НАЦІОНАЛЬНИЙ УНІВЕРСИТЕТ
«КИЄВО-МОГИЛЯНСЬКА АКАДЕМІЯ»

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VIDEO COURSE

THE DIGITAL AGE

Навчальний посібник
з англійської мови
для студентів НаУКМА
факультету інформаційних технологій

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АНОТАЦІЯ

Навчальний посібник **"Video Course: The Digital Age"**, розроблений для студентів факультету інформаційних технологій НаУКМА, охоплює ключові аспекти цифрових технологій і їх використання в сучасному світі. Структура посібника складається із шести тематичних розділів, що містять інтерактивні завдання, лексичні вправи, дискусійні питання та практичні відеоматеріали.

Розділи охоплюють такі теми, як «History of Computers» («Історія комп'ютерів»), «Inside A Computer» («Будова і функції сучасних комп'ютерів»), «Input, Output, And Communication Devices» «Пристрої введення, виведення й комунікації», «Webcam vs Laptop Camera Comparison» («Вебкамери і вбудовані камери. Порівняння»), «The Perfect Ergonomics Desk Setup» («Принципи ергономіки робочого місця»), а також «What Is Assistive Technology?» («Технології для підтримки людей із обмеженими можливостями»). Кожна тема супроводжується завданнями для відпрацювання фахового лексичного матеріалу, розвитку навичок аудіювання і мовлення, а також питаннями для обговорення, що стимулюють критичне мислення.

Особливістю посібника є використання сучасних методик навчання, таких як перегляд відео з подальшими вправами на перевірку розуміння, що допомагає розвинути мовленнєві і фахові компетенції,.

Посібник стане корисним ресурсом для студентів, які прагнуть опанувати англійську мову в контексті інформаційних технологій, розширити професійну лексику та поглибити свої знання про сучасний цифровий світ.

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TOPIC 1. HISTORY OF COMPUTERS

I. Lead-in

1. How old were you when your parents bought you your first computer? Was it a desktop or laptop computer?

2. What characteristics does your present-day computer have?

3. What purposes do you use your computer for?

II. Practicing Vocabulary

Task 1. Match the words in the box to their definitions:

a) anodize b) customizable c) drop-down menu d) paddle e) single-circuit board f) desktop computer g) mainframe computer h) equation i) additions j) subtractions

Paddle controller

1) a sheet of insulating material carrying circuit elements and terminals so that it can be inserted into an electronic apparatus.

2) of a size that can be conveniently used on a desk or table.

3) a list of choices that appears on a computer screen when you click on a place on the screen;

4) It is an input device, which is a game controller with a round wheel and one or more fire buttons;

5) the act or process of equating;

6) taking away from a total;

7) a computer with its cabinet and internal circuits especially when considered separately from any peripherals connected to the computer;

8) to subject (a metal) to electrolytic action as the anode of a cell to coat with a protective or decorative film;

9) The process of adding;

10) able to be changed in order to be suitable for a particular object or situation.

Task 2. Complete the sentences with the words given in the box:

a) anodized b) customizable c) drop-down menu d) paddle e) single-circuit board f) desktop g) mainframe h) equation i) additions j) subtractions

1) The ergonomic design of the _____ computer keyboard was discussed in the paper.

2) It has _____ mode switching with automatic tracking and has a larger field of compatibility.

3) The _____ controller was the hand controller used to move the line segments that actually came to bear the name.

4) Multiplication and _____ are associative operations.

5) The micro-holes in aluminate film _____ in oxalic acid are investigated by transmission electron microscopy.

6) Whereas a few years ago a _____ computer would have been essential to perform corpus processing, a desktop computer now suffices.

7) X and Y in the _____ are both unknowns.

8) Finally, you can use a _____ to access other options such as the preference page, where you can further customize the rendering.

9) The difference is found by _____.

10) The data acquisition and processing are carried out by a _____ computer.

III. Pre-Video Discussion:

1) Do you know who was the inventor of the first computer? When was it invented?

2) What computer producers do you know?

3) While watching a video, note down the brand names connected with the computer industry.

IV. Watching a Video

Task 1. Watch the video "Computer's History". Choose "True" or "False" to the following statements:

1. The history of the computer dates back to the 1900’s.

a) True

b) False

2. Atanasov and his student Berry created a computer that was capable of storing data in its memory.

a) True

b) False

3. The advent of a computer influenced the duration of the World War II.

a) True

b) False

4. Univac was the first prototype computer with transistors.

a) True

b) False

5. The first desktop computer had a typewriter, 37 keys, and a built-in printer.

a) True

b) False

6. In 1971, IMB invented the floppy disk.

a) True

b) False

7. Apple created the first computer with a single-circuit board and DRAM.

a) True

b) False

8. IBM launched the first IBM PC, with the Microsoft MS-DOS operating system.

a) True

b) False

9. The Macintosh was the first successful computer mouse with a graphical user interface.

a) True

b) False

10. In 1988, IBM released Personal System II, the first IBM system with the Intel 80386 chip.

a) True

b) False

Task 2. Watch the video again and complete the sentences with the words missing:

1. The history of the computer dates back to the _____, when many scientists began to develop various computing machines.
2. J.V. Atanasoff and his student Clifford Berry designed a computer capable of solving _____equations simultaneously
3. ENIAC, created by John Mauchly and Presper Eckert, weighed _____ tonnes and occupied 1,500 square metres.
4. In 1953, _____ Hopper developed COBOL, the first computer language.
5. In the 1960s, IBM launched its _____ series of mainframe computers using transistors.
6. The _____ 101 was the first desktop computer sold to the general public in 1965.
7. The first Apple computer, Apple I, appeared in _____ and was followed by the successful Apple II a year later.
8. IBM released the IBM PC in 1981, which used a _____ MS-DOS operating system.
9. In the 1990s, the advent of the _____ revolutionised how personal computers were used across various fields.
10. The Apple Mac Mini desktop system is an example of modern PCs offering _____ performance in a compact design.

V. Post-Video Discussion:

1) What was the first computer like?

2) What is the present-day computer like?

3) How have the computers changed over time?

4) How do you see the computers of the future? What will they look like? What functions will they perform?

TOPIC 2. INSIDE A COMPUTER

I. Lead-in

1. Have you ever tried to upgrade your computer or laptop on your own? What did you want to improve?

2. What elements of a computer did you change or add to upgrade it?

3. What elements of a computer does its efficiency depend on?

II. Practicing Vocabulary

Task 1. Read the words below. These are the elements of a computer. Can you explain which functions they perform?

motherboard	battery
power supply	random access memory
CPU	hard drive
expansion slot	solid state drive

Task 2. Read the sentences below. Guess what elements of a computer they describe.

