

GET THINKING

INFORMATICS AND TELECOMMUNICATION

CONTENTS

INFORMATICS AND TELECOMMUNICATION

1 INFORMATION TECHNOLOGY	Digital footprints: who's watching you?	p. 2
	Vocabulary 1 – Privacy and security	p. 4
	Vocabulary 2 – Using a computer	p. 5
	Vocabulary 3 – IT jobs and the internet	p. 5
2 LEARNING AND LEISURE	The classroom revolution	p. 6
	Vocabulary 1 – e-Learning	p. 8
	Vocabulary 2 – Learning and leisure	p. 9
3 EQUIPMENT AND ACTIVITY	Computers – timesavers or time wasters?	p. 10
	Vocabulary 1 – Parts of a computer	p. 12
	Vocabulary 2 – Gaming	p. 13
KEY		pp. 14-15

INFORMATION TECHNOLOGY

Digital Footprints: Who's watching you?

1 _____ ?

Every time you log on to the internet you create a **digital footprint**. When you walk, you leave **traces** on the ground and when you use the internet you leave a ¹ data trace. The size of your digital footprint depends on your online activities.

There are two types of digital footprint: passive, which is when data is collected without the user knowing; and active, which is the personal information the user gives on websites and social media. Your ² online security and privacy depends on the contents of both your digital footprints. Although we can control the personal data that we give, we don't know exactly who can access this information. More worryingly, we don't know how big our passive footprint is, who uses the data or what they use it for.



2 _____ ?

Social media companies and websites collect information to update and improve their services and build customer databases. Internet corporations and search engines use the information to personalise their services but also for **advertising**. They analyse users' browsing history then send pop-ups and adware for products that they think will interest them. Websites can learn a lot about consumers' preferences from cookies. They analyse the data and use it to build up a picture of you and your lifestyle as well as to predict general trends.

3 _____ ?

Unfortunately, criminals also manage to access this information and they use it for illegal online activities such as ³ hacking, ⁴ identity theft and **fraud**. This means that online privacy and security are important issues for all users. Everyone installs an antivirus, spyware and a firewall to protect their devices, but there are other ways to protect the amount and type of personal data that is out there on the internet. Many internet users try to reduce their digital footprints to a minimum. The best way to do this is to stop using social media and smart phones – but as this isn't a realistic option for most of us, here are some useful tips to minimise your digital footprints. The basic rule is: the less data you share, the safer you are.

GENERAL TIPS

- Keep your passwords and PIN secret.
- Check your privacy settings on social media and other online accounts.
- Never post your home address or phone number online.
- Keep personal information as general as possible.
- Photos can give away a lot of information about you so think carefully before posting a picture.

SOCIAL MEDIA

- Only post when you're connected via a password-connected secure Wi-Fi.
- **Set** the ⁵ privacy settings so that only people on your approved list can view your information.
- Be careful about agreeing to tagging on posts and photos.

MOBILE DEVICES

- Use ⁶ flight mode – which stops data transmission – when you're using apps such as games.
- Turn off cellular data connections, Wi-Fi and GPS.

Glossary

digital foot print – *impronta digitale*
 traces – *tracce*
 advertising – *pubblicità*
 fraud – *frode*
 set – *impostare*

READING COMPREHENSION

1 Read the article and match the questions A-D to the spaces 1-3. There is one extra question.

- A Why is online privacy important?
- B What is personal data used for?
- C Who are cyber criminals?
- D What's a digital footprint?

2 Read the article again and decide if the sentences are true (T) or false (F). Correct the false sentences.

- | | T | F |
|---|--------------------------|--------------------------|
| 1 If you share a lot of personal information on the internet your digital footprint is bigger. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 Every user has only one type of digital footprint. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 We can choose who sees our personal information. | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 We don't know much about our passive digital footprint. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 Websites, social media and internet companies use personal data to make their services better. | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 Advertising companies never use personal data. | <input type="checkbox"/> | <input type="checkbox"/> |
| 7 Internet companies give criminals personal information. | <input type="checkbox"/> | <input type="checkbox"/> |
| 8 A basic mobile phone and no social media are the best ways to protect your online privacy. | <input type="checkbox"/> | <input type="checkbox"/> |
| 9 Photos are safer than messages to post on the internet. | <input type="checkbox"/> | <input type="checkbox"/> |
| 10 If you share a lot of personal information on social media you are more at risk of privacy problems. | <input type="checkbox"/> | <input type="checkbox"/> |

