and Microsoft. However, it is the testimonials given by countless satisfied customers that truly set us apart as leaders in the information training world.

LearnKey experts are highly qualified professionals who offer years of job and project experience in their subjects. Each expert has been certified in the highest level available for their field of expertise. This provides the student with the knowledge necessary to also obtain top-level certifications in the field of their choice.

Our accomplished instructors have a rich understanding of the content they present. Effective teaching encompasses not only presenting the basic principles of a subject, but understanding and appreciating organization, real-world application, and links to other related disciplines. Each instructor represents the collective wisdom of their field and within our industry.

Our Instructional Technology

Each course is independently created, based on standard objectives provided by the manufacturer for which the course was developed.

We ensure that the subject matter is up-to-date and relevant. We examine the needs of each student and create training that is both interesting and effective. LearnKey training provides auditory, visual, and kinesthetic learning materials to fit diverse learning styles. The following are three levels of implementation:

Standard Training Model

The standard training model allows students to proceed through basic training, building upon primary knowledge and concepts to more advanced application and implementation. In this method, students will use the following toolset:

Pre-assessment: The pre-assessment is used to determine the student's prior knowledge of the subject matter. It will also identify a student's strengths and weaknesses, allowing the student to focus on the specific subject matter he/she needs to improve most. Students should not necessarily expect a passing score on the pre-assessment as it is a test of prior knowledge.

Video training session: Each course of training is divided into sessions that are approximately two hours in length. Each session is divided into topics and subtopics.

Post test: The post test is used to determine the student's knowledge gained from interacting with the training. In taking the post test, students should not consult the training or any other materials. A passing score is 80 percent or higher. If the individual does not pass the post test the first time it is taken, LearnKey would recommend the incorporation of external resources, such as the workbook and additional customized instructional material.

Intermediate Training Model

The intermediate training model offers students additional training materials and activities which allows for better retention, review, and interaction. This model includes not only the standard model material, but also includes the following toolset:

Study guides: Study guides are a list of questions missed which can help students recognize areas of weakness and necessary focus. They can be accessed from either the pre-assessment or post test.

Labs: Labs are interactive activities that simulate situations presented in the training. Step-by-step instructions and live demonstrations are provided.

Workbooks: Workbooks have a variety of activities, such as glossary puzzles, short answer questions, practice exams, research topics, and group and individual projects, which allow the student to study and apply concepts presented in the training.

Master Training Model

The master training model offers the student an additional opportunity to prepare for certification by further examining his/her knowledge. This model includes the materials used in the standard and intermediate models, as well as the MasterExam.

MasterExam: The MasterExam draws from a large pool of questions to provide a unique testing experience each time it is taken. LearnKey recommends a student take and pass the exam, with a score of 80 percent or higher, four times in order to prepare for certification testing. Study guides can also be accessed for the MasterExam.

IC3 Spark Course Summary

LearnKey's IC3 Spark course is focused on teaching younger students the basic foundational knowledge covered in LearnKey's IC3 GS5 training. Join LearnKey expert Wyett Ihler for over two hours of online video training and project-based activities. Students will learn a broad range of computing knowledge and skills, including software, hardware, operating systems, key applications, and living online.

Benefits:
- Gain confidence using and understanding computers and technology
- Learn common program applications like word processing and spreadsheets
- Be prepared to pass the IC3 Spark exam

Skills Assessment

Instructions: Rate your skills on the following tasks from 1-5 (1 being needs improvement, 5 being excellent).

Skills	1	2	3	4	5
Describe various types of digital devices					
An understanding of how storage and memory affects usability					
Basic understanding of how to connect different peripheral devices					
Differences in cost, speed, and security between network connections					
Understand how to locate, move, rename, and copy files and folders					
Ability to find files using search capabilities					
Perform pre-computing tasks, such as breaking down processes into sequences					
Understanding of the meaning of cloud computing					
Know the advantages and disadvantages of cloud storage					
Use of cloud computing for file sharing, including setting permissions					
Identify basic threats to the security of computers and data					
Understand the importance of keeping all personal identities safe					
Importance to security of keeping applications and operating systems updated					
Recognize the difference between secured and unsecured websites					
Importance of protecting computers using antimalware software					
Know how to create New files and be able to use Save and Save As					
Know how to use Copy, Cut, and Paste					
Select parts of a document such as specific text or spreadsheet cells					
Perform basic text formatting					
Know how to use an application's Find function					
Know how to use the Undo function					
Use spell checking to identify and correct misspelled words					
Know how to insert images into documents					
Know how to resize or crop images					
Perform basic paragraph formatting skills, such as spacing, alignment, indentation, etc.					
Know how to print a word processing document					

Instructions: Rate your skills on the following tasks from 1-5 (1 being needs improvement, 5 being excellent).

Skills	1	2	3	4	5
Be able to create and use simple tables					
Understand common spreadsheet terms					
Know how to enter data into an existing spreadsheet					
Know how to insert and delete rows and columns					
Know how to modify row height and column width					
Know how to manipulate data within the cells of a spreadsheet					
Know how to create slides using predefined slide styles					
Know how to insert different types of media into a presentation					
Know how to change the order in which slides will appear					
Know how to use animations and slide transitions					
Understand how to present a slide show					
Understand the kinds of services provided through the Internet					
Understand common website navigation conventions					
Understand the differences between blogs, wikis, and forums					
Understand how to download apps					
Identify different genres of apps					
Understand the need to use appropriate etiquette in digital communications					
Understand how to attach or share pictures and documents to a message					
Know how to use instant/mobile communications, such as text messaging					
Understand the importance of protecting your identity online					
Recognize the need to avoid potentially harmful content					
Understand ways to deal with cyberbullying					
Understand the importance of practicing digital wellness					
Demonstrate understanding of the ethical use of digital media					
Identify ways to search, retrieve, and validate digital information					

IC3 Spark Time Tables

Session 1	Actual Time
Hardware, Storage, and Connections	00:08:16
Navigating Your Device	00:06:50
Cloud Computing	00:05:29
Computers and Security	00:06:03
Total Time	00:26:38

Session 2	Actual Time
Common Application Functions	00:27:54
Word Processing	00:05:33
Spreadsheets	00:06:57
Presentations	00:06:36
Total Time	00:47:00

Session 3	Actual Time
Internet and App Culture	00:06:12
Digital Communication	00:04:19
Using Technology Wisely	00:06:07
Total Time	00:16:38

***The actual time is calculated based on how long it will take to simply watch the video files.*

****The total training time (including watching the videos, completing the labs, projects, and assessments) may double or even triple the actual time.*

IC3 Spark

Session 1

Fill-in-the-Blanks

Instructions: While watching the IC3 Spark Session 1 training, fill in the missing words according to the information presented by the instructor. [References are found in the brackets.]