1. A _____ contains some of the most important parts of the computer

2._____can be considered the brain of the computer because it processes information and carries out commands.

3. RAM or _____ is the short-term memory that the computer uses whenever it's performing calculations.

4. The _____ provides long-term storage keeping all of the computer's data even when it's turned off.

5. _____, which are faster and more durable but also more expensive, are used in modern computers to store information.

6. On many desktop computers the motherboard has _____that allow you to upgrade by adding expansion cards.

7. The _____unit is designed to take power from the wall outlet and send it to all of the different components that need power.

8. Laptops also contain a built-in _____that lets you use them anywhere.

III. Pre-Video Discussion:

1. What components do you think are essential for a computer to function?

2. Have you ever seen the inside of a computer? If so, what did you notice about its parts?

3. What part of a computer do you think is most important for processing information?

4. How do you think data is stored in a computer even after it's turned off?

5. Why might some people choose to upgrade their computer components over time?

IV. Watching a Video

Task 1. Watch the video again and choose a correct answer – true or false?

1. The motherboard is a large circuit board that holds some of the most important parts of the computer.

a) True

b) False

2. The CPU, or central processing unit, is considered the computer's long-term memory.

a) True

b) False

3. The heat sink is a piece of metal that helps cool down the CPU.

a) True

b) False

4. RAM, or random access memory, is used by the computer to store files even after it’s turned off.

a) True

b) False

5. Hard drives provide long-term storage and retain data even when the computer is turned off.

a) True

b) False

6. Expansion slots on the motherboard allow for the addition of components like video cards and wireless cards.

a) True

b) False

7. Most laptops have expansion slots, similar to desktop computers.

a) True

b) False

8. The power supply unit provides power to all computer components by converting electricity from a wall outlet.

a) True

b) False

9. Only desktop computers contain a built-in battery that allows them to run without being plugged in.

a) True

b) False

10. Solid-state drives (SSDs) are typically faster and more durable than traditional hard drives but are also more expensive.

a) True

b) False

Task 2. Watch the video again and complete the sentences with missing words.

1. Inside a computer, there are many important _____ that work together to make it function.
2. The _____ is a large circuit board found in every computer, whether it's a desktop or a laptop.
3. The CPU, also known as the central _____ unit, acts as the brain of the computer.
4. To prevent the CPU from overheating, it is covered by a metal piece called a _____.
5. The _____, or random access memory, provides short-term memory for calculations.
6. Unlike the RAM, the _____ drive stores all of the computer's data permanently, even when the computer is turned off.
7. Newer computers often use _____ state drives because they are faster and more durable than traditional hard drives.
8. Expansion slots on desktop computers allow users to add components like a _____ card for improved graphics performance.
9. The power _____ unit takes electricity from a wall outlet and distributes it to all of the computer's components.
10. Laptops include a built-in _____ that allows them to be used without being plugged into a power outlet.

V. Post-Video Discussion

1) Which elements of a computer are considered to be the most important? Less important?

2) Which elements do you think may change, be substituted, or disappear at all? Why?

TOPIC 3. INPUT, OUTPUT, AND COMMUNICATION DEVICES

I. Lead-in

1. *What is an input device?*
2. *What is an output device?*
3. *What are communication devices?*

II. Practicing Vocabulary

Task 1. Match each word or phrase in Column A with its corresponding definition or description in Column B by writing the correct letter next to each number.

Column A	**Column B**
1. Scanner	a. devices that translate printed codes into digital information;
2. Bar-code readers	b. the exchange of information between people or devices;
3. Communication	c. the physical parts of a computer system;
4. Speakers	d. an image or representation of something;
5. Software	e. the part of the computer screen showing where typing or clicking will occur;
6. Provide data	f. programs or applications that run on a computer;
7. Via a wire	g. send information to a system or device;
8. Hardware	h. the transmission of data, electricity, or signals through a physical cable;
9. Depiction	i. delivering or obtaining digital information through the internet;
10. Receive data from	j. equipment capturing physical documents or images and converting them to digital form;
11. Over networks	k. equipment that emits sound, typically for audio playback;
12. Cursor	l. accept information or signals from an external source.

Task 2. Read the sentences below and complete them with words and phrases from the box.

Scanner, bar-code readers, communication, speakers, software, provide data, via a wire, hardware, depiction, receive data from, over networks, cursor

1. _____ are commonly used in supermarkets to quickly scan product information at checkout.
2. Computers can _____ external devices like USB drives or cloud storage services.
3. High-quality _____ are essential for enjoying immersive sound while watching movies or playing games.
4. The term _____ refers to the programs and operating systems that allow a computer to perform various tasks.
5. Many businesses share files and collaborate _____ to improve efficiency and productivity.
6. Sensors in modern devices _____ to applications that analyze and present useful insights.
7. A _____ can disrupt communication systems, making cybersecurity an important concern.
8. The term _____ encompasses physical components of a computer, such as the motherboard, CPU, and hard drive.
9. Effective _____ between devices is essential for seamless data exchange in a connected world.
10. A _____ is a device that converts physical documents or images into digital format.
11. The _____ is a small symbol on a computer screen that indicates where user actions will take effect.

12. An infographic is a visual _____ of data designed to make information easy to understand.

III. Pre-Video Discussion:

1. What do you think hardware is, and why is it essential for a computer to work?

2. Can you give examples of devices that provide data to or receive data from a computer?

3. How do you think a device like a keyboard or a mouse interacts with the computer?

4. Why might some devices, like a phone or computer, be considered both hardware and software?

5. What types of devices might help a computer communicate with other computers?

IV. Watching a Video:

Task 1. Watch the video and say whether the statements are true or false.

1. People should differentiate between a computer and a computer system.

a) True

b) False

2, One of the examples of input devices is a computer tower.

a) True

b) False

3. A keyboard is another example of an input device.

a) True

b) False

4. An interface on the screen is created by the software coming to the computer.

a) True

b) False

5. A multi-functional unit is an input-output device.

a) True

b) False

6. Input and output devices, as well as communication devices, work on one computer system.

a) True

b) False

7. Communication devices are a separate category, differing from input and output devices.

a) True

b) False

Task 2. Watch the video 'Input, Output Devices' again and complete the sentences with the words missing

1. hardware 2. software 3. Input 4. Bluetooth 5. cursor 6. bar-code readers 7. scanner 8. Output 9. depiction 10. speakers 11. communication 12. over networks

1._____is the physical parts of the computer system.