3 Match phrases 1-6 in the article with the definitions.

- | | |
|---|------------------|
| 1 using another person's name and personal details without permission | 4 Identity theft |
| 2 when your phone can't send or receive messages | _____ |
| 3 signs of internet activity | _____ |
| 4 illegally accessing data in a computer | _____ |
| 5 this controls the people who can look at your personal information | _____ |
| 6 the safety of personal data on the internet | _____ |

4 PAIRWORK Carry out a class survey about online security and privacy.

- 1 In pairs, use the list of tips about minimising your online footprint to make survey questions.
 - 1 Do any other people know your passwords /PINs?
 - 2 On social media accounts, do you only allow access to a limited group of people?
- 2 Interview 10 classmates and note down their answers.
- 3 In pairs, analyse the answers and write down the results of your survey.

VOCABULARY 1 – Privacy and security

1 Match a word from each group to make a new word.

fire anti
pass data
ad spy

ware base
word wall
ware virus

- 1 **firewall**
- 2 _____
- 3 _____
- 4 _____
- 5 _____
- 6 _____

2 Match the words to the definitions.

- 1 pop-up → **B** a small window that appears on top of a webpage containing an advert.
- 2 adware → **E** software that has adverts embedded in it.
- 3 browser → **C** a program that allows users to find pages on the internet
- 4 install → **D** to put software onto a computer
- 5 access → **F** to see information on a computer
- 6 share → **A** to give information to other people

3 Cross out the word that you cannot use with the verb.

- | | | | |
|------------------|-----------------------|---------------------|------------------------|
| 1 install | A an antivirus | B a password | C spyware |
| 2 re-set | A your PIN | B a pop-up | C your password |
| 3 update | A worms | B a firewall | C a database |
| 4 block | A database | B pop-ups | C adverts |
| 5 use | A firewall | B a filter | C phishing |
| 6 delete | A spam | B a browser | C an attachment |

4 Read the clues and complete the puzzle.

			1	P	D		T							
			2		A									
		3F			T		R							
4		R		W	A									
					5B		W							
					6A			V					S	
			7		S		T							
8	O		K		E									

CLUES

- 1 To add new information; to have the latest version.
- 2 Emails that you don't want
- 3 A device that removes things you don't want, for example spam.
- 4 A protection device for a computer
- 5 A programme that enables you to look at pages on the internet.
- 6 It protects the main memory of a computer from infection.
- 7 Change, for example a password.
- 8 Files made by a website that stores information about you.



VOCABULARY 2 – Using a computer

1 Match the verbs with opposite meanings

- | | |
|-------------|---------------|
| 1 open | A delete |
| 2 upload | B receive |
| 3 save | C scroll down |
| 4 send | D paste |
| 5 scroll up | E close |
| 6 cut | F download |
-

2 Complete the sentences with a word from the box.

upgrade • set • ~~load~~ • reboot • edit • bookmark • take • backup

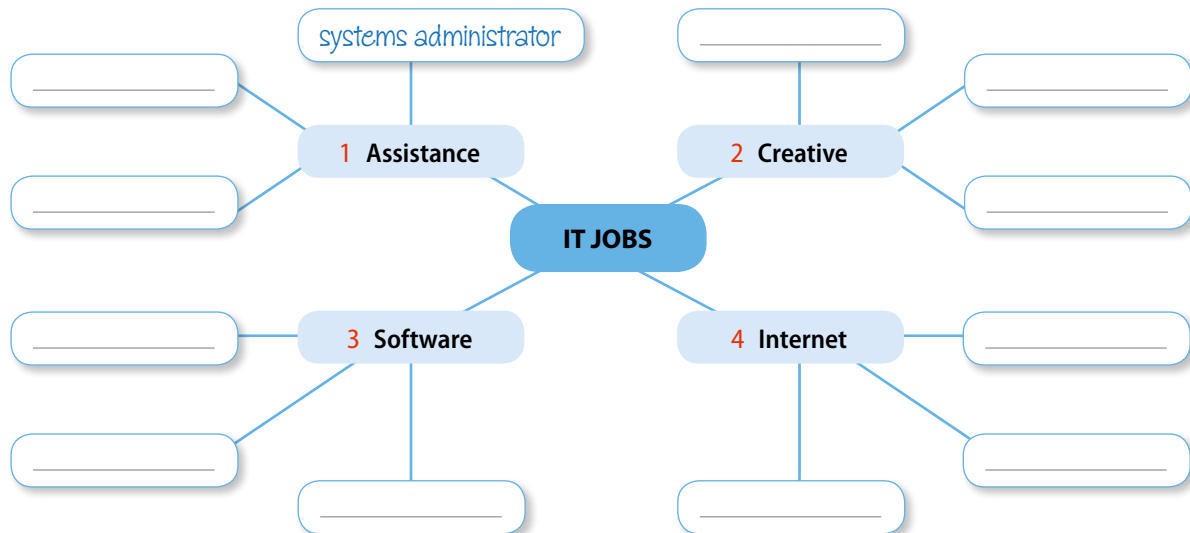
- The internet is slow today! It's taking a long time to **load** this page.
- My smart phone is getting old, I want to _____ to a new model.
- Oh, no! My computer has crashed. I need to _____ it.
- It's a new account so you must _____ a password.
- If you don't want to risk losing it _____ your work at the end of every session.
- Could you _____ a screenshot and send it to me, please?
- This is a great site, I'll _____ it so I can find it again.
- This document is too long and complicated, you need to _____ it to make it shorter.

