Ministerio de Educación

Gobierno de Chile

100 TOP
Programming
WORDS TP BOOKLET
3° MEDIO

DEG
División Educación General

English Opens Doors Program

Division de Educación General - Mineduc

Ministerio de Educación
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Get to know your booklet

LESSONS


Listening


Reading

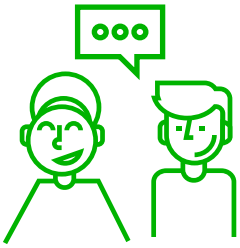

Speaking


Writing

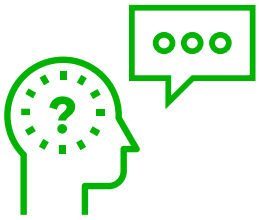

Project

ACTIVITIES


Individual


In pairs


Group Work


Think & discuss

ACTIONS


Read


Write


Watch a video


Speak


Listen

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¡Bienvenido!

Welcome!

ES

A continuación, te presentamos un recurso elaborado para avanzar en uno de nuestros principales objetivos: mejorar la calidad y fortalecer la enseñanza Técnico-Profesional en el país.

La creación de este Booklet responde a la importancia de aprender el idioma inglés en el contexto de cada especialidad técnica, de manera que en el futuro puedas acceder a mayores oportunidades de especialización y en el mundo laboral.

Es por esta razón que creamos este recurso didáctico, donde proponemos tanto a docentes como estudiantes, las 100 palabras más utilizadas en cada especialidad aplicadas en contextos específicos, fundamentales para el dominio del idioma.

Dado que en el mundo de hoy es importante entregar todas las opciones para favorecer el aprendizaje del inglés, el trabajo continuo de las actividades que ofrece cada unidad te permitirá desarrollar habilidades lingüísticas como la lectura, audición, expresión escrita y oral, además de trabajar colaborativamente en los proyectos al término de cada unidad.

Esperamos que este 100 Top Words Booklet sea una contribución para el aprendizaje del idioma en la especialidad que has elegido.

EN

We are pleased to present you with this resource, which was created to advance one of our primary objectives- improving and strengthening the quality of technical professional education in Chile.

The creation of this booklet responds to the importance of learning the English language in the specific context of each technical specialty and aims to provide you with access to greater opportunities in your area of concentration, and in the labor market in general.

With that in mind we have created this educational resource, through which we propose to teachers and students alike – the 100 most commonly used words for specific contexts, fundamental to language mastery in each area of technical specialization.

Given the current importance of providing all possible opportunities to foment English language acquisition, the successive completion of the activities offered in each unit will facilitate the development of your linguistic abilities, including reading comprehension, written and oral expression, as well in collaborative learning projects provided at the end of each unit.

We hope that the "100 Top Words" Booklet will contribute to your English language learning, in the technical professional concentration that you have chosen.

Tus comentarios nos importan: escríbenos a TPenglish@mineduc.cl

UNIT OVERVIEW OF OBJETIVES AND MAIN VOCABULARY		
UNIT	**OBJECTIVE**	**VOCABULARY**
Unit I **Programming and database**	**L I**: Design an algorithm based on the features presented in a video.	Algorithm (n) - task (n) programming (n) - technology (n) - steps (n) - function (v)
	LII: Develop a flowchart following the instructions from a reading.	Flowchart (n) - process (n) - decision-making (n) - arrow (n) - print (v) - read (v) input/output (n)
	LIII: Write an opinion from a piece of reading about 'data'.	Server (n) - user (n) - record (n) - data (n) - take down (v)
	LIV: Present a modified dialogue regarding different database needs.	Database (n) - issue (n) - customer (n) - that's great (exp) - exactly! (exp) - no problem (exp) - don't worry (exp)
	Project: Invent a solution for the needs of a specific scenario.	Include the vocabulary from previous lessons.
Unit II **Installation and configuration of computer equipment**	**LI:** Create a poster based on a text about hardware & software.	Software (n) - hardware (n) - components (n) - operating system (n) - hard disk (n) - CPU (n) - RAM (n) - keyboard (n) - motherboard (n) - monitor (n) - video card (n) - case (n)
	LII: Show support for an operating system using information from a video.	OS (n) -apps (n) -interact (v) - install (v) - compatible (adj) - language (n) - mobile device (n)
	LIII: Present a modified dialogue taking place in a tech repair.	Take a look (v) - repair (v) - appreciate (v) - odd (adj) - sort out (v) - issue (n) - run (v) - overheat (v)
	LIV: Reply to an email advising on computers as tech support.	Savvy (adj) - advice (n) - advise (v)- broken (adj) - fix (v) - features (n)
	Project: Create a computer guidebook based on the idea of an ideal computer.	Include the vocabulary from previous lessons.

UNIT OVERVIEW OF OBJETIVES AND MAIN VOCABULARY		
UNIT	**OBJECTIVE**	**VOCABULARY**
Unit III **User support and productivity**	**LI:** Speak about the importance of communication in user support situations based on a video.	Support (n) – support (v) – IT (n) – end-users (n) – communication (n) – back up (v)
	LII: Create a comic exemplifying the benefits of an office automation system read on a text.	Office automation system (n) – task (n) – word processing (n) – accomplish (v) – collect (v) – store (v) – manage (v) – manipulate (v)
	LIII: Speak about pieces of software that increase productivity.	User-friendly (adj) – tech-person (n) – compatible (adj) – productivity (n) – update (v) – backup (n) – install (v)
	LIV: Provide online support by writing tips on how to increase productivity.	Assistance (n) – tips (n) – increase (v) – online services (n)
	LV & LVI: Help a member of the community by providing personalized support.	Include the vocabulary from previous lessons
Unit IV **Operating Systems**	**LI:** Speak about the benefits and characteristics of open and closed source software/OS based on a video.	Open source software (n) – closed source software (n) – free (adj) – performance (n) – source code (n) – access (n)
	LII: Provide support to users in regard to the frequently asked questions about upgrading an OS.	Upgrade (v) – provide (v) – support (v) – version (n) – release (v) – run (v) – vulnerable (adj) – discontinue (v)
	LIII: Survey the class regarding their experiences and preferences of operating systems.	Survey (v) – survey (n) – satisfied (adj) – experience (n)
	LIV: Create a tutorial on how to install an operating system.	Brand new (adj) – restart (v) – insert (v) – hold (v) – flash drive (n) – turn off (v)
	Project: Recommend an operating system and describe its features on a video.	Include the vocabulary from previous lessons
Vocabulary Extension	**Vocabulary:** Spot the bugs from different algorithms.	Remove (v) - behave (v) - debug (v) - produces (v) -solve (v) - spot (v)

Programming Booklet Glossary

(A)

1. Accomplish (v) Put in effect; to gain with effort.

2. Advice (n) A proposal for an appropriate course of action.

3. Appreciate (v) Increase the value of; gain in value; be fully aware of; realize fully; recognize with gratitude; be grateful for; hold dear.

4. Access (n) The act of approaching or entering; a way of entering or leaving; (computer science) the operation of reading or writing stored information.

5. Advise (v) Inform (somebody) of something; give advice to; make a proposal, declare a plan for something.

6. Algorithm (n) A precise rule (or set of rules) specifying how to solve some problem.

7. App (n) An application, especially as downloaded by a user to a mobile device.

8. Assistance (n) The activity of contributing to the fulfillment of a need.

(B)

9. Backup (n) (computer science) A copy of a file or directory on a separate storage device.

10. Back up(v) Copy computer information.

11. Broken (adj) Physically and forcibly separated into pieces or cracked or split.

(C)

12. Case (n) A computer case, also known as a computer chassis, tower, system unit, CPU (when referring to the case as a whole rather than the processor) usually excluding the display, keyboard, and mouse.

13. Collect (v) Bring or gather together (a number of things).

14. Compatible (adj) Able to exist and perform in harmonious or agreeable combination.

15. Chip (n) A small piece of semiconducting material (usually silicon) on which an integrated circuit is embedded.

16. CPU (n) (computer science) The part of a computer (a microprocessor chip) that does most of the data processing.

17. Closed source Software (n) A software that is the intellectual property of a specific company. For example, 'Office' is a closed source application belonging to Microsoft.

18. Communication (n) Something that is communicated by or to or between people or groups; the activity of communicating; the activity of conveying information; a connection allowing access between persons or places.

19. Customer (n) Someone who pays for goods or services.

(D)

20. Data (n) A collection of facts from which conclusions may be drawn.

21. Database (n) An organized body of related information.

22. Decision-making (n) The cognitive process of reaching a decision.

23. Don't worry (phrase) Indicates to the interlocutor not to worry about something.

E	**24. Exactly** (adv)	Indicating exactness or preciseness; in a precise manner; just as it should be.
	25. End-user (n)	The ultimate user for which something is intended.
F	**26. Feature** (n)	A prominent aspect of something.
	27. Fix (v)	Make ready or suitable or equip in advance for a particular purpose or for some use, event, etc.
	28. Flowchart (n)	A diagram of the sequence of operations in a computer program or an accounting system.
	29. Function (v)	Perform as expected when applied; perform duties attached to a particular office or place or function; serve a purpose, role, or function.
G	**30. Gather** (v)	Come together; assemble or accumulate.
H	**31. Hard disk** (n)	A rigid non-removable magnetic disk with a large data storage capacity.
	32. Hardware (n)	(computer science) The mechanical, magnetic, electronic, and electrical components making up a computer system; instrumentalities (tools or implements) made of metal.
	33. Help desk (n)	A service providing information and support to computer users, especially within a company.
I	**34. Input** (n)	A component of production; signal going into an electronic system.
	35. Input (v)	Enter (data or a program) into a computer.
	36. Increase (n)	A process of becoming larger or longer or more numerous or more important; a quantity that is added.
	37. Install (v)	Set up for use; place; put into an office or a position.
	38. Issue (n)	The act of providing an item for general use or for official purposes (usually in quantity); the act of issuing printed materials.
	39. IT (n)	The branch of engineering that deals with the use of computers and telecommunications to retrieve and store and transmit information.
	40. Interact (v)	Act together or towards others or with others.
	41. Interface (n)	A connection between two pieces of electronic equipment, or between a person and a computer.
	42. ICT (abbreviation)	Information and Communication Technology.
K	**43. Keyboard** (n)	Device consisting of a set of keys on a piano or organ or typewriter or computer.
L	**44. LAN** (abbreviation)	Local Area Network.
	45. Language (n)	A systematic means of communicating by the use of sounds or conventional symbols.
M	**46. Manage** (v)	Be in charge of, act on, or dispose of; watch and direct; be successful; achieve a goal.