2. You need to have hardware to run_____.

3. _____ devices are hardware which provide data to a computer.

4. You're typing on the keyboard and what you're typing in is sent either via a wire or perhaps over _____ to the computer.

5. A mouse communicates to the computer where you want your _____ to be on the screen.

6._____ might be used in supermarkets and stock rooms to read codes.

7._____ copies a document as a file to the computer.

8. _____ devices receive data from a computer and send it to the hardware device.

9. A screen is showing a _____of what is going on in the computer.

10. The _____ are producing the sound, which is coming usually through a wire from the computer.

11. _____ devices are things like switch hubs, modems, routers, and wireless access points.

12. Communication devices work across two or more devices to enable you to work _____.

V. Post-Video Discussion:

1) Which input/output devices are important for you? Which one(s) are not necessary?

2) Do you use a mouse? How often do you use it? Why?

3) What input or output devices may become unnecessary in the future? Why?

TOPIC 4. WEBCAM VS LAPTOP CAMERA COMPARISON

I. Lead-in

1. *How often do you use a webcam, and for what purposes?*
2. *What are the main advantages of having a webcam in modern devices?*
3. *Can you think of any challenges or privacy concerns related to webcams?*
4. *How have webcams evolved in recent years, especially during the rise of remote work and online learning?*
5. *What features are most important when choosing a good webcam (e.g., resolution, frame rate, microphone quality)?*

II. Practicing Vocabulary

Task 1. Read the words in the left column and match them with the synonyms in the right column

1. underneath the hood	a) poke with;
2. tape up	b) exposed;
3. flickering	c) working unsteadily;
4. susceptible	d) top;
5. stick with	e) clarify;
6. (laptop) lidding	f) under the cover;
7. soldering	g) spectacles;
8. to account for	h) fusing;
9. specs	i) put the tape on;
10. integrated	j) embedded

Task 2. Complete the sentences with the words given:

underneath the hood	tape up	flickering	susceptible	stick with	(laptop) lidding
soldering	account for	specs	integrated		

1. If you need a reliable webcam, it's better to _____ a brand known for high-quality devices.
2. Before buying a new webcam, compare the _____ to ensure it meets your requirements for video calls or streaming.
3. Some people prefer to _____ their webcams for added privacy and protection against hackers.
4. A _____ webcam light can be a sign that the camera is in use without your knowledge.
5. Webcams are _____ to hacking, which is why strong cybersecurity measures are essential.
6. Repairing a broken webcam sometimes requires _____ wires or connections on the motherboard
7. When you close your laptop lid, the _____ feature automatically turns off the integrated webcam for privacy and power-saving.
8. Most modern laptops come with _____ webcams, making them convenient for virtual meetings.
9. When choosing a webcam, you should _____ factors like resolution, frame rate, and field of view.
10. Modern webcams often have advanced features hidden _____, such as AI-powered autofocus and noise reduction.

III. Pre-Video Discussion:

1. What features or qualities do you think are important in a camera for laptops or online use?

2. Have you ever used an external webcam? If so, what was your experience compared to using a built-in laptop camera?

3. Why might someone choose to upgrade from their laptop's integrated camera to an external webcam?

4. What challenges do you think external webcams might pose for portability or everyday use?

5. How concerned are you about security when using a camera on your laptop or computer?

IV. Watching a Video:

Task 1. Watch the video about the webcams and say whether the statements are true or false.

1. Both internal and external webcams may keep flickering.

a) True

b) False

2. The only difference between the webcams consists in the name of the producer.

a) True

b) False

3. The main differences between the webcam and laptop cameras are the weight and design.

a) True

b) False

4. One of the disadvantages of the webcam is that it requires an extra port.

a) True

b) False

5. One of the advantages of the laptop camera is the difficulty of upgrading it.

a) True

b) False

6. The variety of designs and better technical characteristics are some of the advantages of internal webcams.

a) True

b) False

7. Both internal and external webcams may come under hacker's control.

a) True

b) False

Task 2. Watch the video about the webcams again and complete the sentences with the words missing

1. The primary difference here is that _____ cameras are integrated within the body of a laptop...

2.... while external webcams are purchased _____.

3. Both external and internal webcams are susceptible to certain _____ issues.

4. Laptop webcams are already _____ of the laptop.

5. _____ webcams, on the other hand, must be physically attached to the laptop leading**.**

6. With the external camera, during your day-to-day travels, you'll need to _____ for the added weight and bulk of another accessory.

7. External cameras also require a _____ on your laptop in order to function.

8. With an internal webcam, there is no way to upgrade or change any of the specs or _____ unless you want to do some seriously risky electrical soldering.

9. External cameras are available for purchase with your choice of _____ specifications and features.

10. Tape up the lens when the camera is not _____to minimise hackers controlling the camera.

V. Post Video Discussion

Work in groups. One group should discuss the advantages of internal cameras. The other one should talk about the advantages of external cameras. Then, exchange your ideas.

TOPIC 5. THE PERFECT ERGONOMICS DESK SETUP

I. Lead-in

1. What is ergonomics?

2. Do you observe the rules of ergonomics while working?

3. Why is it important to prioritize ergonomics when setting up a desk for work or study?

4. How does an improper desk setup affect posture and overall health in the short and long term?

II. Practicing Vocabulary

Task 1. Read the words and match them with the appropriate explanations

1. posterior pelvic sag	a) a narrow passageway surrounded by bones and ligaments on the palm side of the hand
2. flexed	b) a small knobbly, sesamoid bone that is found in the wrist.
3. ankles	c) the lower part of the arm, between the hand and the elbow
4. heels	d) the channels or conduits through which blood is distributed to body tissues.
5. wrist	e) an amount of paper serving as a device that allows the laptop to be kept at the right level.
6. forearm	f) the joint between your foot and your leg
7. the carpal tunnel	g) a problem connected with the wrong position of a pelvis (the set of large wide curved bones at the base of your spine, to which your legs are joined)
8. pisiform bone	h) bent or tightened

9. blood vessels	i) the curved back part of your foot
10. kickstand reams	j) the part of your body where your hand joins your arm

Task 2. Complete the sentences with the words given.

posterior pelvic sag flexed ankles heels wrist forearm the carpal tunnel pisiform bone blood vessels kickstand reams

1. Adjustable desks with features like _____ offer a versatile solution for maintaining an ergonomic workspace.
2. Your _____ should rest comfortably at a neutral position, with feet flat on the floor or on a footrest.
3. The _____ of your feet provide stability and should not be strained by hanging off a poorly positioned footrest.
4. When seated, ensure your knees are slightly _____ at about a 90-degree angle to maintain proper circulation.
5. An improper chair height often leads to _____, which can strain the lower back muscles over time.
6. Keep your _____ parallel to the desk surface to reduce strain and improve blood flow during typing.
7. Prolonged incorrect wrist positioning can compress _____, leading to discomfort or injury.
8. A proper ergonomic desk setup ensures your _____ remains neutral to avoid pressure on delicate nerves.
9. Proper posture and alignment allow the _____ in the arms and legs to flow unimpeded, preventing numbness.
10. Ergonomic keyboards are designed to minimize pressure on the _____, reducing wrist fatigue.