VOCABULARY 3 – IT Jobs and the internet

3 Circle the word that doesn't belong in the group.

- | | | | |
|----------------------|--------------------|----------------------------|-----------------------|
| 1 Software: | programmer | software developer | systems administrator |
| 2 Assistance: | desktop technician | technical support engineer | web designer |
| 3 Creative: | game designer | online retailer | graphics artist |
| 4 Internet: | vlogger | HTML developer | digital editor |

4 Complete the mind map and add the words you have circled in exercise 3 to the correct groups.



LEARNING AND LEISURE

The Classroom Revolution

Ten years ago, school students took a bag full of books and a pencil case to school but today's students are more likely to have a tablet and a smart phone in their bags. Mobile devices are the **tools** of the future.



Education has moved out of the classroom. Mobile devices, like tablets, mean it is possible for students to work wherever they are – in the classroom, at home, on the bus, at a friend's house. This generation of young people are able to understand the link between what they learn at school and the real world they live in.

There are fewer textbooks in schools, although they haven't become completely extinct - yet! Many schools with **IWBs** are using blended learning packages. E-books are cheaper, more up-to-date and more interactive than print books and a tablet is a lot lighter than a bag of books to carry! Not all schools can provide tablets but many adopt a BYOD (bring your own device) policy, which means students can access online learning materials such as videos, podcasts and educational games. Teachers can use blogs, websites, video clips, and virtual tours in their lessons to make their lessons more interesting.

Classroom technology has also changed the traditional roles of the teacher and the student. Learning is becoming less teacher-centred and more student-centred. Students no longer just listen and **take notes**, they participate actively in lessons, which makes learning more interesting and **engaging**. In the past, the teacher and the textbook were the only sources of information, whereas now students can use apps and the internet to access all the information they need. The teacher's job is now to plan and coordinate lessons as well as to offer students **guidance** and help in their work.

Video conferencing, instant messaging and video chat apps mean students can collaborate with other students both near and far away, in real time. The virtual classroom has become reality. Online learning not only helps with studies but it also teaches students how to work with other people and how to share and develop information. Students can also enjoy the social experience of being a member of an online community.

Perhaps one of the biggest advantages of classroom technology is its flexibility, which enables personalised learning. Each student has different learning needs according to their ability, level, **rate of progress** and goals. Teachers are using the new learning tools to enable each student to work and progress at their own level and pace. E-learning has also opened the door to all kinds of students of all ages. Anyone can study, anywhere and at any time with the help of e-mentors and online resources such as webinars, COD (content on demand) and intranet communities.

Glossary

tools – *strumenti*
 IWB (interactive whiteboard) – *LIM (lavagna interattiva multimediale)*
 take notes – *prendere appunti*
 engaging – *coinvolgente*
 guidance – *orientamento*
 rate of progress – *ritmo di apprendimento*



READING COMPREHENSION

1 Read the article and decide if the sentences are true (T) or false (F).

- 1 Most schools still use traditional teaching and learning methods.
- 2 Some schools encourage students to bring their own devices to school.
- 3 Students can improve their learning and social skills by using classroom technology.
- 4 E-learning is only for teenagers.