	47. Manipulate (v)	Treat manually, as with massage, for therapeutic purposes; hold something in one's hands and move it.
	48. Mobile device (n)	A portable computing device such as a smartphone or tablet computer.
	49. Motherboard (n)	One of the most essential parts of a computer system. It holds together many of the crucial components of a computer, including the central processing unit (CPU), memory and connectors for input and output devices.
	50. Monitor (n)	Display produced by a device that takes signals and displays them on a television screen or a computer monitor.
N	**51. Network** (n)	Defined as a group of two or more computer systems linked together.
	52. No problem (expression)	Used to express one's agreement.
O	**53. Output** (n)	Terminal at which a component, circuit or piece of equipment delivers current, voltage or power.
	54. Odd (adj)	Not easily explained.
	55. Office automation system (n)	The varied computer machinery and software used to digitally create, collect, store, manipulate, and relay office information needed for accomplishing basic tasks.
	56. Online service (n)	It refers to any information and services provided over the Internet.
	57. Open Source Software (n)	OSS is any computer software that's distributed with its source code available for modification.
	58. Operating system (OS) (n)	(computer science) Software that controls the execution of computer programs and may provide various services.
	59. Overheat (v)	To become or to make something become too hot.
P	**60. Performance** (n)	Any recognized accomplishment; the act of performing; of doing something successfully; using knowledge as distinguished from merely possessing it.
	61. Printer (n)	Machine for printing text or pictures, especially one linked to a computer.
	62. Process (n)	A particular course of action intended to achieve a result.
	63. Productivity (n)	The quality of being productive or having the power to produce.
	64. Programming (n)	Creating a sequence of instructions to enable the computer to do something.
	65. Provide (v)	Give.
R	**66. Read** (v)	Interpret something that is written or printed; look at, interpret, and say out loud something that is written or printed; interpret the significance of, obtain data from magnetic tapes; subject; interpret something in a certain way.

	67. Record (n)	A compilation of the known facts regarding something or someone. Anything (such as a document or a phonograph record or a photograph) providing permanent evidence of or information about past events.
	68. Record (v)	Register electronically; make a record of; set down in permanent form.
	69. RAM (n)	Random Access Memory The most common computer memory which can be used by programs to perform necessary tasks while the computer is on; an integrated circuit memory chip allows information to be stored or accessed in any order and all storage locations are equally accessible.
	70. Release (n)	A process that liberates or discharges something; the act of liberating someone or something; the act of allowing a fluid to escape.
	71. Repair (n)	The act of putting something in working order again.
	72. Run (v)	Be operating, running or functioning; carry out.
S	**73. Savvy** (adj)	Having common sense and good judgement; intelligent.
	74. Server (n)	(computer science) A computer that provides client stations with access to files and printers as shared resources to a computer network.
	75. Set up (v)	To make a piece of equipment ready for use.
	76. Sockets (n)	One endpoint of a two-way communication link. between two programs running on the network.
	77. Software (n)	(computer science) Written programs or procedures or rules and associated documentation pertaining to the operation of a computer system and that are stored in read/write memory.
	78. Source code(n)	Text listing of commands to be compiled or assembled into an executable computer program.
	79. Steps (n)	The course along which a person has walked or is walking in; a flight of stairs or a flight of steps.
	80. Store (n)	A quantity or supply of something kept for use as needed.
	81. Sort out(v)	Make arrangements; deal with something successfully; organize things.
	82. Support (n)	Any device that bears the weight of another thing; supporting structure that holds up or provides a foundation.
	83. Support (v)	Support materially or financially; give moral or psychological support, aid, or courage to; establish or strengthen as with new evidence or facts; carry the weight of; be behind; approve of; support with evidence or authority or make more certain or confirm.
	84. Switch (n)	A small device, usually pushed up or down with your finger, that controls and turns on or off an electric current.

(T)

85. Take a look at (phrase) Turn your attention to, examine.

86. Take down (v) The removal of a website, web page, or file from the Internet, typically in response to a formal request.

87. Task (n) A specific piece of work required to be done as a duty or for a specific fee; any piece of work that is undertaken or attempted.

88. Technology (n) The practical application of science to commerce or industry; the discipline dealing with the art or science of applying scientific knowledge to practical.

89. That's great (phrase) This is generally used to refer to something great that a person did and it's not used for things.

90. Tech person (n) A "techie"; a person who is very knowledgeable or enthusiastic about technology and especially high technology.

91. Tower (n) A computer tower is a metal chassis that holds all of the computer's components.

92. Turn off(v) To stop a piece of equipment working temporarily by pressing a button or by moving.

(U)

93. User (n) A person who makes use of a thing; someone who uses or employs something; a person who takes drugs; a person who uses something or someone selfishly or unethically.

94. Update (v) Modernize or bring up to date; bring to the latest state of technology; bring up to date; supply with recent information.

95. Upgrade (v) To improve what was old or outdated; rate higher; raise in value or esteem; give a promotion to or assign to a higher position.

96. User-friendly (adj.) Easy to use.

(V)

97. Version (n) An interpretation of a matter from a particular viewpoint.

98. Video card (n) An expansion card that allows the computer to send graphical information to a video display device such as a monitor, TV, or projector.

(W)

99. Word Processing (n) A word processor, or word processing program, it does exactly what the name implies. It processes words. It also processes paragraphs, pages, and entire papers.

100. Wireless (adj) Term describing communication that requires no wires between two communicating points.

Unit I: Programming and database

Goals: Write an opinion from a piece of reading about 'data'. Present a modified dialogue regarding different database needs.

Skills: Listening, reading, speaking and writing.

Project: Finding a solution.

☆ 26 KEY WORDS

Algorithm (n)	Arrow (n)	Database (n)
Task (n)	Print (v)	Issue (n)
Programming (n)	Read (v)	Customer (n)
Technology (n)	input/output (n)	That's great (exp)
Steps (n)	Server (n)	Exactly! (exp)
Function (v)	User (n)	No problem (exp)
Flowchart (n)	Record (n)	Don't worry (exp)
Process (n)	Data (n)	
Decision-making (n)	Take down (v)	

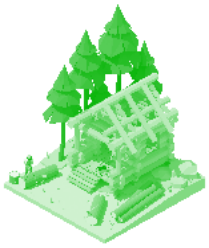
Lesson I: Listening comprehension

BEFORE YOU LISTEN

A. Work with a partner. Look at the pictures and answer the questions:

a) What do you think these situations have in common?

b) What would happen if a person makes a mistake?



Watch a video

B. Watch the video 'Computer Science Basics: Algorithms' and check your answers to Exercise A.

WHILE YOU LISTEN

C. Complete the ideas with the words from the box. Watch the video again and check your answers.

task - algorithms - function - programming - technology

An algorithm is a set of steps used to complete a specific **a)** _____

They are the building blocks for **b)**_____, and they allow things like computers, smartphones, and websites to **c)** _____and make decisions. But in addition to being used by **d)** _____, a lot of things we do on a daily basis are also similar to **e)** _____.

D. Order these steps (1-5) as the algorithm described in the video.

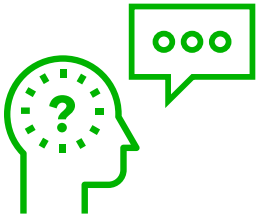
1. _____ Boil a pot of water.
2. _____ Drain the water.
3. _____ Add the spaghetti.
4. _____ Serve with a sauce of your choice.
5. _____ Stir the spaghetti occasionally.

AFTER YOU LISTEN

E. Choose a task or activity. Write in your notebook the different steps involved in the algorithm. Follow the example from Exercise D.

F. Pair up with a classmate. One student will read the algorithm while the other student follows the instructions.

G. Discuss.



Did you complete the task successfully? Why?

How important is it to make clear and precise instructions?