Hardware, Storage, and Connections

1. A desktop computer is primarily used in home or business settings. **[Hardware Basics]**

2. The iMac is an example of a desktop computer that combines all of the external pieces of a traditional desktop into one single piece of hardware. **[Hardware Basics]**

3. A laptop computer utilizes a touchpad in place of a mouse. **[Hardware Basics]**

4. Tablets and smartphones offer even more portability than a laptop computer. **[Hardware Basics]**

5. Computer storage is often stored in gigabytes or terabytes. **[Storage and Memory]**

6. As you fill the storage for your device, the computer's speed will decrease. **[Storage and Memory]**

7. Cameras, smartphones, external hard drives, and microphones are examples of peripheral computer devices. **[Connecting Devices]**

8. A USB cable is often used to connect a peripheral device and a computer together. **[Connecting Devices]**

9. A driver needs to be installed before a printer and computer can communicate. **[Connecting Devices]**

10. You can connect to a network using cellular, Wi-Fi, or wired connections. **[Network Connections]**

11. Wi-Fi signals rarely get higher than 200 feet. **[Network Connections]**

12. Geography plays a role in the range of service and the signal strength of your wireless networks. **[Network Connections]**

Navigating Your Device

13. You can move a file into a folder on a Windows desktop by clicking and dragging the file and placing it in the folder. **[OS and Software Basics]**

14. The Dock on a Mac computer is where you can access programs saved in the system. **[OS and Software Basics]**

15. Microsoft Word 2016 can be used on both Mac and Windows machines. **[OS and Software Basics]**

16. The Mac Spotlight Search feature lets you find items quickly on your computer. **[Searching, or Where's My Stuff?]**

17. One way to keep your information organized is to use logical and meaningful names for your data. **[Organization and Tasks]**

Cloud Computing

18. **Google Docs** is an example of a cloud computing app. **[What is The Cloud?]**

19. Cloud computing services are available as long as you have an **Internet** connection. **[What is The Cloud?]**

20. Setting a document to **view** only makes it impossible for people you share it with to edit the document. **[Using the Cloud]**

Computer and Security

21. A **virus** is detrimental software designed to run on a computer. **[Viruses and Malware]**

22. **Malware** is a general term which refers to viruses, trojan horses, spyware, and other harmful software. **[Viruses and Malware]**

23. It is important to use a **password** to secure your mobile devices. **[Theft and Personal Safety]**

24. Updates can help protect your devices from **viruses**. **[Updates? Yes, Please]**

25. If a website has **HTTPS** in the address field, it means it is a secure website. **[Secured vs. Unsecured Websites]**

Computers and Their Characteristics

Description:

There are several types of computers: desktops, laptops, tablets, phones, and other mobile devices. Each type can perform similar functions, but some perform certain tasks better than others and some have advantages over others.

From the list below, choose which characteristics apply to which type of computer. Each answer may be used multiple times.

Steps for Completion:

1. Characteristics
   a. Portable
   b. More powerful
   c. Uses mouse or touchpad
   d. Uses gestures or voice
   e. Usually made up of a tower, monitor, keyboard, and mouse
   f. Prone to theft

a. Desktops:

> **b. More powerful**
> **c. Uses mouse or touchpad**
> **e. Usually made up of a tower, monitor, keyboard, and mouse**

c. Laptops:

> **a. Portable**
> **b. More powerful**
> **c. Uses mouse or touchpad**

b. Tablets:

> **a. Portable**
> **d. Uses gestures or voices**
> **f. Prone to theft**

d. Phones (and other mobile devices):

> **a. Portable**
> **d. Uses gestures or voice**
> **f. Prone to theft**

Reference:

LearnKey's IC3 Spark Session 1:
  Hardware, Storage, and Connections: Hardware Basics

Estimated Time to Complete: 15 minutes

Project File: N/A

Difficulty: Beginner

Required Materials: N/A

Objectives:

1.0 Computing Hardware
  1.1 Computing Hardware
    1.1.a Describe various types of digital devices (such as desktop computers, laptop computers, tablets, and smartphones) and the purposes, advantages, and disadvantages of each

Understanding Memory and Storage

Description:

Computer memory and storage are two factors that affect what you can do and how fast you can do things with your computer. Computer memory is what your computer or device uses to perform tasks; typically, the more memory the faster your computer will run. Computer storage is where you store applications, photos, videos, and other files—the more storage you have, the more files you can save to your computer.

Currently, memory is measured in gigabytes (GB) while storage is measured in both gigabytes (GB) and terabytes (TB) with terabytes being bigger (1 TB = 1024 GB).

Steps for Completion:

Part 1: Your task is now to decide which of the following computers would be the fastest:

1. Example A:
   a. **16 GB of memory with 500 GB of storage**
   b. 12 GB of memory with 1 TB of storage
   c. 8 GB of memory with 750 GB of storage
2. Example B:
   a. 4 GB of memory with 500 GB of storage
   b. 6 GB of memory with 2 TB of storage
   c. **8 GB of memory with 1 TB of storage**
3. Example C:
   a. 2 GB of memory with 500 GB of storage
   b. 4 GB of memory with 2 TB of storage
   c. **6 GB of memory with 1 TB of storage**

Part 2: Now decide which of the following computers would store the most files:

4. Example A:
   a. 16 GB of memory with 500 GB of storage
   b. **12 GB of memory with 1 TB of storage**
   c. 8 GB of memory with 750 GB of storage
5. Example B:
   a. 4 GB of memory with 500 GB of storage
   b. **6 GB of memory with 2 TB of storage**
   c. 8 GB of memory with 1 TB of storage
6. Example C:
   a. **16 GB of memory with 1.5 TB of storage**
   b. 16 GB of memory with 1000 GB of storage
   c. 12 GB of memory with 500 GB of storage

7. Which would you rather have, a computer with more storage or more memory? Explain your answer.

No right answer, just need to provide a logical reason.

Reference:

LearnKey's IC3 Spark Session 1:

Hardware, Storage, and Connections: Storage and Memory

Estimated Time to Complete: 15 minutes

Project File: N/A

Difficulty: Beginner

Required Materials: N/A

Objectives:

1.0 Computing Hardware

  1.1 Computing Hardware

    1.1.b Demonstrate an understanding of how storage and memory affects usability

Knowing Your Desktop

Description:

Have you ever had someone try to describe how to get somewhere but they use names and terms that do not mean anything to you? Well, the same can be said of things on a computer—"click the thing" or "type in the space" are not very helpful. However, "click the Pictures folder on the desktop" or "type in the search box" are directions that are easy to follow if you and the person you are working with both understand the same terms.