T	F
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

2 Read the article again and answer the questions.

- 1 How has school equipment changed in the last ten years?

- 2 What important difference have mobile devices made?

- 3 Why do many schools prefer e-books?

- 4 What teaching materials can the internet provide?

- 5 How has classroom technology changed learning and teaching?

- 6 Why are students more active and interested in lessons?

- 7 What is the teacher's job now?

- 8 What is a 'virtual classroom'?

- 9 What are the benefits for students of online learning?

- 10 How can e-learning help adults?

3 PAIRWORK Discuss your personal experience of classroom technology.

- 1 What devices do you use in lessons?
- 2 Which types of online learning have you tried?
- 3 What are the advantages and disadvantages of classroom technology in your opinion?
- 4 What do you think is the best way to learn?

A: *I don't use any devices in the lesson.*

B: *We sometimes use the IWB.*



VOCABULARY 1 – e-Learning

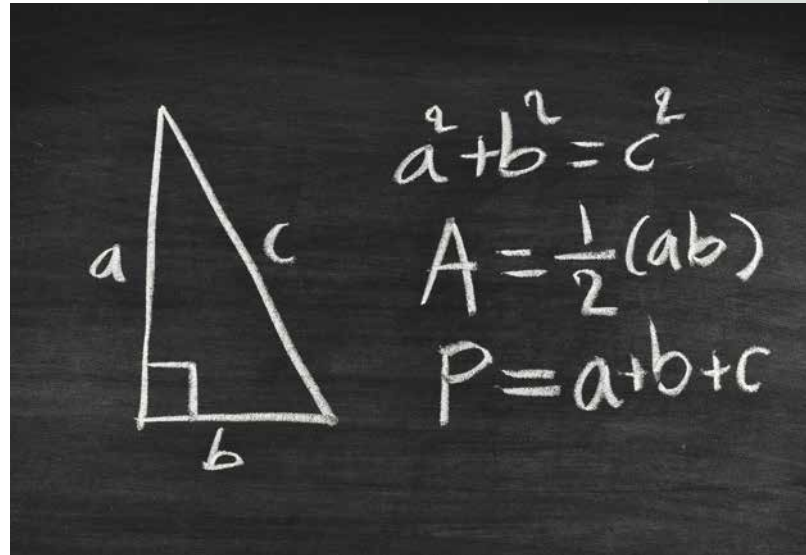
1 Use the words in the box to complete the abbreviations.

electronic • white • application • demand • interactive • own • on • bring • instant • your • content • device • service • board • messaging

- 1 e-book *electronic*-book
- 2 IWB _____
- 3 app _____
- 4 IMS _____
- 5 COD _____
- 6 BYOD _____

2 Match the words to the definitions.

- | | |
|---------------------------|-------------------------------------|
| 1 intranet | <input checked="" type="checkbox"/> |
| 2 distance learning | <input type="checkbox"/> |
| 3 platform | <input type="checkbox"/> |
| 4 e-mentor | <input type="checkbox"/> |
| 5 content on demand (COD) | <input type="checkbox"/> |
| 6 virtual classroom | <input type="checkbox"/> |
| 7 end-user | <input type="checkbox"/> |
| 8 online community | <input type="checkbox"/> |
| 9 profile | <input type="checkbox"/> |
| 10 blended learning | <input type="checkbox"/> |



- A learning that combines traditional teaching methods and classroom technology
- B the person that uses a product or a service; a customer
- C a system that connects computers in an organisation together to share information and send messages
- D a way of studying in which you receive lessons and information over the internet and study at home
- E an expert who helps students studying online
- F a group of people who use an internet service or belong to a particular group on the internet
- G the description of a person and their interests on a website
- H an online lesson where students interact, communicate and view presentations over the internet
- I the hardware and operating system that runs a computer
- J lessons and teaching material that can be accessed when the user needs it