Lesson II: Reading comprehension

BEFORE YOU READ

A. Before you read, match the pictures to the description of the symbols.

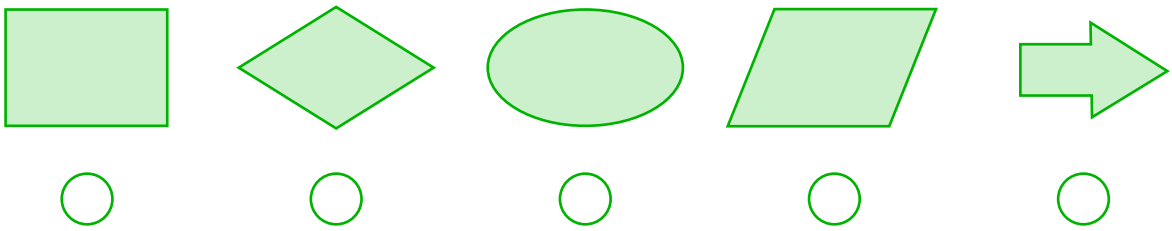
a. This ellipse shows when a flowchart starts and ends._____

b. This diamond shape represents decision-making (true or false)_____

c. The rectangle shows the process._____

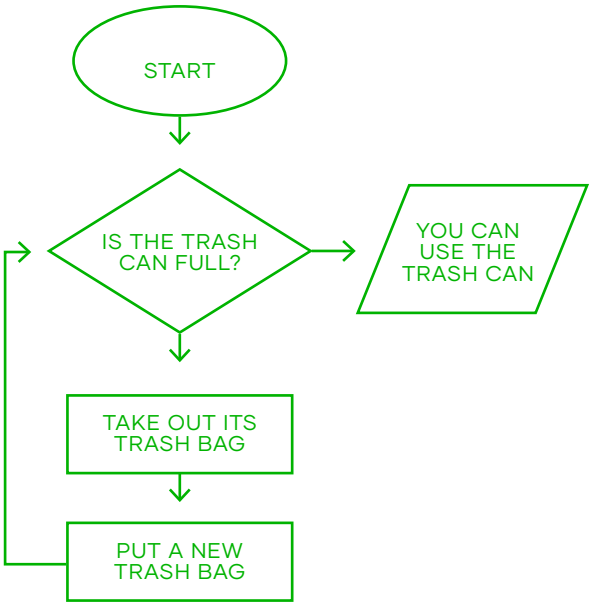
d. The arrows represent the flow of the steps from output to input._____

e. The parallelograms read or print data (input/output) _____.



WHILE YOU READ

B. Look at the flowchart and read the text.



- A flowchart is a graphical representation of an algorithm or a problem-solving process. The visualization of algorithms helps external people understand how your program will work.
- First, we begin with the start's oval. Then, you follow the arrows as you check the true/false diamond statements based on the data.
- The flowchart to the left represents a simplified version of a program for a robotic trash can. This is a visual method to understand the decisions the robot will make.

AFTER YOU READ

C. Mark the ideas true(T) or false (F).

a) **T**____ **F**____ A flowchart only has words

b) **T**____ **F**____ The steps' shapes are important

c) **T**____ **F**____ To read the flowchart you need to follow the arrows

d) **T**____ **F**____ The program will print a message if the trash can is full

e) **T**____ **F**____ The diamond symbol represents a decision-making point

D. Represent a problem-solving situation with a flowchart in pairs.

Remember to include the start and the arrows in the correct direction.
Use at least one diamond for a decision (true/false statement).

E. Present it front of the class.

Lesson III: Writing

PRE-WRITING

A. Work with a partner. Read the title and discuss.

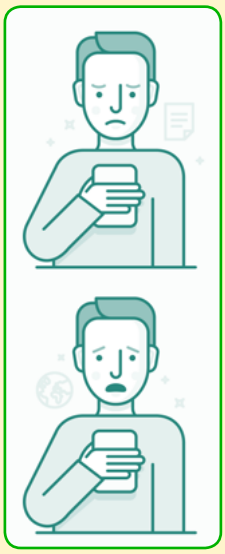
What are the consequences of having personal information online?

A huge database of Facebook users' phone numbers found online

Hundreds of millions of phone numbers linked to Facebook accounts are online. The exposed server contained more tan 419 million records over several databases on users across geographies, including 133 million records on U.S.-based Facebook users, 18 million records of users in the U.K., and another with more than 50 million records on users in Vietnam.

This is the latest security problem involving Facebook data after a series of incidents since the Cambridge Analytica scandal, which involved more than 80 million profiles showing voters' political ideas during the 2016 U.S. presidential election.

Facebook spokesperson Jay Nancarrow said "This data set is old and appears to have information obtained before we removed people's ability to find others using their phone numbers," "The dataset has been taken down", he added.



Adapted from: "A huge database of Facebook users' phone Numbers found online", techcrunch.com on September 4, 2019

B. Read Karen's opinion on a blog. "What's your opinion about the leak?"

In my opinion, data is one of the most important things on today's world.

This is the reason why personal information should be protected from external threats.

I believe the database leak is a big problem because your privacy is compromised.

PRE-WRITING

C. Answer these questions.

1. How important is data for you?

2. What's your opinion on the news?

DRAFTING

D. Write an entry for the blog in Exercise B. Give your opinion using Karen's piece as a model. Use information from Exercise C.

REVISING

E. After you write, work with a classmate. Check their entry.

(a) Is the opinion of the writer clear?

(b) Are punctuation and spelling correct?

PUBLISHING

F. Share your opinion with the class.

Lesson IV: Speaking

WARM UP

A. How can people benefit from databases? Discuss with the class.

Click here to listen

B. Complete the ideas using the expressions from the box. Listen to the audio and check your answers.

Sarah: I'm glad you could help me.
Fred: **a)**_____What's your business?
Sarah: It is an online bookstore.
Fred: **b)** _____ You sell books.
Sarah: Yes, but I am having issues with my spreadsheet. I sent a horror book to the wrong customer!
Fred: **c)** _____. Let's create a database called SarahBookstore.
Sarah: How does that work?
Fred: There will be three tables: customers, orders and books.
Sarah: In books I could access the genres and the author. Am I right?
Fred: **d)**_____

That's great - No problem
Exactly! - Don't worry

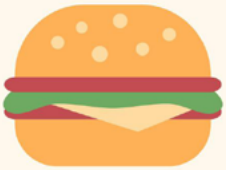
CONTROLLED PRACTICE

C. Work with a partner and practice the dialogue.

FREER PRACTICE

D. Change the underlined words in the dialogue using your own ideas or from the pictures below.

Toy store



Restaurant

Bakery

Pharmacy

Shoe Store

WRAP UP

E. Practice the modified dialogue and present. Complete the information with your classmates' dialogues.

DATABASE'S NAME	3RD TABLE	CATEGORIES
SarahBookstore	Books	genres & author

Project: Finding a Solution

1 LOCAL SHOP ACCOUNTANT	2 PRIMARY SCHOOL TEACHER	3 NATIONAL ANIMAL RESCUE CENTER VET
"My company's electric bills are high. My employees go home and forget to turn off their computers."	"Many students arrive late to school and there is no time to register their names one by one."	"An animal rescue center is opening next week and the vets need a way to have easy access to the animals' information."

Now you know the basics of programming and database. It is time to start proposing solutions to everyday problems.

A. Work in groups of four. Read the information above and discuss these situations. As a group, identify the problem in each picture.

Picture 1

Picture 2

Picture 3

B. As a group, choose one of the situations above and think of a possible solution. Answer to these questions.

a) Why did you choose this issue?

b) How many possible solutions to the same problem can you think of?

C. Describe your final solution including aspects from the previous discussion. Use images to make your point as clear as possible.

- We have the challenge of solving an issue.
- After talking, our group chose the problem of ...
- We decided to solve this situation because...
- In our opinion, a possible answer is...
- The following algorithm / flowchart / database representation explains it.

D. Make a poster about your solution. Add the visual representation of the solution.

E. Present in front of the class.

Unit II: Installation and configuration of computer equipment

Goals: Present a modified dialogue taking place in a tech repair. Create a computer guidebook based on the idea of an ideal computer.

Skills: Listening, reading, speaking and writing.

Project: Computer guidebook.

☆ 33 KEY WORDS

Software (n)	Case (n)	Odd (adj)
Hardware (n)	OS (n)	Sort out (v)
Components (n)	Apps (n)	Issue (n)
Operating system(n)	Interact (v)	Run (v)
Hard disk (n)	Install (v)	Overheat (v)
CPU (n)	Compatible (adj)	Savvy (adj)
RAM (n)	Language (n)	Advice (n)
Keyboard (n)	Mobile device (n)	Advise (v)
Motherboard (n)	Take a look (v)	Broken (adj)
Monitor (n)	Repair (v)	Fix (v)
Video card (n)	Appreciate (v)	Features (n)

Lesson I: Reading comprehension

BEFORE YOU READ

A. Before you read, match the words in the box to the definitions below. There are 2 extra terms.

Case - Hard disk - CPU - Monitor - RAM - Keyboard
Motherboard - Video card

1. _____ The main circuit board that coordinates the components.
2. _____ The part of a computer that contains a screen.
3. _____ Equipment with keys that puts information into the computer.
4. _____ Where programs are put into while you are using them.
5. _____ A container or cover for most of the components of a personal computer.
6. _____ A magnetic disk used to store computer data permanently.

B. Look at the picture from the text. Share.

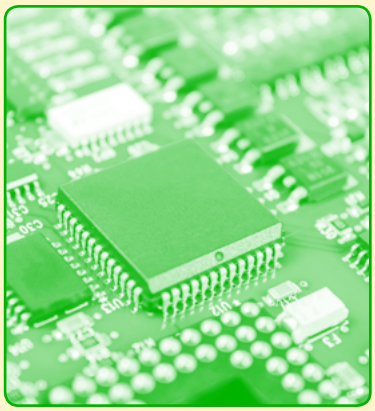
1. What do you think the text is about?