Using the images below, identify the various parts of the desktop. Labels may be used more than once, but not all labels will be used for both images.

Steps for Completion:

a.	Desktop	c.	Folder	e.	Dock
b.	Menu bar	d.	File	f.	Spotlight Search

a. **Desktop**

b. **Folder**

c. **File**

d. **Taskbar**
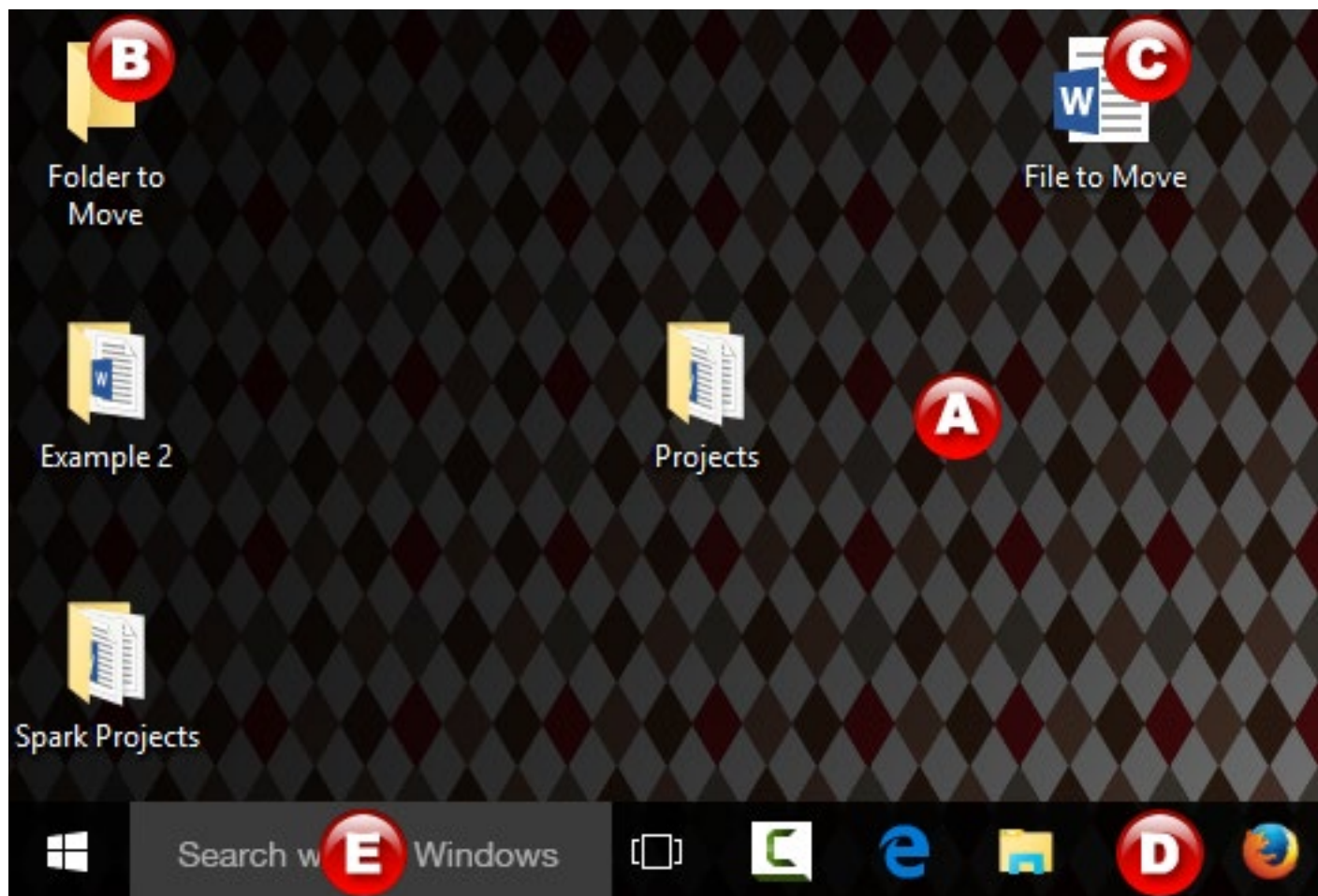
e. **Search**

Reference:

LearnKey's IC3 Spark Session 1:
Navigating Your Device: OS and Software Basics; Searching, or Where's My Stuff?

Estimated Time to Complete: 15 minutes

Project File: N/A

Difficulty: Beginner

Required Materials: N/A

Objectives:

1.0 Computing Hardware
  1.2 General Computer Software
    1.2.b Demonstrate knowledge of how to navigate operating systems and applications using menus, buttons, ribbons, tiles, etc.
    1.2.c Demonstrate the ability to find files using search capabilities

Know Your Threats

Description:

When using computers and the Internet it is very important to know and understand the threats that may be lurking and waiting to pounce.

Define the terms below and tell how you might protect against them.

Steps for Completion:

1. Virus:

> **A program or piece of code running on your computer without you knowing it that is designed to do just about anything, such as erase data, corrupt data, or gather personal information.**
>
> **Do not visit less-than-trustworthy websites or click on random popups; do not download or open attachments that you were not expecting to receive; install antivirus software and keep it up-to-date.**

2. Malware:

> **A term meaning "malicious software" that includes viruses and other threats; a file or program designed to harm a computer.**
>
> **Do not visit less-than-trustworthy websites or click on random popups; do not download or open attachments that you were not expecting to receive; install antivirus software and keep it up-to-date.**

3. Ransomware:

> **A nasty form of malware, ransomware locks out the rightful user of a computer and demands payment be made to unlock the computer.**
>
> **Do not visit less-than-trustworthy websites or click on random popups; do not download or open attachments that you were not expecting to receive; install antivirus software and keep it up-to-date.**

4. Theft:

> **Do not leave your devices unattended or in plain sight; make sure you have a passcode so in the event of theft at least your data will be protected.**

Reference:

LearnKey's IC3 Spark Session 1:
Computers and Security: Viruses and Malware; Theft and Personal Safety

Estimated Time to Complete: 15 minutes

Project File: N/A

Difficulty: Beginner

Required Materials: N/A

Objectives:
1.0 Computing Hardware
  1.4 Computers and Security
    1.4.a Be able to identify basic threats to the security of computers and data
    1.4.e Understand the value and importance of protecting computers using antimalware software

IC3 Spark

Session 2

Fill-in-the-Blanks

Instructions: While watching the IC3 Spark Session 2 training, fill in the missing words according to the information presented by the instructor. [References are found in the brackets.]