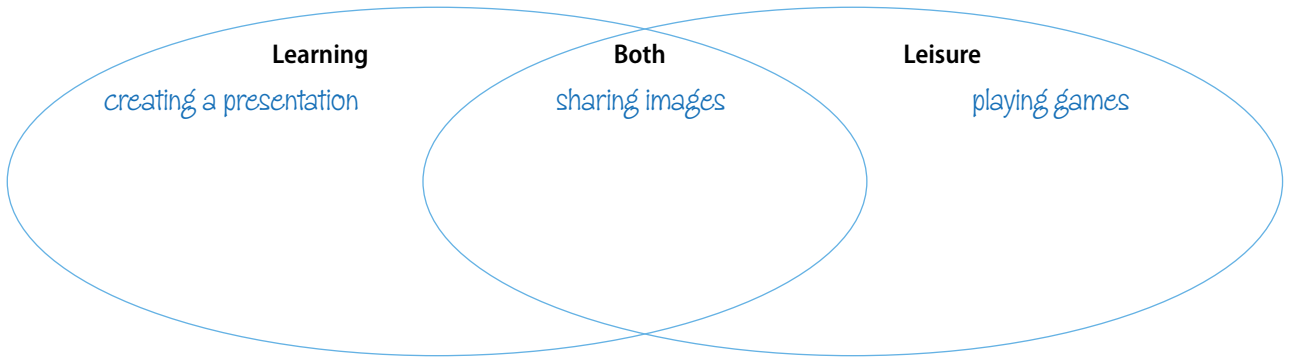
3 Sort the words in exercise 2 into the table.

People	Ways of learning	Other

VOCABULARY 2 – Learning and leisure

1 Complete the diagram with the internet activities.

creating a presentation • doing research • sharing images • recording a podcast • making a video •
 video streaming • playing games • chatting on social media • video conferencing •
 exchanging emails • viewing virtual tours of museums • downloading music



2 **PAIRWORK** Compare your diagram with a partner and discuss your answers.

3 Use one verb from the box to complete both sentences.

stream • write • share • create • record • access

- | | |
|--|---|
| <p>1 I use a keyboard to write emails and my blog.
We can use a pen or a finger to write on an IWB.</p> <p>2 We are going to _____ an interview with the head teacher on the tablet.
Jake managed to _____ the concert on his phone.</p> <p>3 I always _____ my photos with my friends on social media.
We are going to _____ our research with the others in our group.</p> | <p>4 Lisa and Rose want to _____ a presentation to show the class.
Harry is going to _____ a gallery of the class trip to put on the school web-site.</p> <p>5 You need a password to _____ the website.
We can _____ our results on Tuesday when the teacher has put them online.</p> <p>6 Do you ever _____ TV programmes?
Lots of people _____ music and podcasts from special websites.</p> |
|--|---|

4 Read the clues and complete the crossword.

	1	L		G	7														
					H		6												
	9						C												
	2	N	T				C												
							3	R		A		10							
	4	O	D	11			T												
	5		O						8				I						

ACROSS

- 1 Web logs
- 2 Talk and do things with other people
- 3 To receive data in a continuous flow
- 4 digital audio files
- 5 Bring your own device
- 6 Application
- 8 An electronic message

DOWN

- 7 Allow other people to see a photo/file
- 6 Find or see information on a computer
- 9 Moving visual content
- 11 Content on demand

EQUIPMENT AND ACTIVITY

Computers – timesavers or time wasters?



Most of us agree that we couldn't live without digital devices and the internet, but when they don't work, it's really frustrating! Instead of saving time we **waste** time. When things go wrong with the hard disk drive, the video card or the software, you'll probably have to call an expert, but some other problems are quite easy to **fix**. We asked an expert for some tips on things we can all do to make online life a bit easier.

1 _____
 Sometimes the problem is with the website or the download so check that first. If the problem is with your computer, delete files you don't need and uninstall programs you don't use. This will create free space and your system should **run** faster.

2 _____
 The cause of this problem could be updates - you often need to re-boot a computer after installing updates. It could also be mechanical: if your machine is noisy or very hot, you might need to clean the **fans**. If that doesn't solve the problem, run a virus scan.

3 _____
 First check that the printer has paper, **ink** and updated drivers. Then **unplug** it and then **plug** it in again. If the printer still doesn't work, double-click on the 'printer' icon. Then click on the printer menu and make sure that there isn't a tick in the 'use printer off-line' box because this blocks the printer.

Glossary

waste – <i>sprecare, perdere</i>	unplug – <i>staccare la presa</i>
fix – <i>aggiustare</i>	plug in – <i>attaccare la presa</i>
run – <i>funzionare</i>	faults – <i>errori</i>
fans – <i>ventole</i>	ISP (internet service provider) – <i>provider</i>
ink – <i>inchiostro</i>	

4 _____
 If you are unable to open an attachment it is probably because you haven't got the right software. Try writing the type of file in your browser to find out how to open it.