2. Are you familiar with computer architecture terms?

WHILE YOU READ

C. Read the text.

COMPLEMENTARY CONCEPTS



1. On the one hand, we have the **components** that make a device physically work. These elements can be divided into two categories: internal parts and external parts. The internal ones involve those elements inside the tower that store or process what a program or operating system defines, while the external describe the components externally connected to the computer to control input or output. All previous definitions refer to **hardware.**
2. On the other hand, we have **software.** It tells the hardware what to do and how to do it. We could also say software refers to computer programs, apps or **operating systems (OS)** that run on hardware. Hardware and software are complementary concepts. You can only interact with an app because you have a mobile phone, but having a mobile phone means nothing if the operating system is absent.

AFTER YOU READ

D. Answer these questions.

1. What is the main difference between software and hardware?

2. What are the categories of components in hardware?

3. What examples of pieces of software can you find in the text?

4. Which is more important: software or hardware? Why?

AFTER YOU READ

E. Work with a partner. Create a small poster that shows your understanding of a topic from the text. Look at the samples.

1. Focus on one of your answers from Exercise D.
2. Use drawings or pictures as examples.
3. Be as creative as possible.
4. Use the table below to check the quality of your work.

Did I use....	✓
a title or question?	
a brief explanation/definition?	
pictures or drawings as visual support?	
correct spelling of words?	
capital letters when needed?	

F. Place your work in the classroom. Take your time to check your classmates' work.

Lesson II: Listening comprehension

BEFORE YOU LISTEN

A. Discuss with a classmate.

Have you got a favorite operating system?

WHILE YOU LISTEN

Watch a video

B. Watch the video "Computer basics: Understanding Operating Systems" and listen to the speaker. What OS are not mentioned? Circle the names.

1. **Ubuntu**
2. **Mac**
3. **Windows**
4. **iOS**
5. **Linux**
6. **Android**

C. Listen again. Mark the ideas true (T) or false (F) according to the video.

1. **T**____ **F**____ People can directly communicate with their computer.
2. **T**____ **F**____ The OS is a program that helps you interact with a computer.
3. **T**____ **F**____ The OS is a complete software on its own.
4. **T**____ **F**____ You need to pay a special price to install Windows on a new computer.
5. **T**____ **F**____ Mobile phones also need an OS.
6. **T**____ **F**____ All pieces of software or apps are compatible with all the existing OS.

WHILE YOU LISTEN

Watch a video

D. Watch the video "Most popular mobile OS 1999-2019". Look at the popularity of the different OS through the years. Answer the questions.

1. Is your mobile's OS in the video? Which one?

2. Why do you think some operating systems lost their popularity?

3. Why do you think Android is so popular?

AFTER YOU LISTEN

E. Work in teams of 3 or 4 students. Choose one OS and write a short text convincing your classmates to get it. You can create a song or give facts about the details.

Example: This is the fastest OS on the market.
70% of people prefer this OS

F. Present in front of the class. Read or sing your text. Then, select the most convincing team and explain why.

Lesson III: Speaking. Technical repair

WARM UP

A. Have you been to a technical repair center? Share your experiences with the rest of the class.

Click here to listen

B. Complete the dialogue below with the words from the box. Listen to the audio and check.

take - repair - appreciate - odd - issue -sorted

Customer: Good morning.
Technician: Welcome to our **a)**_____center. How can I help you?
Customer: There is something **b)**_____going on with my laptop.
Technician: What do you mean?
Customer: It is not playing music!
Technician: I see. May I **c)**_____ a look?
Customer: Go ahead, please.
Technician: I found the **d)**_____.. It is a hardware problem.
Customer: What should I do?
Technician: You should change the speaker.
Customer: Can you do it?
Technician: Sure. We'll have this **e)** _____ out in no time.
Customer: Oh, thank you! I really **f)**_____ it!

CONTROLLED PRACTICE

C. Work with a classmate. Practice the dialogue.

FREER PRACTICE

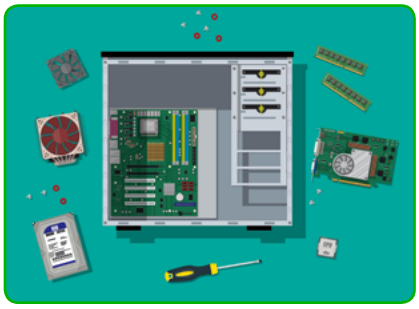
D. Work with a classmate. Change the underlined words using your own ideas or from the pictures below. Practice.

The computer is not running a brand

The CPU is overheating - New game

Install a better graphics card

Install a CPU cooler fan



WRAP UP

E. Act out in front of the class.

Lesson IV: Writing

Contact info:

Name: Henry Collins

Email: henry@openlibrary.com

Subject: Art student computer

Good evening,

I'm looking for a new computer for my daughter. I am not particularly savvy at technology, so I was hoping you could give me some advice.

It's Helen's first year at the Digital Art program. I am unsure about the details, but she spends hours editing photos. She always complains about how slow our computer is at home. I believe that the only problem of our computer is that the CD slot is broken.

Do I need to buy a new computer, or can I fix the one at home? If my daughter needs a new computer, what are the most important features I should be asking about?

Regards,

Henry Collins

PRE-WRITING

A. Read Henry's email about computers. Answer the questions.

1. What does Henry want?

2. What are the technical needs?

3. What are the pros/cons of repairing the old computer or buying a new computer?

DRAFTING

B. Write an email to Henry answering his questions. Use information from the text and include the vocabulary you've learnt in past lessons.

REVISING

C. Use the chart below to check if your email is complete.

Did I	✔
add my contact info?	
include hardware/software terms?	
use information from the email to create an answer?	
write a greeting and closing sounds better in terms of parts of an email/letter?	
use correct spelling and punctuation?	
share my writing with a classmate for them to check?	

Project: Building a computer and its OS

Now that you understand the concepts of hardware, software and operating system, it is time for you to create a new computer

A. Make a group of 4 people. Talk about what your ideal computer would be like.

1. Is it a desktop or a laptop?

2. What OS does it have?

3. What components are included?

B. Create a guidebook giving details about your ideal computer. The presentation should have:

1. A cover page of the guidebook.
2. Pictures showing the names of the different internal or external components.
3. A short description of the OS.
4. A list of apps/pieces of software you can use.
5. A brief explanation of how to take care of your computer for avoiding damage to the computer.

C. Practice the presentation with your group.

D. Present your digital guidebook to the class.

Unit III: User support and productivity

Goals: Talk about the importance of communication in user support situations based on a video. Create a comic exemplifying the benefits of an office automation system based on a text.

Skills: Listening, reading, speaking and writing.

Project: Students supporting students.

☆ 25 KEY WORDS

Support (n)	Accomplish (v)	Backup (n)
Support (v)	Collect (v)	Install (v)
IT (n)	Store (v)	Assistance (n)
End-users (n)	Manage (v)	Tips (n)
Communication (n)	Manipulate (v)	Increase (v)
Back up (v)	User-friendly (adj)	Online services (n)
Office automation	Tech-person (n)	
System (n)	Compatible (adj)	
Task (n)	Productivity (n)	
Word processing (n)	Update (v)	

Lesson I: Listening comprehension

BEFORE YOU LISTEN

A. Answer these questions with a partner.

a) How often do you help people that struggle with technology?

_____

_____

_____

b) What is important when you support people?

_____

_____

Watch a video

B. Watch the video 'What does support mean?' Check your answers from Exercise A.

WHILE YOU LISTEN

C. Mark the statements true (T) or false (F) in the space provided.

1. **T**_____ **F**_____ IT support specialists are sincere with people.
2. **T**_____ **F**_____ Solutions to problems are kept private from users.
3. **T**_____ **F**_____ IT support never anticipates issues.
4. **T**_____ **F**_____ IT support specialists must not read between the lines.
5. **T**_____ **F**_____ Communication is essential when supporting end-users.

D. Listen again and number these statements as you hear them in the audio (1-6).

1. _____ Ensuring proper functionality of resources.
2. _____ Support in its essence is honesty with the customer.
3. _____ Sometimes it means anticipating potential issues with users.
4. _____ Backing up our promises on the benefits of technology.
5. _____ Support is a conversation, not a transaction.
6. _____ Sharing your knowledge.

AFTER YOU LISTEN

E. Work with a partner. Talk about the importance of communication skills in the field of technology. Write down a list of actions or attitudes you need to pay attention to when helping others.

Example:

Be kind to people with negative technology experiences.

Always listen to the user.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Lesson II: Reading comprehension

BEFORE YOU READ

A. Before you read, match the words to their synonyms

1	Accomplish	a	_____	administer
2	collect	b	_____	shape
3	store	c	_____	reach
4	manipulate	d	_____	keep
5	manage	e	_____	gather

WHAT EXACTLY IS AN OFFICE AUTOMATION SYSTEM?

An office automation system is an integrated process that consists of hardware, software, and networking, all working together to accomplish different office tasks, such as inventory management, accounting, email, and word processing. The system works by collecting, storing, manipulating, and passing on office information and data digitally, to accomplish basic goals.

Perhaps, the most common form of an office automation system could be the Microsoft Office Suite which consists of almost all types of document processing tools such as word processing, spreadsheets, PowerPoint presentation, database managing application, etc. However, this is the most simple function-related work domain of an OAS and it was more popular in the 90s.

Today OAS has become sophisticated and has integrated many tasks of a workplace to establish itself as a bigger solution for problems related to every aspect like inter-office communication, data storage, and management, etc.

Adapted and taken from:
https://www.quickfms.com/blog/office-automation-system-tips-startups on December 20th, 2019.