Common Application Functions

1. You can save a document in Word 2016 by opening the **File tab** and clicking Save. **[Application Basics]**

2. **Save As** lets you save a document that has already been saved. **[Application Basics]**

3. The **Undo** button is used to change a document back to an earlier state. **[Application Basics]**

4. **Ctrl+Z** or **Command+Z** is the keyboard shortcut for Undo. **[Application Basics]**

5. You can **double-click** a word to quickly select the entire word in Word 2016. **[Application Basics]**

6. **Ctrl+A** is a quick way you can select all of the data in an Office application. **[Format, Find, and Fix]**

7. You can perform spell checks in Office applications under the **Review tab**. **[Format, Find, and Fix]**

8. The Find and Replace feature in Office applications can be found under the **Home tab**. **[Format, Find, and Fix]**

9. You can place images in an Office application using the **Insert tab**. **[Working with Images]**

10. **Paint** is a Windows accessory application that comes with your Windows OS. **[Working with Images]**

Word Processing

11. You can align the text to the left, right, or **center** of a Word document. **[Functions and Features]**

12. Tables are placed into a Word document from the **Insert tab**. **[Setting the Table]**

13. Before printing a document, you should perform a **spell check** and save the document. **[Printing Your Masterpiece]**

14. You can find all of the print options available to you under the **File tab** in Word 2016. **[Printing Your Masterpiece]**

Spreadsheets

15. In Excel, **columns** are vertical and **rows** are horizontal. **[Do You Want to Build a Spreadsheet?]**

16. Columns are represented by **letters** and rows are represented by numbers in Excel. **[Do You Want to Build a Spreadsheet?]**

17. Spreadsheets allow you to **visually** organize information. **[Do You Want to Build a Spreadsheet?]**

18. You can insert a row in Excel quickly by **right-clicking** a row and clicking Insert. **[Rows, Columns, and All That Data]**

19. The **text wrapping** feature in Excel allows you to automatically fill and resize data in Excel. **[Rows, Columns, and All That Data]**

20. You can begin a function in Excel with an **equal sign** . **[Rows, Columns, and All That Data]**

21. **Borders** are a good way to separate data in Excel spreadsheets. **[Rows, Columns, and All That Data]**

Presentations

22. In the Insert tab under **Media** , you can add videos to a presentation. **[Creating a Presentation]**

23. You can modify and preview videos in your presentation under the **Playback** tab. **[Creating a Presentation]**

24. Videos in your presentation can be **looped** until they are stopped. **[Creating a Presentation]**

25. You need to select an item in PowerPoint before you can **animate** it. **[Modify, Animate, and Present]**

Saving, Saving, Over the Ocean Blue

Description:

Making sure you save your files is one of the fundamentals of using a computer. After all, if you do not save your files how are you going to keep them?

This project will help you learn the difference between Save and Save As.

Steps for Completion:

1. Open the Over the Ocean Blue.docx file (or use a file of your own creation).
2. Add a line of text to the document or make a formatting change of your choice.
3. Save the file.
4. Make an additional change (add more text to practice other formatting changes).
5. Save the file with the name, Blue Over the Ocean, or a name of your choice.

Reference:

LearnKey's IC3 Spark Session 2:
Common Application Functions: Application Basics

Estimated Time to Complete: 15 minutes

Project File: Over the Ocean Blue.docx

Difficulty: Beginner

Required Materials: Microsoft Word or other word processing application

Objectives:

2.0 Key Applications
  2.1 Common Application Functions and Features
    2.1.a Know how to create New files and be able to use Save and Save As

The Power of Three: Cut/Copy/Paste

Description:

To become an efficient computer user requires mastering the basics that will increase your speed on common tasks. Perhaps you are working in a spreadsheet and need to enter the same information in multiple cells, or you are working in a presentation app and want to cut part of a title and put it somewhere else, or perhaps you are in a word processing document and want to move a paragraph to a different place.

Cut, copy, and paste are the tools you will use for the next project. In the spreadsheet you will copy the days of the week from one calendar to the next. In the presentation you will cut part of the title, "Power" from the first slide and copy it to the next slide as the title. In the document you will copy the first line and paste it in as the last line.

Steps for Completion:

1. Open the Power of Three.xlsx file.
2. Select and copy the days of the week in the first calendar.
3. Paste the days of the week into the second calendar.
4. Open the Power of Three.pptx file.
5. Select and cut "Power" from the title on the first slide.
6. Paste the cut portion of the title as the title of the second slide.
7. Open the Power of Three.docx file.
8. Select and copy the first line.
9. Paste the first line as the last sentence.

Reference:

LearnKey's IC3 Spark Session 2:
Common Application Functions: Application Basics

Estimated Time to Complete: 15 minutes

Project File: Power of Three.xlsx, Power of Three.pptx, Power of Three.docx

Difficulty: Intermediate

Required Materials: Microsoft Excel, PowerPoint, and Word or comparable equivalents

Objectives:
2.0 Key Applications
  2.1 Common Application Functions and Features
     2.1.b Know how to Copy, Cut, and Paste

There's Always Time for the Spelling Checker

Description:

Of all the tools our applications come with, the spelling checker may very well be one of the most important. Unfortunately, it is also one that we forget to use.

This project will give you experience using the spelling checker, but be careful, some of the words the computer thinks are misspelled are not—it is up to you to know when to have the computer replace a word.

Steps for Completion:

1. Open the Always Time for Spell Check.docx file.
2. Run the spelling and grammar check.
3. Be sure to correct only the words that are actually misspelled.

Reference:

LearnKey's IC3 Spark Session 2:
    Common Application Functions: Format, Find, and Fix

Estimated Time to Complete: 15 minutes

Project File: Always Time for Spell Check.docx

Difficulty: Beginner

Required Materials: Microsoft Word or comparable equivalent

Objectives:

2.0 Key Applications
  2.1 Common Application Functions and Features
    2.1.g Know how to use spell checking to identify [and correct] misspelled words

Resize and Insert Picture

Description:

Having a well-written document is one thing, but having a well-written document with pictures is another.

Your next project will be to add a picture to an existing document, but the picture in question is very large. You will need to resize the image before inserting it into the document. Resizing the image to 10% of the original should work well. Insert the image after the text in the document.

Steps for Completion:

1. Open the Ode to Blue.docx file.
2. Using Paint (or equivalent), open the Big Blue.jpg file.
3. Resize the image to 10% of its original size.
4. Save the image with a new name (of your choice).
5. Insert the resized image in the Ode to Blue document after the text.