III. Pre-Video Discussion:

1. *Why do you think proper chair and desk alignment is important for maintaining good posture and health?*
2. *Have you ever experienced discomfort or pain due to poor ergonomics in your workspace?*
3. *What do you think are the key adjustments needed for an ergonomic desk setup?*
4. *Why might using a footrest or elevating a monitor be necessary for some individuals?*

IV. Watching a Video

Task 1. Watch the video 'The Perfect Ergonomics Desk Setup' and say whether the statements are true or false.

1. Posterior pelvic sag is the leading cause of back pain.

   a) True
   b) False

2. Your chair's backrest should support your pelvis at shoulder level.

   a) True
   b) False

3. If the back of your knees touch the seat rest, it means your chair is the correct size.

a) True

b) False

4. Your forearms should rest at desk height with your elbows bent at a 90-degree angle.

a) True

b) False

5. Keeping your ankles at 90 degrees ensures your heels can touch the ground comfortably.

a) True

b) False

6. Reaching forward for the keyboard and mouse reduces shoulder muscle tension.

a) True

b) False

7. Supporting your wrist at the base of the palm can help relieve soreness in the pisiform bone.

a) True

b) False

8. The top of your monitor should be positioned at or slightly above eye level.

   a) True
   b) False

9. If you use two screens equally, the join between them should be directly in front of you.

   a) True
   b) False

10. Placing bins and printers away from your desk encourages movement during the day.

   a) True
   b) False

Task 2. Watch the video 'The Perfect Ergonomics Desk Setup' and complete the sentences with words missing.

1. Sit as far back in your chair as you can so that your chair's backrest the _____ pelvis at belt level.

2. Adjust your chair height to your desk so that your forearms can rest at desk _____ with the elbows at 90 degrees.

3. If your feet don't reach the_____ you need a footrest to support them.

4. Place the keyboard and mouse at a _____ that keeps your elbows beside your body.

5. Your _____ should be at fingertip distance.

6. The top of the screen should be at eye level. Too high causes dry eyes and too low creates lower _____ issues.

7. If you use two screens equally, the _____ between the two should be directly in front of you.

8. Add a wireless keyboard and mouse to your _____.

9. Get a chiming app on your _____to remind you to check your posture every 15 minutes.

10. Place bins and printers away from your _____ to make you get up.

V. Post-Video Discussion:

1) Have you found anything useful while watching the video?

2) What recommendations do you like? Which ones do you consider nonsense?

3) What is posterior pelvic sag, and why is it important to avoid it in an ergonomic setup?

4) How can the placement of the keyboard and mouse reduce muscle tension and improve posture?

5) Work in groups. Think of 4-5 reasons why following the recommendations for working with a PC is important.

TOPIC 6. WHAT IS ASSISTIVE TECHNOLOGY?

I. Lead-in

1. What comes to mind when you hear the term "assistive technology," and who do you think it benefits the most?

2. What daily tasks or challenges do you think could be made easier with assistive technology?

3. Why do you think it's important to have customized (bespoke) solutions for individuals using AT rather than a one-size-fits-all approach?

4. How can assistive technology improve not only the lives of users but also their families, friends, and caregivers?

II. Practicing Vocabulary:

Task 1. Match words and phrases with their explanations:

1. Reliance 2. Operate 3. Bespoke 4. Confined	a) Refers to remote controls used to operate devices from a distance; b) To function, work, or run effectively; c) Dependence on or trust in someone or something for support, help, or survival; d) Kept in a specific condition or state; e) in progress;

5. "One size fits all" 6. Maintained 7. Scalable 8. Dexterity 9. Ongoing 10. Remotes	f) A phrase describing something designed to be suitable for a wide range of people or situations without specific customization; g) Capable of being expanded or adapted in size, scope, or capacity to meet increasing demands or requirements; h) Skill and ease in performing tasks, especially with the hands or body; i) Custom-made or tailored specifically to the needs or preferences of an individual or group; j) Restricted within certain boundaries or limits; kept in a small or enclosed space.

Task 2. Complete the phrases with the words given:

reliance operate bespoke confined "one size fits all" maintained scalable dexterity ongoing remotes

1. The _____approach to office furniture often fails to meet individual comfort needs.

2. The injured bird was _____ to a small cage while its wing healed.
3. A _____ business model allows companies to grow without overextending their resources.
4. The designer created a _____ chair tailored to the client's ergonomic needs.
5. The team's _____ on clear communication ensured the success of the remote project.
6. The pianist's remarkable _____ impressed everyone in the audience.
7. The company distributed new _____ to all employees for operating their virtual meeting equipment.
8. To _____ the new software effectively, the staff needed additional training.
9. The _____ improvements to the software have made it much more user-friendly.
10. The technician _____ the system regularly to prevent unexpected failures.

III. Pre-video discussion:

1. *Why do you think independence is an important aspect of quality of life for people with physical or communication challenges?*
2. *Can you think of any daily tasks that could become difficult for someone with limited mobility or dexterity?*
3. *How do you think technology can help improve communication for someone who cannot speak?*
4. *What are some common challenges people might face when using entertainment devices, and how could AT address these?*

IV. Watching a Video

Task 1. Watch the video 'What is Assistive Technology?' and say whether the statements are true or false.