WHILE YOU READ

B. Fill in the blanks with the information from the text. Compare your answers with a partner.

1. An Office Automated System combines _____, _____ & _____.
2. _____ is a common office task that consists of the creation, storage and manipulation of text on a computer.
3. Microsoft Office Suite is a common example of an _____.
4. Document processing tools were popular during _____.
5. An OAS in an office today will offer_____for diverse problems.

AFTER YOU READ

C. Discuss with a partner. How do office automation systems impact productivity?

D. With your partner, create a comic strip showing how people solved work-related tasks before and after office automation systems.

For example, you can show a person with many folders and then same person using a database in different panels.

Lesson III: Speaking.

WARM UP

A. What do you think the most useful pieces of software are? Discuss with the class.

Click here to listen

B. Complete the dialogue below with the words from the box. Listen to the audio and check your answers.

user-friendly - compatible - tech person - productivity
update - backup - install

Charles: Hey! I am the new IT support for the building. My name is Charles.
Fred: Nice to meet you. I am not a **(1)** _____ myself, to be honest.
Charles: That's ok. I am sure I can help you raise your **(2)** _____
Fred: I have to **(3)** _____ information from customers, but sometimes some contacts are gone! What do you suggest?
Sarah: Ok, you need a software that can **(4)** _____ information.
Fred: That'd be brilliant. Can you **(5)** _____ one?
Sarah: Absolutely. I have one in mind.
Fred: Thank you! Is that software **(6)** _____?
Sarah: Let's check if it is **(7)**_____ with your operating system.
Fred: I appreciate your help and patience.

CONTROLLED PRACTICE

C. Work with a partner and practice the dialogue.

FREER PRACTICE

D. Change the underlined words in the previous dialogue using your own ideas or from the pictures below.

Meet my clients

There is not time for long distances

Take notes during a meeting

I take too much time rewriting my notes

Work from home

I have important files at the office

WRAP UP

E. Practice the new dialogue with your partner. Then, present it in front of the class.

Lesson IV: Writing

BEFORE YOU READ

A. Talk to a partner. Have you searched for answers to your computer issues? What kind?

COMPUTER HOPE: FREE COMPUTER HELP SINCE 1998

Computer Hope is a website that offers "free support and online services that allow any user to learn more about their computer and find technical assistance". The team offers tips and tricks that users can learn to increase their productivity and have a better computer experience.
Below you can read an extract from an article titled 'How can I increase my productivity on a computer?'.

USE SHORTCUT KEYS

Use of shortcut keys can help you save time by keeping your hands on the keyboard instead of having to navigate a menu to select the action every time it is needed. The more an action is used, the more using the shortcut key for it can help improve productivity. For instance, if you copy text often in Windows, using the Ctrl+C shortcut can save you from needing to use the right-click menu or the edit menu to perform the copy.

Adapted from Computer Hope,'How can I increase my productivity on a computer?' in December, 2019, from https://computerhope.com/issues/ch001511.htm

B. Work with a partner. Answer these questions.

1. Did you find the shortcut keys section useful?

2. If you were the writer for the website, what tips would you give?

3. Is there a specific audience for your tips?

DRAFTING

C. The website wants to add more tips to its article. With a partner, write a short paragraph (50 words approx.) giving tips about specific uses of technology. Use the answers from activity B to guide your work.

REVISING

D. Check your work using the table below.

Did I ....?	✔
include a title?	
write at least 50 words?	
focus on a specific topic?	
use correct spelling and punctuation?	

PUBLISHING

E. After you finish, type your work and give it to the teacher. All paragraphs will be printed and placed on a wall of the classroom.

Project: Students supporting students

A. Find a person in the school who requires help with any technological device you know. Gather the information and show the process in a 'students support students' fair.

B. Interview your school community and find out their specific needs in terms of technology. Register the process in the project's guided page. (Check extra materials).

1. _____
2. _____
3. _____
4. _____
5. _____

C. Choose one of the interviewees and help them raise their productivity or find a solution to a computer-related problem.

D. Make a before/after presentation. Include the details from activity B on a poster. Add all the important steps and think about your stand for the class' fair.

E. Present the process in the class fair and reflect briefly on helping the community where we study or live. The teacher will invite other classmates to the room to visit the stands.

Unit IV: Operating Systems

Goals: Speak about the benefits and characteristics of open and closed source software/OS based on a video. Create a tutorial on how to install an operating system.

Skills: Listening, reading, speaking and writing.

Project: OS Recommendation.

☆ 24 KEY WORDS

Open source software (n)	Support (v)	Brand new (adj)
Closed source software (n)	Version (n)	Restart (v)
Free (adj)	Release (v)	Insert (v)
Performance (n)	Run (v)	Hold (v)
Source code (n)	Vulnerable (adj)	Flash drive (n)
Access (n)	Discontinue (v)	Turn off (v)
Upgrade (v)	Survey (v)	
Provide (v)	Survey (n)	
	Satisfied (adj)	
	Experience (n)	

Lesson I: Listening

BEFORE YOU LISTEN

A. Talk to your partner.

a) Do you know what an open source software is? If not, what do you think it refers to?

_____

_____

b) Do you know any examples of it?

_____

_____

Watch a video ▷

B. Watch the video 'Open source vs Closed Source software'. Listen carefully and check your answers in Exercise A.

WHILE YOU LISTEN

C. Fill in the blanks with the words you hear from the video. Listen again and check your answers.

Almost every piece of computer software is created using **(1)**_____ or the technical blueprint that tells the program how to function. When creators release their finished product to the public, they must decide whether to make their software open source or **(2)** _____.

With closed source software, also known as proprietary software, the public is not given **(3)**_____ to the source code, so they can't see or modify it. But with open source software, the source-code is publicly available and **(4)**_____ can see or modify that code if they desire.

Keep in mind that you don't have to read or change any code in order to use an **(5)** _____ product.

The vast majority of apps, games and other popular software are closed source.However, there are open source options for many types of **(6)**_____.

AFTER YOU LISTEN

D. Read the statements below and classify them into Open source (OP) or Closed source (CS) features. Check with a classmate.

1. _____ Public access to the source code is restricted.
2. _____ It is harder to find technical support.
3. _____ Most of the apps or games fall in this category.
4. _____ Users can help increase the performance of the software.
5. _____ The creator is in charge of spotting bugs.
6. _____ Software is more likely to be free.

E. Discuss with your class

1. Why do you think open source operating systems are not well known?

2. Should all operating systems be open source?

3. As a programmer, what type of operating system would you use? Open or closed source?

Lesson II: Reading comprehension

BEFORE YOU READ

A. Answer these questions with a partner.

(a) When should you upgrade an operating system?

(b) Would you upgrade your OS every time there is a new version?

(c) Would you wait some years before upgrading an OS?

WINDOWS 7 SUPPORT ENDED ON JANUARY 14, 2020

Microsoft made a commitment to **1. provide** 10 years of product support for Windows 7 when it was **2. released** on October 22, 2009. This 10-year period has now ended, and Microsoft has **3. discontinued** Windows 7 support so that we can focus our investment on **4. supporting** newer technologies that provide new experiences. The specific end of support day for Windows 7 was January 14, 2020. Technical assistance and software updates from Windows Update that help protect your PC are no longer available for the product. Microsoft strongly recommends that you move to Windows 10 to avoid a situation where you need service or support that is no longer available.

Frequently Asked Questions

What does end of support mean for me?

After January 14, 2020, PCs **5. running** Windows 7 no longer receive security updates. Therefore, it's important that you **6. upgrade** to a modern operating system such as Windows 10, which can provide the latest security updates to help keep you and your data safer. In addition, Microsoft customer service is no longer available to provide Windows 7 technical support. Related services for Windows 7 are also being discontinued over time. For example, certain games such as Internet Backgammon and Internet Checkers as well as the Electronic Program Guide for Windows Media Center are scheduled to be discontinued in January 2020.

What happens if I continue to use Windows 7?

If you continue to use Windows 7 after support has ended, your PC will still work, but it will be more vulnerable to security risks and viruses. Your PC will continue to start and run, but it will no longer receive software updates, including security updates from Microsoft.

Adapted from Windows Support " Windows 7 support ended on January 14, 2020" https://support.microsoft.com/en-us/help/4057281/windows-7-support-ended-on-january-14-2020 visited in January, 2020

WHILE YOU READ

B. Write the number of the action in bold from the text next to its synonym.

_____ Backing
_____ Supply
_____ Use
_____ Ceased
_____ Advance
_____ Distributed

C. Read again, mark these statements true (T) or false (F).

1. **T**_____ **F**_____ Microsoft provided Windows 7 for less than 10 years.
2. **T**_____ **F**_____ Technical assistance for Windows 7 will keep working after it is discontinued.
3. **T**_____ **F**_____ I could work using Windows 7 after January 2020 if I wanted to.
4. **T**_____ **F**_____ My PC could be vulnerable to viruses if I use a discontinued OS.
5. **T**_____ **F**_____ There will be a newer version of Internet Checkers in January 2020.

AFTER YOU READ

D. Work with a classmate. Imagine you are asked to add more details to the frequently asked questions (FAQ) section of the website. Write at least 3 more possible questions that the article might bring.

Example: How do I know if the newer version is compatible with my computer?

1. _____
2. _____
3. _____
4. _____
5. _____

E. Share your questions with the whole class and reflect.

1. What are the best FAQ questions from your class?

2. Why are they so important?

Lesson III: Speaking

WARM UP

A. Make a group of 4 classmates. Ask the following questions.

a) Do you have a computer?

b) How often do you use your computer each day?

c) What operating system does your computer run?