Reference:

LearnKey's IC3 Spark Session 2:
    Common Application Functions: Working with Images

Estimated Time to Complete: 15 minutes

Project File: Ode to Blue.docx, Big Blue.jpg

Difficulty: Intermediate

Required Materials: Microsoft Word, Microsoft Paint or comparable equivalents

Objectives:
2.0 Key Applications
  2.1 Common Application Functions and Features
    2.1.h Know how to insert images into documents
    2.1.i Know how to resize or crop images

Make That Document Spark

Description:

A document without formatting is like ice cream without fudge—still tasty, but not as good as it could be. So let's add a little fudge to a plain old document.

For this project you will add paragraph spacing, alignment, and indents as you see fit. Some suggestions might include centering the title, adding an indent to each of the paragraphs, and changing the line spacing to double. For added flair feel free to add bold, italics, or underline.

Steps for Completion:

1. Open the Make that Document Spark.docx file.
2. Use the paragraph options to center the title, add indents to the paragraphs, and change the line spacing to double—or alter the document as you see fit.
3. If you are feeling fancy, add bold, italics, or underline to some of the text.

Reference:

LearnKey's IC3 Spark Session 2:
Word Processing: Functions and Features

Estimated Time to Complete: 15 minutes

Project File: Make that Document Spark.docx file

Difficulty: Intermediate

Required Materials: Microsoft Word or comparable equivalent

Objectives:

2.0 Key Applications
  2.2 Word Processing Functions and Features
    2.2.a Know how to perform basic paragraph formatting skills, such as spacing, alignment, indentation, etc.

Making Sense of Your Spreadsheets

Description:

The usefulness of spreadsheets depends on how well they are organized. If you cannot see the data and make sense of of how it is put together then spreadsheets are harder to use.

Let's organize a spreadsheet. In this project you will make the data easier to read by correcting the column or row spacing and deleting extra rows or columns.

Steps for Completion:

1. Open the Spreadsheet Sense.xlsx file.
2. Delete the extra columns separating the information.
3. Delete the extra rows in the middle of the spreadsheet.
4. Correct the column width to show the cutoff information; if you are feeling especially adventurous try using text wrapping instead.
5. Correct the row height to show the cutoff information.

Reference:

LearnKey's IC3 Spark Session 2:
   Spreadsheets: Rows, Columns, and All That Data

Estimated Time to Complete: 15 minutes

Project File: Spreadsheet Sense.xlsx

Difficulty: Intermediate

Required Materials: Microsoft Excel or comparable equivalent

Objectives:
2.0 Key Applications
  2.3 Spreadsheet Functions and Features
    2.3.b Know how to enter data into an existing spreadsheet
    2.3.c Know how to insert and delete rows and columns
    2.3.d Know how to modify row height and column width

Add a Little Life to Your Presentation

Description:

Presentations are a great way to share information. No matter what you say, what you show while you are saying it will have an impact.

In this project you will add a transition of your choosing between each of the slides. For a little added spice, add an animation to the titles.

Steps for Completion:

1. Open the Life of the Presentation.pptx file.
2. Add transitions between each of the slides.

Reference:

LearnKey's IC3 Spark Session 2:
    Presentations: Modify, Animate, and Present

Estimated Time to Complete: 15 minutes

Project File: Life of the Presentation.pptx

Difficulty: Intermediate

Required Materials: Microsoft PowerPoint or comparable equivalent

Objectives:

2.0 Key Applications
  2.4 Presentation Application Functions and Features
    2.4.d Know how to use animations and slide transitions

IC3 Spark

Session 3

Fill-in-the-Blanks

Instructions: While watching the IC3 Spark Session 3 training, fill in the missing words according to the information presented by the instructor. [References are found in the brackets.]

Internet and App Culture

1. The Internet provides you with instant access to **information**. **[The Internet and You]**

2. You need a **browser** in order to access the Internet. **[Navigating the Net]**

3. **Chrome**, Firefox, Edge, Safari, and Opera are a few examples of Internet browsers. **[Navigating the Net]**

4. Internet browsers have an **address bar** and back and forward arrows to help you navigate on the Internet. **[Navigating the Net]**

5. A **blog** allows you to write about personal opinions, activities, experiences, events, or reviews. **[Navigating the Net]**

6. A wiki is an open **website** that any members can join and create. **[Navigating the Net]**

7. Forums are also known as **message boards**. **[Navigating the Net]**

8. If you have an **Apple device**, you get your apps from the App Store. **[Apps, Very Dangerous; You Go First]**

9. Like most things in life, not all apps are **free**. **[Apps, Very Dangerous; You Go First]**

10. Apps are always broken up into **genres** for you to quickly find. **[Apps, Very Dangerous; You Go First]**

Digital Communication

11. When you send an email, write in **complete sentences**. **[The Forgotten Art of Etiquette]**

12. **Text messages** may not get read immediately. **[The Forgotten Art of Etiquette]**

13. In any form of communication, it is important to remember your **audience**. **[The Forgotten Art of Etiquette]**

14. It is important to enter text in the **subject line** of an email. **[Attaching Items to Messages]**

15. Email providers often have a **file size** limit for email attachments. **[Attaching Items to Messages]**

16. Instant messaging services often let you have a **video call** with others. **[Texting and Instant Messaging]**

17. You can almost always add more than one **contact** to a group while instant messaging. **[Texting and Instant Messaging]**

Use Technology Wisely

18. Do not post your phone number, **address**, usernames, or passwords online. **[Online Identity]**

19. Always remember that the Internet has a **long memory** . **[Online Identity]**

20. If you are being cyberbullied, you should get **help** . **[Online Safety and Ethics]**

21. Copying movies or music online that is not yours is a form of theft and is commonly known as **piracy** . **[Online Safety and Ethics]**

22. Information on the **Internet** is not always true or accurate. **[It's True! I Found It on the Net!]**

23. Remember authority, accuracy, and **currency** when checking the credibility of source data on the Internet. **[It's True! I Found It on the Net!]**

24. **Eye strain** is a real thing and it is directly linked to how long you look at an electronic device. **[Step Outside]**

25. Taking a break once in a while can help you avoid **fatigue** . **[Step Outside]**

LearnKey
Let's Talk Browsers

Description:
Knowing how to use a browser is fundamental to effectively using the Internet. Most browsers are quite similar in function and have common features.

Using the image below, identify the various parts of a common browser—Firefox in this instance. Not all labels will be used.