1. AT helps to return independence through technology.

a) True

b) False

2. ACE stands for Assess, Communication, & Entertainment.

a) True

b) False

3. AT reduces the necessity for care.

a) True

b) False

4. RSL Steeper provide disabled people with a valuable partner.

a) True

b) False

5. RSL Steeper bring over 13 years of experience in crafting bespoke Assistive Technology solutions.

a) True

b) False

6. If a person has difficulty operating a telephone, he or she may be unable to chat with family and friends with the help of AT.

a) True

b) False

7. Several friendly technicians of the RSL Steeper company carry out a high-quality installation of the necessary equipment.

a) True

b) False

8. One of the AT devices enables a disabled person to open a window or a door without having to move from the seat.

a) True

b) False

Task 2. Watch the video 'What is Assistive Technology?' again and complete the sentences with the words missing.

1. AT can help in many areas, including ACE, which is access, _____ and entertainment.

2. AT can benefit many individuals by _____ their reliance on care. independence,

3. AT can increase _____ and improve social lives

4. Our fully scalable systems offer full _____.

5. AT solution can help you return to your _____ and independence.

6. AT delivers peace of mind not only to those using it but to their _____.

7. RSL Steeper crafts bespoke assistive technology solutions, _____ and supporting them.

8. The system is properly maintained with a programme of ongoing aftercare and _____.

9. You can open your windows without any effort or difficulty, without having to move from _____.

10. If you have any difficulty getting up and answering your door, AT will allow you to first see and talk to the person at the door and then, if you want to, _____ the door.

V. Post-Video Discussion:

1. How does AT help return independence to individuals with disabilities, as described in the video?

2. What are the three main areas where assistive technology is particularly beneficial?

3. How does RSL Steeper ensure their AT solutions are tailored to individual needs?

4. What examples from the video illustrate how AT improves security and reduces reliance on care?

5. How does ongoing support and maintenance contribute to the effectiveness of AT solutions over time?

KEYS

TOPIC 1. COMPUTER'S HISTORY

II. Practicing vocabulary:

Task 1.

1) e; 2) f; 3) c; 4) d; 5) h; 6) j; 7) g; 8) a; 9) i; 10) b.

Task 2.

1) f; 2) b; 3) d; 4) i; 5) a; 6) g; 7) h; 8) c; 9) j;10) e.

IV. Watching a video:

Task 1.

1. F; 2. T; 3. T; 4. F; 5. F; 6. T; 7. F; 8. T; 9. T.

Task 2.

1. 1800s; 2. 29; 3. 30; 4. Grace; 5. 7,000; 6. Programme; 7. 1976; 8. Microsoft; 9. Internet; 10. High.

TOPIC 2. INSIDE A COMPUTER

II. Practicing vocabulary:

Task 1.

Motherboard is the main circuit board in a computer. It connects all the critical components, such as the CPU, memory, storage, and power supply, and provides the

pathways for communication between them. It also includes slots for expansion cards and peripheral connections.

Power Supply (PSU) converts electricity from an outlet into usable power for the computer.

CPU (Central Processing Unit)

The CPU is the "brain" of the computer. It performs all the processing tasks, executes instructions, and carries out operations.

Expansion Slots are connectors on the motherboard that allow you to add extra functionality to a computer by inserting additional cards.

The battery provides power to the motherboard’s real-time clock and stores BIOS settings even when the computer is powered off.

Random Access Memory (RAM) is a type of computer memory that temporarily stores data being used or processed.

Hard Drive (HDD) is a storage device that uses spinning magnetic disks to store and retrieve data, including the operating system, applications, and files.

Solid State Drive (SSD) is a storage device that uses flash memory to store data. It is faster, more durable, and more energy-efficient than traditional hard.

Task 2.

1. Motherboard 2. CPU; 3. random access memory; 4. hard drive; 5. Solid state drives; 6. expansion slots; 7. power supply; 8. battery

IV. Watching a video:

Task 1.

1. a; 2. b; 3. a; 4. b; 5. a; 6. a; 7. b; 8. a; 9. b; 10. a.

Task 2.

1. parts; 2. motherboard; 3. processing; 4. heatsink; 5. RAM; 6. hard; 7. solid; 8. video; 9. supply; 10. battery.

TOPIC 3. INPUT, OUTPUT, AND COMMUNICATION DEVICES

II. Practicing vocabulary:

Task 1.

1. j 2. a; 3. b; 4. k; 5. f; 6. g; 7. h; 8. c; 9. d; 10. l; 11. i; 12. e

Task 2.

1. bar-code readers; 2. receive data from; 3. speakers; 4. software; 5. over networks; 6. provide data; 7. viral wire; 8. hardware; 9. communication; 10. scanner; 11. cursor; 12. depiction.

IV. Watching a video:

Task 1.

1. T, 2. T, 3. F, 4. F, 5. T, 6. F, 7. T.

Task 2.

1. hardware 2. software 3. Input 4. Bluetooth 5. cursor 6. bar-code readers 7. scanner 8. Output 9. depiction 10. speakers 11. communication 12. over networks

TOPIC 4. A WEBCAM

II. Practicing vocabulary:

Task 1.

1) f, 2) i, 3) c, 4) b, 5) a, 6) d, 7) h, 8) e, 9) g, 10) j.

Task 2.

1. stick with; 2. Specs; 3. tape up; 4. Flickering; 5. Susceptible; 6. Soldering; 7. laptop lidding; 8. Integrated; 9. account for; 10. underneath the hood

IV. Watching a video:

Task 1.

1. (T) 2. (F) 3. (F) 4. (T) 5. (T) 6. (F) 7. (T)

Task 2.

1. laptop, 2. separately, 3. repair, 4. Inside, 5. External; 6. account; 7. port; 8. features 9. advanced 10. in use

TOPIC 5. THE PERFECT ERGONOMICS DESK SETUP

II. Practicing vocabulary:

Task 1.

1) g; 2) h; 3) f; 4) i; 5) j; 6) c; 7) a; 8) b; 9) d; 10) e

Task 2.

1. kickstand reams; 2. ankles; 3. heels; 4. flexed; 5. posterior pelvic sag; 6. forearm; 7. the carpal tunnel; 8. wrist; 9. blood vessels; 10. pisiform bone.

IV. Watching a video

Task 1.

1. T; 2. F; 3. F; 4. T; 5. T; 6. F; 7. T; 8. F; 9. T; 10. T

Task 2.

1) supports; 2) height; 3) ground; 4) distance; 5) screen; 6) neck; 7) join; 8) laptop; 9) phone; 10) desk

TOPIC 6. WHAT IS ASSISTIVE TECHNOLOGY?

II. Practicing Vocabulary:

Task 1.