CONTROLLED PRACTICE

B. Create an 8-question survey related to operating systems. The questions from Exercise A are mandatory, and the rest can be either created by you or taken from the examples below.

1. From 1 to 10, how satisfied are you with your operating system?
2. If you could change or upgrade your operating system, which one would you choose?
3. What operating systems do you have experience with?
4. What is the safest operating system according to you?
5. What operating system would you recommend to your classmates?
6. Would you use an open-source operating system? Which one?

FREER PRACTICE

C. Each member will survey at least 5 different people and write down their answers in a table.

NAME	Q1	Q2	Q3	Q4	Q5
BASTIÁN	YES	3 HOURS	UBUNTU	7	

WRAP UP

D. Check the answers. Choose one of the questions (except n°1) and represent the answers in a poster using a column graph.

E. Share your findings with the class. Volunteer teams will present their poster.

Lesson IV: Writing

PRE-WRITING

A. Pair up with a classmate. Discuss.

a) Have you installed an operating system? Which one?

B. Read the following text and circle the unknown words. Then, look them up in a dictionary.

HOW TO INSTALL AN OPERATING SYSTEM ON A BRAND-NEW COMPUTER

This wikiHow teaches you how to install a computer operating system on a new, blank computer. You can do this on a Windows computer by inserting an operating system installation disk or drive and then starting the computer from the disk or drive. Brand new Mac computers will always come with an operating system installed, but you can reinstall your Mac's default operating system by using Internet Recovery if your Mac's hard drive is blank.

Method 1: On Windows

1. Insert the installation disk or flash drive. To install a new operating system on Windows, you must have the operating system's install tool on a DVD or flash drive, and the disk or flash drive must be inserted into your computer.

2. Restart your computer. Press and hold your computer's Power button to turn it off, wait for a few seconds, and then press the Power button again to turn the computer back on.

Adapted from 'How to Install an Operating System on a brand-new computer' in January 2020, from https://www.wikihow.com/Install-an-Operating-System-on-a-Brand-New-Computer

C. Discuss with your partner.

a) What elements from the tutorial help you understand the instructions?

b) Is there any important information the user must have before starting the installation?

c) What are the next steps that the user should take?

DRAFTING

D. On a computer, write a tutorial on how to install an operating system. Use the answers from Exercise B in order to organize your ideas. Remember to be clear and concise with the language and include pictures as seen in the example.

REVISING

E. Share your work with a different team. Check other tutorials using the table below in order to suggest changes.

Did the authors...	✔
write the title of the tutorial?	
include pictures for the different steps?	
number the steps?	
use clear language?	
check punctuation and spelling?	

EDITING AND PUBLISHING

F. Read the suggestions and edit if necessary. Share your work with the teacher.

Project: OS recommendation

Many people watch video tutorials or reviews in order to decide what they want. This project aims at sharing your knowledge on operating systems.

Watch a video

A. Watch the video "macOs Catalina Hands On: What's New?". Make a group of 4 and discuss.

1. What is the purpose of the video?

2. What did the creator of the video include that helped understand the ideas?

3. If you were to make a review video, what operating system would you choose?

B. Create a 2-minute video review in which you recommend an operating system.

To begin with, make a draft of what you want to include or say in the video. Give it to the teacher at the end of the lesson.
The video should include:

1. A title at the beginning of the video.
2. A short description of the OS.
3. Pictures or recordings of the interface of the operating system while you use it.
4. Transitions between pictures/recordings.
5. A final comment recommending the operating system.
6. Credits at the end of the video including team members' names, class & school name.

C. Record the video and edit it.

D. Upload your review and share the link with your teacher.

Vocabulary Extension: Debugging

BEFORE YOU LISTEN

Click here to listen

A. Complete the sentences with the ideas from the box. Listen to the audio again and check.

produces - solve - debug - behave - spot - removing

Debugging is the process of spotting and **1)**_____ errors out of a program. Bugs cause programs to crash or to **2)** _____ unexpectedly. In order to avoid those problems, programmers **3)**_____ their code to check if the program runs correctly or to understand why the code **4)** _____ incorrect results. Let's think of an example: You got distracted while cooking your lunch. The food looked delicious, but the taste was unpleasant. How can you **5)**_____ this issue? You need to go back to the recipe, follow the steps and **6)** _____ the bug. A spotted bug is a fixed problem.

AFTER YOU LISTEN

B. Match the words from Exercise **A** to their synonyms.

1	Produce	a	_____ Find
2	Behave	b	_____ Develop
3	Remove	c	_____ Fix
4	Debug	d	_____ Act
5	Spot	e	_____ Eliminate

C. Find the bugs in these algorithms. Circle the bugs and then write the correct steps in your notebook.

HOW TO WATER YOUR GARDEN

1. Take a watering can.
2. Check if it is full of water.
3. If it needs water, put more water into it. If it is full of water, continue.
4. Go to the garden.
5. Stand far away from the plants.
6. Water the green plants.
7. Check if all plants were watered.
8. Put away the watering can.
9. Go back to the garden.

D. Check your debugging with a classmate and discuss.

Did I ....?	✔
check the order of the steps?	
read each statement carefully?	

Appendix

UNIT I : PROGRAMMING AND DATABASE PROJECT

TEAM MEMBERS : _____

DATE: _____ **PROBLEM CHOSEN:** _____

CRITERIA	EXCELLENT 4 PTS	PROFICIENT 3 PT	SATISFACTORY 2 PTS	UNSATISFACTORY 1 PT
Problem-solving	There is a clear solution to the chosen problem.	There is a clear solution to the problem, but it is incomplete.	The possible solution does not fix the problem completely.	There is no clear solution to the chosen problem. There is no consensus.
Visual support	The visual support was helpful.	The visual support has minor issues.	The visual support has major issues.	There is no visual support whatsoever.
Volume	The voice of all the speakers is loud and clear.	The voice of most of the speakers is loud and clear.	The voice of at least one of the members is hard to hear	The voice of all the members is low. It's hard to listen to.
Comprehension	Most of the ideas are clearly stated.	Most of the ideas are clear but there are minor issues.	There are some clear ideas, but parts of the text are not clear.	No ideas are comprehensible. The text is not clear at all.
Mechanics	The ideas are well written, capitalization is correct and there are no spelling issues.	The ideas are mostly well written, but capitalization and spelling have minor issues.	The ideas are barely well written, and there are many capitalization and spelling issues.	The text does not follow basic rules of punctuation and capitalization. The text has many spelling issues.
Teamwork & classwork	All students work equally to finish the task during the class.	Most of the students work to finish the task during the class.	Some of the students work on the task. One or two members don't work.	Only one of the members stays on task during the class. The rest of the team is not contributing.

Total score: _____ **out of 24 pts.** **Overall grade:** _____

Comments:

UNIT II : INSTALLATION AND CONFIGURATION OF COMPUTER EQUIPMENT

TEAM MEMBERS : _____

DATE: _____ **NAME OF THE COMPUTER:** _____

CRITERIA	EXCELLENT 4 PTS	PROFICIENT 3 PT	SATISFACTORY 2 PTS	UNSATISFACTORY 1 PT
Structure	The guidebook has all the aspects required.	There is one missing aspect in the guidebook.	The guidebook lacks two aspects from the instructions.	The guidebook lacks more than two aspects from the instructions.
Creativity and organization	The visual support is creative and well organized.	The visual support is creative but a bit disorganized.	The visual support lacks some creativity, but it is organized.	The visual support lacks creativity and organization.
Volume	The voice of all the speakers is loud and clear.	The voice of most of the speakers is loud and clear.	The voice is hard to hear of at least one of the members.	The voice of all the members is low. It's hard to listen to.
Comprehension	Most of the ideas are clearly stated.	Most of the ideas are clear but there are minor issues.	There are some clear ideas, but parts of the text are not clear.	No ideas are comprehensible. The text is not clear at all.
Mechanics	The ideas are well written, capitalization is correct and there are no spelling issues.	The ideas are mostly well written, but capitalization and spelling have minor issues.	The ideas are barely well written, and there are many capitalization and spelling issues.	The text does not follow basic rules of punctuation and capitalization. The text has many spelling issues.
Teamwork & classwork	All students work equally to finish the task during the class.	Most of the students work to finish the task during the class.	Some of the students work on the task. One or two members don't work.	Only one of the members stays on task during the class. The rest of the team is not contributing.

Total score: _____ **out of 24 pts.** **Overall grade:** _____

Comments:

UNIT III : USER SUPPORT & PRODUCTIVITY

TEAM MEMBERS : _____

DATE: _____ **NAME OF THE COMPUTER:** _____

CRITERIA	EXCELLENT 4 PTS	PROFICIENT 3 PT	SATISFACTORY 2 PTS	UNSATISFACTORY 1 PT
Needs	The data collection process clearly identified the specific needs.	The data collection process identified the general needs.	The data collection process roughly identified general needs.	The data collection process was biased and lacked an identification of needs.
Support	The team provided a complete support to the user.	The team provided a positive support to the user.	The team gives basic support to the user.	The team gives poor help to the user.
Volume	The voice of all the speakers is loud and clear.	The voice of most of the speakers is loud and clear.	The voice is hard to hear of at least one of the members.	The voice of all the members is low. It's hard to listen to.
Comprehension	Most of the ideas are clearly stated.	Most of the ideas are clear but there are minor issues.	There are some clear ideas, but parts of the text are not clear.	No ideas are comprehensible. The text is not clear at all.
Creativity	The stand is well decorated and shows all the steps in the project.	The stand is well decorated and shows the main steps in the project.	The stand is decorated and shows some of the steps in the project.	The stand is barely decorated and lacks many elements from the project.
Teamwork & classwork	All students work equally to finish the task during the class.	Most of the students work to finish the task during the class.	Some of the students work on the task. One or two members don't work.	Only one of the members stays on task during the class. The rest of the team is not contributing.