Steps for Completion:

a.	Homepage	c.	Search bar
b.	Address bar	d.	Back button
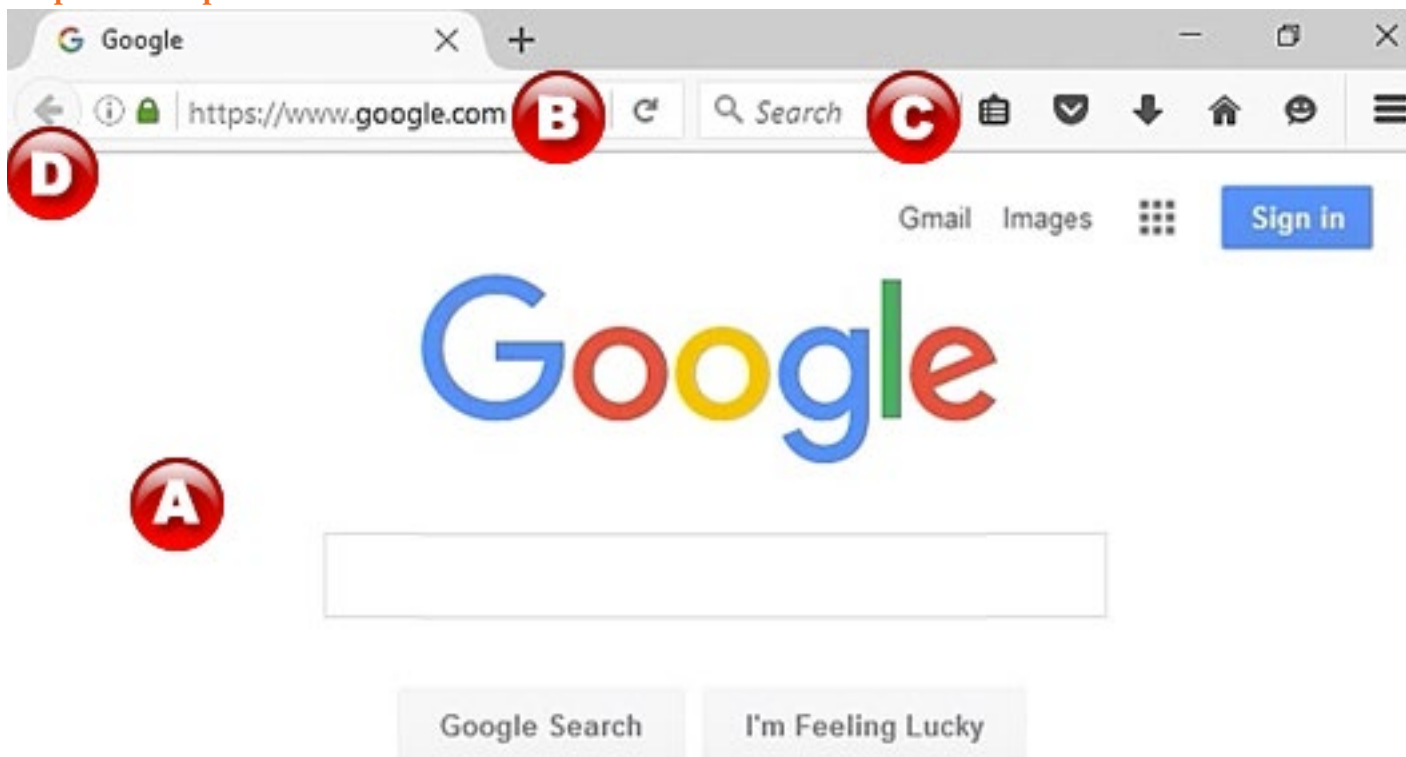
Reference:
LearnKey's IC3 Spark Session 3:
Internet and App Culture: Navigating the Net

Estimated Time to Complete: 15 minutes

Difficulty: Beginner

Required Materials: N/A

Project File: N/A

Objectives:
3.0 Living Online
  3.1 Internet and App Culture
    3.1.b Understand common website navigation conventions (such as the Back button, the Forward button, the address field, links, buttons, etc.)

Send an Email with an Attachment

Description:

Knowing how to send an email with an attachment is one of the skills that has become universally expected. Fortunately, it is not all that tough.

In this project you will send an email with an image attached. For this project, send the email to your teacher.

Steps for Completion:

1. Open your preferred email.
2. Add an address (your teacher's).
3. Add a subject (remember to keep it meaningful).
4. Add a short message.
5. Attach the The Setting of the Sun.jpg and send the email.

Reference:

LearnKey's IC3 Spark Session 3:
    Digital Communication: Attaching Items to Messages

Estimated Time to Complete: 15 minutes

Project File: The Setting of the Sun.jpg

Difficulty: Beginner

Required Materials: An active email account

Objectives:

3.0 Living Online
  3.2 Digital Communications
    3.2.b Understand how to attach or share pictures and documents to a message

But I Found It on the Net!

Description:

Just because you found something on the Internet does not mean that it is true. It is important to know how to determine if something you found is valid.

In this project you will show that you know and understand the process of figuring out whether or not information you have found on the Internet is true. First you will define the AAC process and then you will put it in action.

Steps for Completion:

1. Define AAC [**The definition simply needs to demonstrate understanding**]:

> **Authority: does the author of the information you found have experience or credentials that would give them the background to write the information?**
>
> **Accuracy: does the information you found contain multiple sources and provide links to those sources? Can these sources pass as authorities?**
>
> **Currency: how old is the information? Make sure the information is current to what it is describing—if you're researching video games from the 80s then finding information from the 80s would be valuable.**

2. Choose a subject to research on the Internet (George Washington, Sally Ride, Pacific Northwest Tree Octopus, etc.).
3. Once you have found an article, apply AAC and write whether or not the information is valid in the space below:

> **No right answer, just need to provide a logical reason which includes AAC.**

Reference:

LearnKey's IC3 Spark Session 3:
Using Technology Wisely: It's True! I Found It on the Net!

Estimated Time to Complete: 15 minutes

Project File: The Setting of the Sun.jpg

Difficulty: Intermediate

Required Materials: N/A

Objectives:
3.0 Living Online
  3.3 Using Technology Wisely
    3.3.f Identify ways to search, retrieve, and validate digital information

IC3 Spark

Appendix

IC3 Spark Lesson Plan

Each lesson plan is approximately 30 minutes and includes video training, fill-in-the-blanks, labs, projects, tests, as well as the course support files to follow along with the expert. There is also a note section for customizable lesson plans and extra notes. By adhering to the lesson plan, it will take approximately four weeks to complete the course, approximately 13.5 hours of time training with an additional 7-14 hours if the Master Level lesson plans are also completed.