1. c; 2. b; 3. i; 4. j; 5. f; 6. d; 7. g; 8. h; 9. e; 10. a

Task 2.

1. one size fits all 2. confined; 3. scalable 4. bespoke; 5. reliance; 6. dexterity; 7. remotes; 8. operate; 9. ongoing; 10. maintained

IV. Watching a video:

Task 1.

1. T; 2. F, 3. T, 4. F, 5. F, 6. T. 7. F, 8. T

Task 2.

1. communication; 2. reducing; 3. security; 4. flexibility; 5. social life; 6. family and friends; 7. installing; 8. support; 9. your seat; 10. unlock and open.

Video Scripts

Video 1. History of Computers from 1930 to Present

(0:00 - 0:24)

The history of the computer dates back to the 1800s when many scientists began to develop various computing machines. However, the modern computer was developed in the 1930s, when Konrad Zuse created the first programmable computer, the Z1, which could do additions and subtractions very quickly. In 1941, he created the Z3, known as the world's oldest digital computer.

(0:24 - 0:53)

Unfortunately, the computer was destroyed during World War II, but later, in 1950, Konrad Zuse used the Z4, the world's first commercial digital computer. Another important moment in the history and evolution of the computer was also in 1941, when J. V. Atanasoff, a physics and math teacher, and his student Clifford Berry designed a computer that could solve 29 equations simultaneously. However, Atanasoff-Berry computer was the first computer capable of storing data in its memory.

(0:54 - 2:31)

In 1944, the Harvard Mark I Colossus was inaugurated. A huge computer that occupies an entire room, it was used during World War II to break the complex Lorentz cyphers used by the Nazis. Colossus offered immediate solutions, and it's believed that it significantly shortened the duration of the war.

Another computer that stood out at the time was ENIAC, created by John Mauchly and Presper Eckert. The computer was created for ballistic analysis used by the military during World War II. ENIAC occupied a room of 1,500 square metres, weighing 30 tonnes, and had 6,000 switches and 18,000 vacuum tubes.

A few years later, the two built UNIVAC, the first commercial computer for business and government applications. Another important step in the evolution of computers was the time when transistors replaced vacuum tubes. Thus, in 1953, the first prototyped computer with transistors was created, Manchester TC.

In 1953, Grace Hopper developed the first computer language called COBOL. At the same time, IBM created its first computer called IBM 701. In the early 1960s, IBM launched a 7,000 series of mainframe computers that used transistors.

The 7030 model, also called Stretch, was part of this series, with nine such computers being sold to scientific laboratories. The technologies used for this computer led to the development of the IBM 360, IBM's most successful series of computers. Slowly, the evolution of the computer was approaching what we know today to be.

(2:31 - 2:53)

In 1965, Programme 101 was the first desktop computer sold to the general public. It cost $3,200, was the size of a typewriter, had 37 keys, and a built-in printer. At the same time,

the world's first 16-bit commercial microcomputer, the DDP-116, was developed and sold for $28,500.

(2:53 - 6:24)

The year 1970 is marked by Intel, which launches Intel 1103, the first dynamic access memory chip DRAM. A year later, IBM invented the floppy disc, which allows data to be shared between computers. Now, who hasn't heard of Altair 8800? It was launched in 1975 and used the basic programming language developed by Bill Gates and Paul Allen.

Altair 8800 was a very popular computer, being the model that invented the term personal computer. In 1976, Apple appeared on the computer market with the Apple I, the first computer with a single-circuit board and ROM, to which you had to add a keyboard, a power supply, and a case. A year later, they launched Apple II, which was a great success.

It was an 8-bit computer and came with a switching power supply, keyboard case, manual, game paddles, and a box containing the breakout game. In 1981, IBM launched the first IBM PC, officially known as the IBM Model 5150. It was based on a 4.77 MHz Intel 8088 microprocessor and used a Microsoft MS-DOS operating system.

This was the computer that revolutionised the development of computers, being cloned on a large scale and thus generating the creation of so many softwares and peripherals. Apple launched Apple Lisa in 1983, the first personal computer to have a graphical user interface. It had a drop-down menu and icons, a Motorola 68000 microprocessor, 1 MB

of RAM, a 12-inch black and white monitor, dual floppy disc drives, and a 5 MB hard drive.

A year later, Apple introduced the Macintosh, the first successful computer mouse with a graphical user interface and based on the Motorola 68000 microprocessor. In 1984, Michael Dell created PCs Limited, where he created the first self-designed computer called Turbo PC. In the early 1990s, Dell was one of the leading computer developers.

In 1987, IBM released Personal System II, the first IBM system with the Intel 80386 chip. The computer also came with the new operating system OS II, which, for the first time, allowed users of a mouse for IBM computers. The 1990s were marked by an innovation introduced by Apple, their new iMacs.

The 1998 G3 came with a clear, customisable case. It was sold for $1,300 and included a 4 GB hard drive, 32 MB RAM, a CD-ROM, and a 15-inch monitor. Apple also marks the 2000s.

In 2003, it launched the Apple G5, the most powerful Macintosh today. The computer had an anodised aluminium case and was named the first true 64-bit personal computer. So, in the 1990s, with the advent of the internet, personal computers began to be widely used in all fields.

Gradually, computers evolved drastically, both in terms of design and performance. Thus, the market for computer competence began to grow more and more, with users being able

to create their own PC system according to their own needs. Moreover, it is incredible how from computers that occupied an entire room and performed very simple actions, technology has come to offer us today very small PCs such as the Apple Mac Mini desktop PC system, which offers very high performance when working or doing a gaming session.

(6:25 - 6:34)

So, we have all the evidence that technology is not standing still but constantly evolving from day to day. What do you think computers will look like in the coming years?

Video 2. Computer Basics. Inside a Computer

(0:00 – 0:29)

You may already know that there are many important parts inside a computer, but what exactly do they do? Let's take a look inside and learn about the various components that make a computer work. Whether it's a desktop computer or a laptop, every computer has a large circuit board called a motherboard. This contains some of the most important parts of the computer, such as the CPU, also known as the Central Processing Unit or processor.

(0:29 – 0:50)

The CPU can be considered the brain of the computer because it processes information and carries out commands. Since it tends to get hot, it's covered by a piece of metal called

a heatsink, which draws heat away from the processor. The motherboard also contains the computer's RAM, or Random Access Memory.

(0:50 - 1:10)

This is the short-term memory that the computer uses whenever it's performing calculations. However, you cannot store your files there because the RAM is cleared when you shut off the computer. The hard drive provides long-term storage, keeping all of the computer's data even when it's turned off.