Total score: _____ **out of 24 pts.** **Overall grade:** _____

Comments:

UNIT IV : OPERATING SYSTEMS

TEAM MEMBERS : _____

DATE: _____ **VIDEO'S TITLE:** _____

CRITERIA	EXCELLENT 4 PTS	PROFICIENT 3 PT	SATISFACTORY 2 PTS	UNSATISFACTORY 1 PT
Process	The draft of the script is delivered on the first class.	The draft of the video is delivered on the second class.	The draft of the video is delivered after uploading the video.	The team did not hand in the script of the video.
Structure	The video has all the aspects required.	There is one missing aspect in the video.	The video lacks two aspects from the instructions.	The video lacks more than two aspects from the instruction.
Volume & audio	The audio is clear & the voice of all the speakers is loud and clear.	The audio is clear & the voice of most of the speakers is loud enough.	The audio has issues and/or the voice is hard to hear of at least one of the members.	The voice of all the members is low and/or audio is not working.
Comprehension	Most of the ideas are clearly stated.	Most of the ideas are clear but there are minor issues.	There are some clear ideas, but parts of the text are not clear.	No ideas are comprehensible. The text is not clear at all.
Creativity	The video is creative and harmonic.	The video is creative & harmonic with minor inconveniences.	The video shows some creativity, but it is not harmonic.	The video lacks creativity in terms of the format.
Teamwork & classwork	All students work equally to finish the task during the class.	Most of the students work to finish the task during the class.	Some of the students work on the task. One or two members don't work.	Only one of the members stays on task during the class. The rest of the team is not contributing.

Total score: _____ **out of 24 pts.** **Overall grade:** _____

Comments:

Project 1 Peer evaluation **Our team:** **Assessed team:**	
Questions	✗ or ✓
Did the solution solve the pro-blem?	
Did the poster include pictures and descriptions?	
Did all team members speak loud enough?	
Did all team members work equally?	

Project 1 Peer evaluation **Our team:** **Assessed team:**	
Questions	✗ or ✓
Did the solution solve the pro-blem?	
Did the poster include pictures and descriptions?	
Did all team members speak loud enough?	
Did all team members work equally?	

Project 1 Peer evaluation **Our team:** **Assessed team:**	
Questions	✗ or ✓
Did the solution solve the pro-blem?	
Did the poster include pictures and descriptions?	
Did all team members speak loud enough?	
Did all team members work equally?	

Project 1 Peer evaluation **Our team:** **Assessed team:**	
Questions	✗ or ✓
Did the solution solve the problem?	
Did the poster include pictures and descriptions?	
Did all team members speak loud enough?	
Did all team members work equally?	

Project 1 Peer evaluation **Our team:** **Assessed team:**	
Questions	✗ or ✓
Did the guidebook include all the needed aspects?	
Did the guidebook look creative and appealing?	
Did all team members speak loud enough?	
Did all team members work equally?	

Project 1 Peer evaluation **Our team:** **Assessed team:**	
Questions	✗ or ✓
Did the guidebook include all the needed aspects?	
Did the guidebook look creative and appealing?	
Did all team members speak loud enough?	
Did all team members work equally?	

Project 1 Peer evaluation **Our team:** **Assessed team:**	
Questions	✗ or ✓
Did the guidebook include all the needed aspects?	
Did the guidebook look creative and appealing?	
Did all team members speak loud enough?	
Did all team members work equally?	

Project 1 Peer evaluation **Our team:** **Assessed team:**	
Questions	✗ or ✓
Did the guidebook include all the needed aspects?	
Did the guidebook look creative and appealing?	
Did all team members speak loud enough?	
Did all team members work equally?	

Project 2 Peer evaluation **Our team:** **Assessed team:**	
Questions	✗ or ✓
Did the guidebook include all the needed aspects?	
Did the guidebook look creative and appealing?	
Did all team members speak loud enough?	
Did all team members work equally?	

Project 2 Peer evaluation **Our team:** **Assessed team:**	
Questions	✗ or ✓
Did the guidebook include all the needed aspects?	
Did the guidebook look creative and appealing?	
Did all team members speak loud enough?	
Did all team members work equally?	

Project 3 Peer evaluation **Our team:** **Assessed team:**	
Questions	✗ or ✓
Did the team identify the needs of the user?	
Did the team provide an efficient solution to the user?	
Did the team decorate the stand of the presentation?	
Did all team members work equally?	

Project 3 Peer evaluation **Our team:** **Assessed team:**	
Questions	✗ or ✓
Did the team identify the needs of the user?	
Did the team provide an efficient solution to the user?	
Did the team decorate the stand of the presentation?	
Did all team members work equally?	

Project 3 Peer evaluation **Our team:** **Assessed team:**	
Questions	✗ or ✓
Did the team identify the needs of the user?	
Did the team provide an efficient solution to the user?	
Did the team decorate the stand of the presentation?	
Did all team members work equally?	

Project 3 Peer evaluation **Our team:** **Assessed team:**	
Questions	✗ or ✓
Did the team identify the needs of the user?	
Did the team provide an efficient solution to the user?	
Did the team decorate the stand of the presentation?	
Did all team members work equally?	

Project 4 Peer evaluation **Our team:** **Assessed team:**	
Questions	✗ or ✓
Did the team include all the parts needed?	
Did the team talk about the operating system clearly?	
Did the team make a creative video?	
Did all team members work equally?	

Project 4 Peer evaluation **Our team:** **Assessed team:**	
Questions	✗ or ✓
Did the team include all the parts needed?	
Did the team talk about the operating system clearly?	
Did the team make a creative video?	
Did all team members work equally?	

Project 4 Peer evaluation **Our team:** **Assessed team:**	
Questions	✗ or ✓
Did the team include all the parts needed?	
Did the team talk about the operating system clearly?	
Did the team make a creative video?	
Did all team members work equally?	

Project 4 Peer evaluation **Our team:** **Assessed team:**	
Questions	✗ or ✓
Did the team include all the parts needed?	
Did the team talk about the operating system clearly?	
Did the team make a creative video?	
Did all team members work equally?	

UNIT 3: PROJECT GUIDED PAGE

This document helps you organize the process of your project. Remember to register all the steps.

Team members:

1. _____

2. _____

3. _____

4. _____

5. _____

People we'd like to interview: _____

Name	Date	Technology issue

Name of the Interviewee	
Role in the school	
Description of the issue	
User's request	
Possible solutions	

DATABASE TELEPHONE GAME

Time: 10 minutes

Description: The cinema's server was attacked by a virus and the database was compromised. Luckily, we removed the virus and we have a backup version, but the virus messed up all the tables and its attributes. We need your help to organize the database once again. You will read the names of the attributes and write them on the correct table.

Steps

1. Each row in the classroom will be a team.
2. The person at the end of the row will have a paper with the title of three different tables (customer, product and order).
3. There will be different pieces of paper randomly placed on the board containing the attributes of each table.
4. The person at the beginning of the row will stand up, turn over one of the papers and go back to the seat to tell the person behind them the uncovered word. The 2nd person in the row tells the word to the person behind them and so on and so forth until the last person of the row.
5. The last person of each row will write the attribute in the correct table. Then, they will go and sit down on the first seat of the row. The rest of the students sit on the seat behind theirs too. Now the person that passed the message first is the second person, and the last person goes to the first seat.
6. Repeat these instructions until all tables are complete.
7. Encourage rows not to give up. Keep record of the winning rows so you acknowledge their effort.
8. At the end of the game, the class altogether checks if each row placed the attributes correctly.

Materials:

Cut-outs of the attributes & Database Tables sheet.

**Solved database tables.

Customer
1.- First_name
2.- Last_name
3.- Email
4.- Telephone_number

Product
1.- Title
2.- Ticket_price
3.- Genre
4.- Movie_length

Order
1.- Order_number
2.- Order_date
3.- Total_price
4.- Discount

STUDENT'S EMPTY TABLES

Customer

Product

Order

Customer

Product

Order

Customer

Product

Order

Customer

Product

Order

First name
Last name
Email
Telephone number

Title
Ticket_price
Genre
Movie_length

Order_number
Order_date
Total_price
Discount

ANSWER KEY

UNIT I

LESSON I

C

1. task
2. programming
3. function
4. technology
5. algorithms

D

1. Boil a pot of water.
2. Add the spaghetti.
3. Stir the spaghetti occasionally.
4. Drain the water.
5. Serve with a sauce of your choice

LESSON II

A

1. c
2. b
3. a
4. e
5. d

C

a.- F
b.- T
c.- T
d.- F
e.- T

LESSON IV

B

1. No problem
2. That's great
3. Don't worry
4. Exactly!

UNIT II

LESSON I

A

1. G
2. D
3. F
4. E
5. A
6. B

D

1. Hardware is the physical part of a computer and software is the digital one.
2. Internal and external parts.
3. Computer programs, apps or operating systems.
4. Hardware and software are equally important and necessary.

LESSON 2

B

Linux & Ubuntu

C

1. False
2. True
3. True
4. False
5. True
6. False

LESSON III

B

1. repair
2. odd
3. take
4. issue
5. sorted
6. appreciate

LESSON 4: TECH SUPPORT

A

1. Henry needs advice on computers.
2. The user works editing pictures and worries about the speed of the computer.
3. Repairing a computer is cheaper than buying a new one, but new computers have better speed features.