Session 1 [Approximately 4.5 hours]

Lesson	Topic	Subtopic	Objectives	Activity	Notes
Lesson 1				Session 1 Pre-Assessment	

Lesson 2	Hardware, Storage, and Connections	Hardware Basics Storage and Memory Connecting Drives Network Connections	1.0 Computing Fundamentals
			  1.1 Computing Hardware
			    1.1.a Describe various types of digital services (such as desktop computers, laptop computers, tablets, and smartphones) and the purposes, advantages, and disadvantages of each
			    1.1.b Demonstrate an understanding of how storage and memory affects usability
			    1.1.c Demonstrate basic understanding of how to connect different peripheral devices (including auto-installation of drivers)
			    1.1.d Know the differences in cost, speed, and security between types of network connections (cellular, Wi-Fi, and wired)
			    1.1.e Understand the cost and availability differences in different types of mobile (wireless) connections
				Watch Session 1: Hardware, Storage, and Connections [8 minutes]
				
				Fill-in-the-Blanks Session 1: Questions 1-12
				
				Session 1 Lab 1: Internet Connection Identification
				
				Session 1 Project 1: Computers and their Characteristics	

Lesson 3	Hardware, Storage, and Connections	See Lesson 2	See Lesson 2	Session 1 Project 2: Understanding Memory and Storage Discuss hardware, storage, and connections	

Lesson 4	Navigating Your Device	OS and Software Basics Searching, or Where's My Stuff? Organization and Tasks	1.0 Computing Fundamentals
			  1.2 General Computer Software
			    1.2.a Demonstrate understanding of how to locate, move, rename, and copy files and folders
			    1.2.b Demonstrate knowledge of how to navigate operating systems and applications using menus, buttons, ribbons, tiles, etc.
			    1.2.c Demonstrate the ability to find files using search
			    1.2.d Demonstrate the ability to perform pre-computing tasks, such as, breaking down processes into a simple sequence, including loops and conditions (algorithm)
				Watch Session 1: Navigating Your Device [7 minutes]
				
				Fill-in-the-Blanks Session 1: Questions 13-17
				
				Session 1 Lab 2: Dragging and Dropping a File
				
				Session 1 Lab 3: Making a Copy
				
				Session 1 Lab 4: Rename a File
				
				Session 1 Lab 5: Moving a Folder
				
				Session 1 Lab 6: Renaming a Folder	

Lesson	Topic	Subtopic	Objectives	Activity	Notes
Lesson 5	Navigating Your Device	See Lesson 4	See Lesson 4	Session 1 Lab 7: Mac Identification Session 1 Lab 8: Windows Identification Session 1 Lab 9: Menu Bar Display Session 1 Lab 10: Searching for a Folder in Windows Session 1 Lab 11: Searching for a Folder on a Mac Session 1 Project 3: Knowing Your Desktop	

Lesson 6	Cloud Computing	What is The Cloud
		Using The Cloud
			1.0 Computing Fundamentals
			    1.3 Cloud Computing
			        1.3.a Demonstrate an understanding of the meaning of cloud computing
			        1.3.b Know the advantages and disadvantages of cloud storage
			        1.3.c Demonstrate the use of cloud computing for file sharing, including setting permissions
				Watch Session 1: Cloud Computing [6 minutes]
				
				Fill-in-the-Blanks Session 1: Questions 18-20
				
				Session 1 Lab 12: Sharing a Google Folder with the Share Icon
				
				Session 1 Lab 13: Sharing a Google Doc with a Right-Click	

Lesson 7	Computers and Security	Viruses and Malware
		Theft and Personal Safety
		Updates? Yes, Please
		Secured vs. Unsecured Websites
			1.0 Computing Fundamentals
			    1.4 Computers and Security
			        1.4.a Be able to identify basic threats to security of computers and data
			        1.4.b Understand the importance of keeping all personal identities safe
			        1.4.c Understand the importance to security of keeping applications and operating systems updated
			        1.4.d Recognize the difference between secured and unsecured websites (HTTP vs. HTTPS - SSL certificates)
			        1.4.e Understand the value and importance of protecting computers using anti-malware software
				Watch Session 1: Computers and Security [6 minutes]
				
				Fill-in-the-Blanks Session 1: Questions 22-25
				
				Session 1 Project 4: Know Your Threats	

Lesson 8				Review and discuss IC3 Spark Session 1	

Lesson	Topic	Subtopic	Objectives	Activity	Notes
Lesson 9				IC3 Spark Session 1 Post Test	

Session 1 Notes

Session 2 [Approximately 6 hours]

Lesson	Topic	Subtopic	Objectives	Activity	Notes
Lesson 1				Session 2 Pre-Assessment	

Lesson 2	Common Application Functions	Application Basics Format, Find, and Fix Working with Images	2.0 Key Applications
			  2.1 Common Application Functions and Features
			    2.1.a Know how to create New Files and be able to use Save and Save As
			    2.1.b Know how to Copy, Cut, and Paste
			    2.1.c Know how to select parts of a document such as specific text or spreadsheet cells
			    2.1.d Perform basic text formatting (such as setting italics, underline, or boldface; changing point-size, font color, etc.)
			    2.1.e Know how to use an application's Find function
			    2.1.f Know how to use the Undo function
			    2.1.g Know how to use spell checking to identify [and correct] misspelled words
			    2.1.h Know how to insert images into documents
			    2.1.i Know how to resize or crop images
				Watch Session 2: Common Application Functions [28 minutes]
				
				Fill-in-the-Blanks Session 2: Questions 1-10	

Lesson 3	Common Application Functions	See Lesson 2	See Lesson 2	Session 2 Lab 1: Creating a New Document Session 2 Lab 2: Saving a Document Session 2 Lab 3: Using the Save As Feature Session 2 Lab 4: Opening a New Document Session 2 Lab 5: Using a Template Session 2 Lab 6: Formatting Text	