5 _____
 Wireless **faults** occur because of the router, the **ISP** or even your computer. A weak Wi-Fi signal can cause slowness and disconnections. You also need to check the wireless drivers are up-to-date.

6 _____
 Malware is the worst thing that can happen to a computer. The best thing to do is to protect your computer before an attack with a good antivirus. And another thing: be careful about opening emails and attachments because malware can enter your system in this way too.



7 _____
 If you get pop-ups when you're not browsing the internet, you've probably got a type of malware called 'adware', which can be difficult to remove. First, run anti-virus and malware scans but if that doesn't solve the problem, type the name of the advertiser and 'adware remover' into your browser and you will find a solution.

8 _____
 When you're playing on-line, lag can ruin your game. Unfortunately, there's not a lot you can do about it especially if you're connecting to distant servers. The best thing is to optimise your system, adjust the settings on your device and close all other programs and tasks.

READING COMPREHENSION

1 Read the article and match the headings to the paragraphs.

- | | |
|----------------------------------|-----------------------------------|
| A The Wi-Fi disconnects. | E The printer doesn't print. |
| B Lag is spoiling all my games | F I can't open email attachments. |
| C My computer is running slowly. | G There are pop-ups all the time! |
| D Help! I've got a virus. | H My laptop keeps re-starting. |

2 Read the article again and correct the information in the sentences.

1 When your computer is working slowly you should delete all your files.

2 You need to re-boot your computer before you install an update.

3 There are never mechanical problems on computers.

4 If your printer doesn't work you should run an anti-virus scan.

5 You need the right hardware to open an attachment.

6 Wi-Fi problems always happen when your computer is disconnected.

7 You should install anti-virus software after your device gets a virus.

8 It's easy to eliminate adware from a computer.

9 An anti-virus always removes adware.

10 There's a quick and simple way to stop lag when you're playing on-line.

3 Match the words in the box to the definitions, then find them in the text and check your answers.

server • laptop • malware • pop-up • browser • Wi-Fi

- 1 a program that enables you to access information on the internet
- 2 a computer you can carry around with you
- 3 a system for connecting electronic equipment without using wires
- 4 software that is designed to damage a computer, eg trojans, spyware, worms
- 5 a new window that opens quickly on your screen in front of what you're looking at
- 6 a central computer that other computers get information from