UNIT III

LESSON I

C

1. True
2. False
3. False
4. False
5. True

D

A. 2
B. 1
C. 5
D. 4
E. 6
F. 3

LESSON 2

A

A. 5
B. 4
C. 1
D. 3
E. 2

B

1. hardware - software - networking
2. word processing
3. office automation system
4. the 90s
5. a bigger solution

LESSON III

B

1. tech-person
2. productivity
3. update
4. backup
5. install
6. user-friendly
7. compatible

UNIT IV

LESSON I

C

1. Source code
2. Closed source
3. Access
4. Programmers
5. Open source
6. Programs

D

1. CS
2. OS
3. CS
4. OS
5. CS
6. OS

LESSON II

B

A. 4
B. 1
C. 5
D. 3
E. 6
F. 2

C

1. False
2. False
3. True
4. True
5. False

VOCABULARY EXTENSION

A

1.- removing
2.- behave
3.- debug
4.- produces
5.- solve
6.- spot

B

a - 5
b - 1
c - 4
d - 2
e - 3

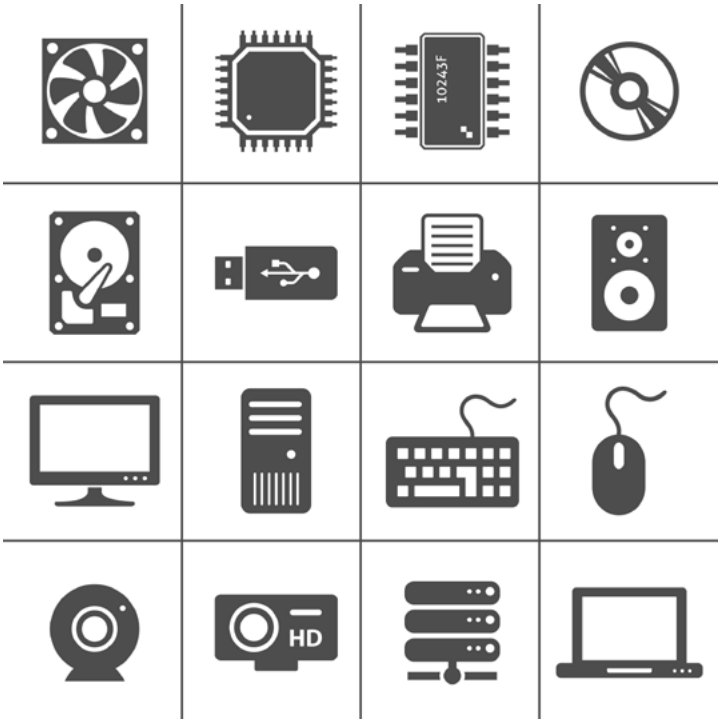
C

3 - 'water' instead of 'soda'.
5 - 'close to' instead of 'far away from'.
6 - 'all the '' instead of ''the green''.
9 - Go back to the house

Flashcards

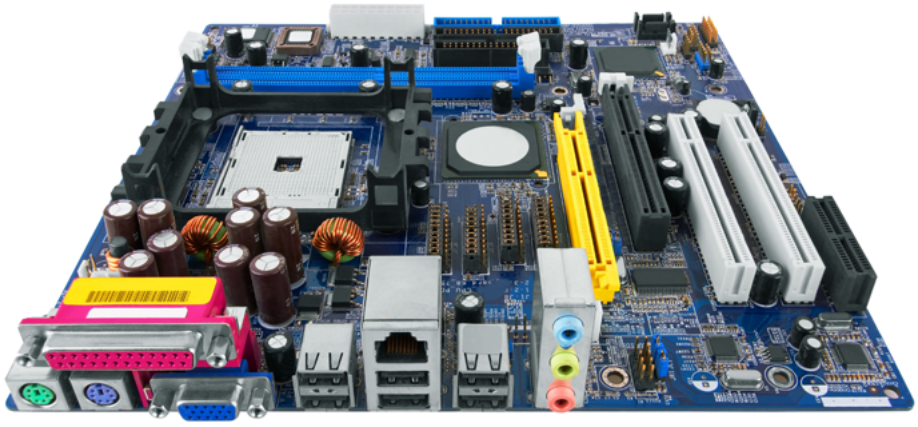
KEYBOARD

HARD DISK



HARDWARE

MOBILE DEVICE



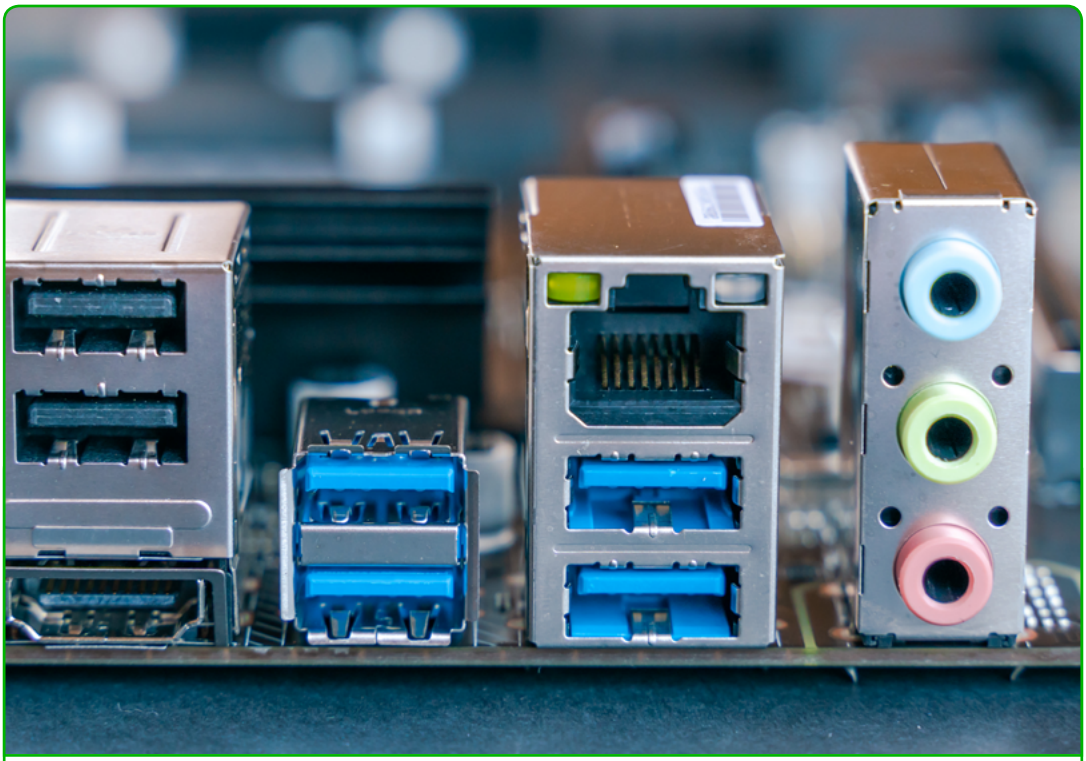
MOTHERBOARD

MONITOR

PRINTER

SERVER

VIDEO CARD



SOCKETS

BIBLIOGRAPHY

UNIT & LESSON	TITLE	SOURCE
Unit I Lesson I	'Computer Science Basics: Algorithms'	'Computer Science Basics: Algorithms' video taken from the Youtube Channel ' GCFLearnFree.org'. in September, 2019.
Unit II Lesson III	'A huge database of Facebook Users' phone numbers found online'	Adapted from: ''A huge database of Facebook users' phone numbers found online'', techcrunch.com in September, 2019
Unit II Lesson II	'Computer Basics: Understanding Operating Systems'	'Computer Basics: Understanding Operating Systems' video taken from the Youtube Channel ' GCFLearnFree.org' in October, 2019.
Unit II Lesson II	'Most popular mobile OS 1999 - 2019'	'Most popular mobile OS 1999-2019' video taken from the Youtube Channel 'Data Is Beautiful' in October, 2019.
Unit III Lesson I	'What Does Support Mean?'	'What Does Support Mean' video taken from the Youtube Channel 'SEU_OIT (The Office of Information of St. Edward's University)' in December, 2019.
Unit III Lesson I	'All About Office Automation System & Tips for Startups'	Adapted from https://www.quickfms.com/blog/office-automation-system-tips-startups in December, 2019.
Unit III Lesson II	'How can I increase my productivity on a computer?'	Adapted from Computer Hope,'How can I increase my productivity on a computer?' in December, 2019, from https://www.computerhope.com/issues/ch001511.htm
Unit III Lesson IV	'Open Source vs. Closed Source Software'	"Open vs closed source software" video taken from the Youtube Channel ' GCFLearnFree.org'. in January, 2020. https://www.youtube.com/watch?v=2q91vTvc7YE
Unit IV Lesson I	'Windows 7 support ended on January 14. 2020'	Adapted from Windows Support " Windows 7 support ended on Janurary 14, 2020'' https://support.microsoft.com/en-us/help/4057281/windows-7-support-ended-on-january-14-2020 visited in January, 2020
Unit IV Lesson II	"How to install an Operating System on a brand new computer"	Adapted from 'How to Install an Operating System on a brand new computer' in January 2020, from https://www.wikihow.com/Install-an-Operating-System-on-a-Brand-New-Computer
Unit IV Lesson IV	"macOs Catalina Hands On: What's New?".	"macOs Catalina Hands On: What's New?" video taken from the Youtube Channel ' MacRumors' in January, 2020.

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