Lesson	Topic	Subtopic	Objectives	Activity	Notes
Lesson 4	Common Application Functions	See Lesson 4	See Lesson 4	Session 2 Lab 7: Changing Font and Size Session 2 Lab 8: Using the Spelling Checker Session 2 Lab 9: The Find Feature Session 2 Lab 10: Inserting a Picture Session 2 Lab 11: Resizing an Image with Percent	
Lesson 5	Common Application Functions	See Lesson 4	See Lesson 4	Session 2 Project 1: Saving, Saving, Over the Ocean Blue Session 2 Project 2: The Power of Three: Cut/Copy/Paste	
Lesson 6	Common Application Functions	See Lesson 4	See Lesson 4	Session 2 Project 3: There's Always Time for Spell Check Session 2 Project 4: Resize and Insert Picture	
Lesson 7	Word Processing	Functions and Features Setting the Table Printing Your Masterpiece	2.0 Key Applications 2.2 Word Processing Functions and Features 2.2.a Know how to perform basic paragraph formatting skills, such as spacing, alignment, indentation, etc. 2.2.b Know how to print a word processing document 2.2.c Be able to create and use simple tables	Watch Session 2: Word Processing [6 minutes] Fill-in-the-Blanks Session 2: Questions 15-21 Session 2 Lab 12: Adding a Simple Table Session 2 Lab 13: Print a Document Session 2 Project 5: Make that Document Spark	
Lesson 8	Spreadsheets	Do You Want to Build a Spreadsheet? Rows, Columns, and All That Data	2.0 Key Applications 2.3 Spreadsheet Functions and Features 2.3.a Understand common spreadsheet terms (such as columns, rows, cells, worksheets, simple operators for formulas, etc.) 2.3.b Know how to enter data into an existing spreadsheet 2.3.c Know how to insert and delete rows and columns 2.3.d Know how to modify row height and column width 2.3.e Know how to manipulate data within the cells of a spreadsheet	Watch Session 2: Spreadsheets [7 minutes] Fill-in-the-Blanks Session 2: Questions 11-14 Session 2 Lab 14: Adding Another Row Session 2 Lab 15: Deleting a Row Session 2 Lab 16: Using Formulas Session 2 Lab 17: Adding a Border	

Lesson	Topic	Subtopic	Objectives	Activity	Notes
Lesson 9	Spreadsheets	See Lesson 8	See Lesson 8	Session 2 Project 6: Making Sense of Your Spreadsheets Discuss presentations	
Lesson 10	Presentations	Creating a Presentation Modify, Animate, and Present	2.0 Key Applications 2.4 Presentation Application Functions and Features 2.4.a Know how to create slides using predefined slide styles 2.4.b Know how to insert different types of media into a presentation (such as images, sounds, digital video, etc.) 2.4.c Know how to change the order in which slides will appear 2.4.d Know how to use animations and slide transitions 2.4.e Understand how to present a slide show	Watch Session 2: Presentations [7 minutes] Fill-in-the-Blanks Session 2: Questions 22-25 Session 2 Lab 18: Adding a New Slide Session 2 Lab 19: Adding a Transition Session 2 Project 7: Add a Little Life to Your Presentation	
Lesson 11				Review and discuss IC3 Spark Session 2	
Lesson 12				IC3 Spark Session 2 Post Test	

Session 2 Notes

Session 3 [Approximately 3 hours]

Lesson	Topic	Subtopic	Objectives	Activity	Notes
Lesson 1				Session 3 Pre-Assessment	

Lesson 2	Internet and App Culture	The Internet and You Navigating the Net Apps, Very Dangerous; You Go First	3.0 Living Online
			  3.1 Internet and App Culture
			    3.1.a Understand the kinds of services provided through the Internet (such as email, the Web, some apps, etc.)
			    3.1.b Understand common website navigation conventions (such as the Back button, the Forward button, the address field, links, buttons, etc.)
			    3.1.c Understand the differences between blogs, wikis, and forums
			    3.1.d Understand how to download apps
			    3.1.e Identify different genres of apps
				Watch Session 3: Internet and App Culture [6 minutes]
				
				Fill-in-the-Blanks Session 3: Questions 1-10
				
				Session 3 Lab 1: Navigate in a Browser
				
				Session 3 Lab 2: Download an App
				
				Session 3 Project 1: Let's Talk Browsers	

Lesson 3	Digital Communication	The Forgotten Art of Etiquette Attaching Items to Messages Texting and Instant Messaging	3.0 Living Online
			  3.3 Using Technology Wisely
			    3.3.a Understand the importance of protecting your identity online
			    3.2.b Understand how to attach or share pictures and documents to a message
			    3.2.c Know how to use instant/mobile communications, such as text messaging (SMS), etc.
				Watch Session 3: Digital Communication [4 minutes]
				
				Fill-in-the-Blanks Session 3: Questions 11-17
				
				Session 3 Lab 3: Attach a Document
				
				Session 3 Lab 4: Send an Instant Message
				
				Session 3 Project 2: Send an Email with an Attachment	

Lesson 4	Using Technology Wisely	Online Identity Online Safety and Ethics It's True! I Found It on the Net! Step Outside	3.0 Living Online
			  3.2 Digital Communications
			    3.2.a Understand the need to use appropriate etiquette in digital communications
			    3.3.b Recognize the need to avoid potentially harmful content
			    3.3.c Understand ways to deal with cyberbullying
			    3.3.d Understand the importance of practicing digital wellness
			    3.3.e Demonstrate understanding of the ethical use of digital media, such as in copying music files, videos, photographs, etc.
			    3.3.f Identify ways to search, retrieve, and validate digital information
				Watch Session 3: Using Technology Wisely [4 minutes]
				
				Fill-in-the-Blanks Session 3: Questions 18-25
				
				Session 3 Project 3: But I Found it on the Net!	

Lesson	Topic	Subtopic	Objectives	Activity	Notes
Lesson 5				Review and discuss IC3 Spark Session 3	
Lesson 6				IC3 Spark Session 3 Post Test	

Session 3 Notes

IC3 Spark Session 1 Outline

Hardware, Storage, and Connections

Hardware Basics

Storage and Memory

Connecting Drives

Network Connections

Navigating Your Device

OS and Software Basics

Searching, or Where's My Stuff?

Organization and Tasks

Cloud Computing

What is The Cloud

Using The Cloud

Computers and Security

Viruses and Malware

Theft and Personal Safety

Updates? Yes, Please

Secured vs. Unsecured Websites

IC3 Spark Session 2 Outline

Common Application Functions

Application Basics
Format, Find, and Fix
Working with Images

Word Processing

Functions and Features
Setting the Table
Printing Your Masterpiece

Spreadsheets

Do You Want to Build a Spreadsheet?
Rows, Columns, and All That Data

Presentations

Creating a Presentation
Modify, Animate, and Present

IC3 Spark Session 3 Outline

Internet and App Culture

The Internet and You

Navigating the Net

Apps, Very Dangerous; You Go First

Digital Communication

The Forgotten Art of Etiquette

Attaching Items to Messages

Texting and Instant Messaging

Using Technology Wisely

Online Identity

Online Safety and Ethics

It's True! I Found It on the Net!

Step Outside