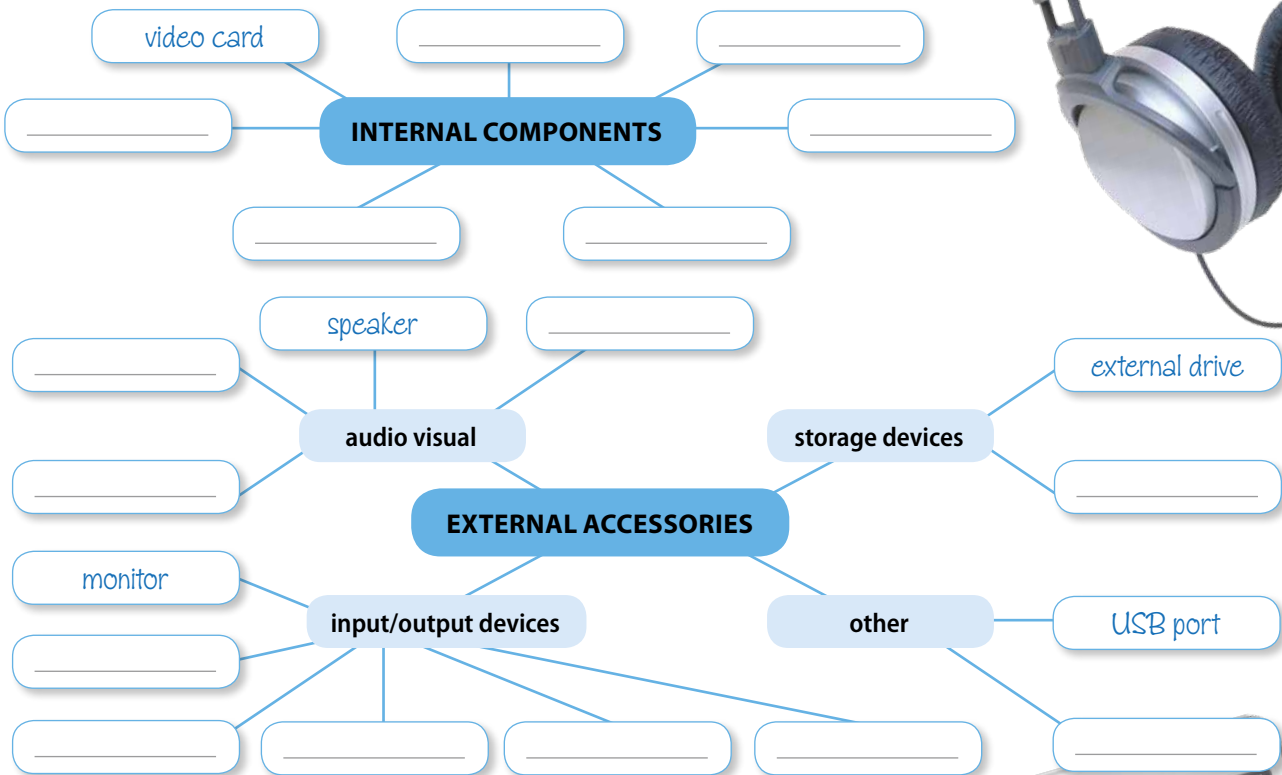
4 PAIRWORK

- 1 In pairs, write down 2 questions about problems you experience on your mobile device or the internet.
- 2 Swap the questions with another pair.
- 3 Write instructions to solve the problem.
- 4 Repeat with a different pair of students.

VOCABULARY 1 – Parts of a computer

1 Complete the mind maps with the words in the box.

hard disk drive • monitor • external drive • speaker • printer • USB flashdrive • scanner • video card • headphones • mouse • cable • touchscreen • mother board • USB port • ram • keyboard • CD/DVD drive • fan • microphone • sound board • webcam



2 Complete the abbreviations using the words in the box.

serial • random • disk (x2) • digital • memory • versatile • access • bus • compact • universal

- CD compact disk
- RAM _____
- USB _____
- DVD _____

3 Find 20 words in the puzzle about computers.

B	R	O	W	S	E	R	F	A	N	E	H
W	M	E	I	U	F	I	L	E	R	S	E
E	V	I	R	U	S	C	A	B	L	E	A
B	L	M	E	C	P	I	S	D	O	P	D
C	D	E	L	M	O	D	H	E	M	R	P
A	G	N	E	K	R	I	D	V	E	O	H
M	O	U	S	E	T	S	R	I	M	G	O
L	Y	O	S	P	E	K	I	C	O	R	N
A	H	S	U	D	R	I	V	E	R	A	E
G	E	S	C	A	N	N	E	R	Y	M	S

- 1 browser
- 2 _____
- 3 _____
- 4 _____
- 5 _____
- 6 _____
- 7 _____
- 8 _____
- 9 _____
- 10 _____
- 11 _____
- 12 _____
- 13 _____
- 14 _____
- 15 _____
- 16 _____
- 17 _____
- 18 _____
- 19 _____
- 20 _____



VOCABULARY 2 – Gaming

1 Put the words from the box into the table.

controller • gamer • action-adventure • console • newbie • avatar • game pad • boss • strategy • role-play • pro-gamer • enemy • handheld console • advergames

equipment	players	game genres	characters

2 Circle the word that **doesn't** collocate with the verbs.

- 1 AIM AT a target / a monster / a game
- 2 CHEAT IN a game / a newbie / a match
- 3 HIT / MISS the target / the game / the enemy
- 4 CAPTURE a base / a person / a score
- 5 RACE a kart / a car / a console
- 6 WIN / LOSE a race / a competition / an avatar
- 7 CHASE a car / a controller / a dragon



3 Read the clues and complete the puzzle. Discover the mystery word.

				1		M													
	2H																		
		3A																	
			4N																
		5C																	
6C																			
7C																			
		8I																	
			9R																

- 1 To point a weapon at something.
- 2 A type of games console.
- 3 A game that promotes a particular brand or product
- 4 A beginner at gaming.
- 5 A piece of hardware designed for playing video games.
- 6 To play in a dishonest or unfair way.
- 7 To catch a person or a place and take control of it.
- 8 The thing you aim at.
- 9 The number of pixels in an image.

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