Many hard drives use a magnetic platter to store data, but many newer computers have solid-state drives, which are faster and more durable but also more expensive. On many desktop computers, the motherboard has expansion slots that allow you to upgrade by adding expansion cards. You can add a video card to get better graphics performance, or you can add a wireless card to connect to your wireless home network.

(1:38 – 2:15)

Most laptops, however, don't have expansion slots. Of course, the computer's components need electricity to run. The power supply unit is designed to take power from the wall outlet and send it to all of the different components that need power.

Laptops also contain a built-in battery that lets you use them anywhere. A computer is a pretty complex machine, but now that you've seen what goes on inside, it should be a little less mysterious. GCF Global.

Video 3. Input, Output, and Communications Devices

(0:00 - 1:13)

Hello, this is the first of quite a few videos focussing on computer hardware. I am starting now by categorising hardware as either input, output, or communications devices. So, before we get started on those categories, let's just define what hardware is. So, hardware are the physical parts of the computer system.

If you can touch it, it's physical and it's part of the computer, it must be hardware. So, for example, the actual phone itself, what the phone is made of is the phone's hardware. The phone is a computer and so, therefore, the physical parts are the hardware.

The computer itself, the computer system, to use a more formal phrase, is made up of both hardware and software. Okay, so the computer as a physical thing is hardware, but the actual system has both hardware and software. So, software, we'll talk more in future videos, but software are the instructions running on the hardware.

You need to have hardware to run software. So, the software, things like the apps, the hardware, things like the CPU, motherboard, touchscreen, camera, etc. The programmes running on the app in this example are the software.

(1:14 - 2:06)

We can't physically touch them. And hardware devices can be categorised in loads of ways and we'll cover some in future videos. But for now, let's try and put some devices into the categories of input, output, and communication devices.

So, starting off with input devices. So input devices are hardware which provide data to a computer. So, we've got a computer, computer tower, something like a keyboard is a great example of an input device.

Because you're typing on the keyboard, what you're typing in is sent either via a wire or perhaps over Bluetooth to the computer. Same idea with a mouse, you move the mouse around, it communicates to the computer where you want the cursor to be on the screen. Other examples are things like barcode readers, might be used in supermarkets and stock rooms to read codes and communicate it to the computer.

(2:06 - 3:12)

Something like a scanner, which puts a document under the scanner lid and copies it as a file to the computer. Often scanners are part of a printer, but the scanner itself is the input device part of it. A webcam is another good example, as is a graphics tablet.

So, all of these, when they are used, primarily send data to the computer. Now, this is a bit simplistic, you might be thinking well actually data is coming out of a computer too. So for instance, this keyboard is quite a fancy one with different lights behind the keys.

You might be able to control the lights on the keyboard on the computer, which would mean some data has to be sent from the computer to the keyboard. But, primarily, their main role is to provide this data to the computer. Okay, so for example, the graphics tablet, you've got a pen, you can draw on the tablet, and the tablet will send either through a wire or wirelessly, it will send the data, telling the computer where the cursor should go, and what pressure to draw, for example.

(3:13 - 4:06)

For an exam situation, make sure you can go in knowing a few examples of input devices, like the ones on the screen. There are more, so a microphone, for example, is another input device. Also, you might be given a scenario and have to think on your feet a little bit and evaluate these devices.

But that really depends on the scenario, so it's very difficult to predict ahead of time. To give now output devices, I won't animate it because I've only got four examples on the slide, so output devices receive data from a computer. So, the data is primarily coming from the computer and going to the hardware device.

So, for example, a monitor on the left, a monitor, a screen, is showing a depiction of what is going on in the computer. You can see an interface created by the software. That needs to come from the computer, and so it's an output device.

(4:06 - 4:25)

Likewise, speakers, the sound is coming usually through a wire from the computer to the speakers, which are producing the sound. Projector, printer are good examples. That printer looks like it's got a scanner as well, so just the printing part is the output in that situation.

(4:25 - 4:44)

The final category are communications devices. So, these are covered in their own video in much more detail. Examples of these are things like hubs, switches, modems, routers, wireless access points, things which enable you to send and or receive data between computers.

(4:45 - 5:00)

So, generally, input and output devices are working on one computer system, but communications devices work across two or more devices. So, really, they enable you to work over networks, but we'll talk about these in more detail in a future video.

Video 4. Webcam vs Laptop Camera Comparison. Which Is the Best?

(0:03 - 0:55)

If you are looking for a webcam vs laptop camera comparison to decide whether you should buy a webcam or stick with your laptop's camera, you are in the right place. The primary difference here is that laptop cameras are integrated within the body of the laptop, while external webcams are purchased separately if you are looking for the leading

wireless webcams. Beyond this key difference, it truly depends on the make and model of the camera itself if you are comparing the top-rated webcams for Chromebooks.

Here are the main differences between webcams and laptop cameras. Both types are susceptible to certain repair issues, for instance, if you are wondering why your webcam keeps flickering. Otherwise, there are many more minor differences between the two camera types.

(0:57 - 1:18)

Laptop webcams are already inside of the laptop, so if you are trying to figure out any potential issues with carrying it around throughout the day, that's one problem solved. External webcams, on the other hand, must physically attach to the laptop, leading to some potential obstacles during your day-to-day travels. You will need to account for the added weight and added bulk of another accessory.

(1:20 - 2:38)

In addition to weighing more than dedicated laptop cameras, they also require a port on your laptop in order to function. You will need to make sure you have a port available every time you want to use it. In contrast, you don't need a port for a laptop camera as it is already connected underneath the hood.

Also, modern laptops seem to be cutting the number of available ports, so this could be a real issue if you like to use a computer with plenty of attached accessories. With a laptop

webcam, what you see is what you get. There is no way to upgrade it or change any of the specs or features unless you want to do some seriously risky electrical soldering.

External cameras, on the other hand, are available for purchase with just about every design imaginable. You will have your choice of advanced specifications and features instead of being stuck with whatever the laptop manufacturer chose. One tip for my viewers.

No matter which you choose, tape up the lens when the camera is not in use to minimise hackers controlling the camera. If you've learned anything from this video, it's that laptop cameras and webcams have plenty of differences. If you travel often and like to pack lightly, you could probably just stick with your laptop camera.

It'll work fine. Thank you for watching. Hope, this video helped you understand the differences.

Take care.

Video 5. The Perfect Ergonomic Desk Setup To Avoid Back & Neck Pain

(0:00 - 0:17)

Avoid posterior pelvic sag because it's the number one cause of back pain. Sit as far back in your chair as you can so that your chair's backrest supports the pelvis at belt level. Make sure that the back of your knees don't touch the seat rest.

(0:17 - 0:52)

If they do, the chair is too big for you and you need a different chair. Remove armrests if your chair can't move under the desk without them. Adjust your chair height to your desk so that your forearms can rest at desk height with the elbows at 90 degrees.

Keep knees at 90 degrees not extended or flexed. Make sure that your heels touch the ground when your ankles are at 90 degrees. If your feet don't reach the ground, you need a footrest to support them.

(0:53 – 1:28)

Reaching forward for your keyboard and mouse tenses the muscles in the shoulders and encourages forward head posture, so place the keyboard and mouse at a distance that keeps your elbows beside your body. Keep your wrists straight in line with your forearm to avoid issues with RSI and carpal tunnel. If the pisiform bone between your wrist and hand gets sore, support your wrist with something soft, but at the base of the palm, not at the soft part of the wrist where the important nerves and blood vessels run.

(1:28 – 2: 02)

Your screen should be at fingertip distance. Too close causes eye strain and too far away causes neck craning. The top of the screen should be at eye level.

Too high causes dry eyes and too low creates lower neck issues. Prolonged neck rotation causes upper neck problems, so if you have two screens, put the main one directly in front

of you and the less frequently used screen as close as possible to the side. If you use two screens equally, the join between the two should be directly in front of you.

(2:02 – 2:33)

Try to rotate your chair, not your head, where possible. Plug your laptop into an elevated monitor, or get a kickstand, reams of paper or books to support your laptop at the correct level, and then add a wireless keyboard and mouse to your laptop. Place your phone on the opposite side to your mouse to discourage supporting your phone with your shoulder, or better yet, use a headphone set.

(2:33 - 2:51)

Get a chiming app on your phone to remind you to check your posture every 15 minutes and to remind you to get up or do some exercises at least once an hour. Use phone calls as an excuse to walk, and place bins and printers away from your desk to make you get up.

Video 6. What is Assistive Technology?

(0:01 - 0:23)

The first thing that people say is, what is AT? Well, there are many ways to answer that question. You could say it stands for assistive technology. That is technology that assists you in some way. If you have a disability, you may need assistance with any number of

things, from someone who needs an easier way to open a door to someone who can only move their eyes and needs a more comprehensive solution.

(0:24 – 0:44)

We like to sum up AT as returning independence through technology because everyone's needs are different, the assistance they require is also different. AT can help in many areas, the main ones are ACE, access, communication and entertainment. Some people find it difficult or impossible to get to and answer the door.

(0:44 – 1:06)

Imagine being confined to the chair in your living room and the doorbell rings, what would you do? AT has solutions for that. Some people have limited dexterity, so using small buttons on telephones and computers can be a challenge, or they might not be able to speak. Now imagine you need to contact a family member; what would you do? AT has solutions for that.

(1:06 – 1:39)

Imagine you are confined to your bed, but at least you have the television on, then that programme you really want to watch is on the other channel, or you now want to listen to some music. You can't reach or are unable to operate the remotes, what would you do? AT has solutions for that too. AT can benefit many individuals, by reducing the reliance on care, it can return greater independence, it can increase security and improve social lives, it delivers peace of mind not only to those using it but to their family and friends, colleagues and caregivers, it improves quality of life.

(1:39 – 2:05)

RSL Steeper brings over 30 years of experience in crafting bespoke assistive technology solutions, installing and supporting them. We understand that everyone has individual needs, and there isn't a one-size-fits-all solution. We begin by assessing and discussing the needs of the individual and producing a bespoke AT package that will work for you.

(2:05 – 2:42)

We can draw on a large catalogue of devices and equipment that can come together in many ways to provide individual solutions. Our fully scalable systems offer full flexibility, there is no job too big or small. We will then arrange and deliver a high-quality installation with one of our own friendly technicians at a time to suit you.

We then see that the system is properly maintained with a programme of ongoing aftercare and support. Our experience with each part of the process from assessment to aftercare, means you will have a valuable partner with you every step of the way. Your goal becomes our goal.

(2:42 – 3:17)

If you think some things in life should just be easier, you may just have the answer. Imagine it's a warm day, and you need to open the windows, but you can't do it yourself, and there isn't anyone else around. You have no option but to become hotter and hotter.

We can instal an AT device where you can open your windows without any effort or difficulty, without having to move from your seat. If you have any difficulty getting up and answering your door, you may feel that you need to leave it unlocked, just in case. Our AT solution will allow you to first see and talk to the person at the door and then if you want to, unlock and open the door for you, a much more secure option.

(3:17 – 3:31)

If you have difficulty operating a telephone, you may, therefore, be unable to chat with friends and family or call anyone in emergency. Similarly, they can't call you. There is an AT solution that can help and return your social life and independence.

(3:31 – 4:00)

Entertainment is essential. If you need to control the TV in any way, DVD player, hi-fi, iPod dock, almost any entertainment device, our AT devices can help you with all of this. Simply select what you want on, which channel, which song or album, how loud, or turn it all off.

AT can help improve so many people's lives and return their independence. RSL Speaker. Improving people's lives.

This is what AT really is.

Список джерел відео матеріалів

1.

https://m.youtube.com/watch?v=gjVX47dLlN8

2.

https://m.youtube.com/watch?v=HB4I2CgkcCo&pp=ygUhY29tcHV0ZXIgYmFzaWNzIGluc2lkZSBhIGNvbXB1dGVy

3.

https://m.youtube.com/watch?v=g8C5aUCFM5o&pp=ygUnaW5wdXQsIG91dHB1dCBhbmQgY29tbXVuaWNhdGlvbiBkZXZpY2Vz

4.

https://m.youtube.com/watch?v=K333AqI7sQs&pp=ygUjd2ViY2FtIGFuZCBsYXB0b3AgY2FtZXJhIGNvbXBhcmlzb24%3D

5.

https://m.youtube.com/watch?v=riD8Xt8r1MQ&pp=ygUgdGhlIHBlcmZlY3QgZXJnb25vbWljIGRlc2sgc2V0dXA%3D

6.

https://m.youtube.com/watch?v=SIm2MuJUCTE&pp=ygUhd2hhdCBpcyBhc3Npc3RpdmUgdGVjaG5vbG9neSAoYXQp