

## Glossary

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- 9.1 data centre** (n) /'dɜ:tə sentə(r)/  
a resource network of computer servers for sharing, storing or processing information between users in an organisation • *The company expanded its data centre to cope with the growing number of products they were handling.* ❖ \_\_\_\_\_
- 9.2 (early) adopter** (n) /('ɜ:li) ə'dɒptə(r)/  
sb who starts using a new technology (when it is still new) • *The bank was an early adopter of two-step security log-in systems.* ❖ \_\_\_\_\_
- 9.3 the cloud** (n) /ðə klaʊd/  
a remote storage network for users to keep information or software programs online, which others may also have access to • *You can store photos and videos in the cloud to save space on your tablet.* ❖ \_\_\_\_\_

### Reading Pages 102–103

- 9.4 artificial intelligence** (n) /,ɑ:tɪfɪl ɪn'telɪdʒəns/  
computer systems that can use logic and imitate human thought processes • *Artificial intelligence can defeat even the most skilled players at board games, such as chess and Go.* ❖ \_\_\_\_\_ ❖ Abbrev: AI /,eɪ 'aɪ/
- 9.5 chatbot** (n) /'tʃætbɒt/  
a computer program designed to copy human speech to have a conversation with sb, usually online • *He asked his smartphone chatbot for information about the city sights and got some useful information.* ❖ \_\_\_\_\_
- 9.6 face recognition** (n) /feɪs rekəg'nɪʃn/  
ability of a device to recognise sb's face • *My passport photo was checked at the airport, using digital face recognition.* ❖ \_\_\_\_\_  
📎 Also: facial recognition
- 9.7 text editor** (n) /'tekst ɛdɪtə(r)/  
a computer program that enables you to make changes to a piece of writing • *He uses the text editor on his phone to change the wording of his files in the cloud.* ❖ \_\_\_\_\_
- 9.8 astounding** (adj) /ə'staʊndɪŋ/  
astonishing • *The GPS system can detect your location with astounding accuracy.* ➤ astound (v) ❖ \_\_\_\_\_

- 9.9 portable** (adj) /'pɔ:təbl/  
that can be carried or moved easily • *I have a portable phone charger that's very handy to use while travelling.* ➤ portability (n) ❖ \_\_\_\_\_
- 9.10 foresee** (v) /fɔ:'si:/  
predict • *None of the residents had foreseen the amount of damage the storm would do.* ➤ foreseeable (adj) ❖ \_\_\_\_\_
- 9.11 bot** (n) /bɒt/  
a computer program that does tasks, such as data searches, automatically on the internet • *Many of the emails I receive appear to be sent by bots rather than real people.* ❖ \_\_\_\_\_
- 9.12 automated** (adj) /'ɔ:təmeɪtɪd/  
done by machines or computers, not people • *Automated check-outs are common in UK supermarkets.* ➤ automation (n) ❖ \_\_\_\_\_
- 9.13 warehousing** (n) /'weəhaʊzɪŋ/  
the activity of storing large quantities of goods in a building before they are sold • *They have a small workshop where they make clothes to measure, thus avoiding the need for warehousing.* ➤ warehouse (n) ❖ \_\_\_\_\_
- 9.14 repetitive** (adj) /rɪ'petətɪv/  
done many times in the same way, so it is boring • *Ivana jokes with her workmates to make her factory job seem less repetitive.* ➤ repeat (v), repetition (n) ❖ \_\_\_\_\_
- 9.15 personalise** (v) /'pɜ:sənəlaɪz/  
change sth to make it suit sb's individual needs • *He has some family photos on his desk to personalise his workspace.* ➤ personal, personalised (adj) ❖ \_\_\_\_\_
- 9.16 algorithm** (n) /'ælgərɪðəm/  
a set of rules or formulae that a computer uses to calculate sth • *Smartphone apps use algorithms to personalise ads for users.* ❖ \_\_\_\_\_
- 9.17 appealing** (adj) /'æpi:lɪŋ/  
attractive • *The idea of working on a construction site in all weathers doesn't sound so appealing.* ➤ appeal (v, n) ❖ \_\_\_\_\_

- 9.18 healthcare** (n) /'helθkeə(r)/  
medical services • *Healthcare workers have been working under extreme pressure dealing with patients throughout the pandemic.*  
❖ \_\_\_\_\_
- 9.19 care** (n) /keə(r)/  
giving attention and looking after sb/sth  
• *Parents should give their children love and care.* > care (v), caring, careful, careless (adj)  
❖ \_\_\_\_\_
- 9.20 autonomous** (adj) /ɔː'tɒnəməs/  
which uses technology to be self-controlling without a human operator • *More safety tests have to be carried out on driverless vehicles before autonomous transport can be used more widely.* > autonomously (adv)  
❖ \_\_\_\_\_
- 9.21 majority** (n) /mə'dʒɔːrəti/  
the larger number of sth • *A large majority of students were against having online lessons.*  
❖ \_\_\_\_\_ 📎 Opp: minority
- 9.22 negotiate** (v) /nɪ'ɡəʊʃieɪt/  
make your way through or past obstacles on a difficult route • *He negotiated a path through the crowds of commuters to catch the morning train.* > negotiation (n), negotiable (adj)  
❖ \_\_\_\_\_
- 9.23 commute** (n) /kə'mjuːt/  
the journey to work and back • *She uses public transport on her daily commute to work in the city.* > commuting, commuter (n), commute (v) ❖ \_\_\_\_\_
- 9.24 efficiency** (n) /ɪ'fɪʃnsi/  
how well sth is done without wasting time, money, etc. • *When driven at a steady speed, the car has astounding fuel efficiency.*  
> efficient (adj), efficiently (adv)  
❖ \_\_\_\_\_
- 9.25 pervasive** (adj) /pə'veɪsɪv/  
which spreads to all parts of sth • *The pervasive influence of technology makes it harder to keep up with events without using the internet.* > pervade (v) ❖ \_\_\_\_\_
- 9.26 grid** (n) /grɪd/  
a network which connects a supply of sth  
• *Using GPS will ensure your location is connected to the information grid.*  
❖ \_\_\_\_\_
- 9.27 alert** (v) /ə'lɜːt/  
make sb aware of sth that may need attention  
• *The banking app will alert you to new payments made from your account.*  
> alert (adj, n), alertness (n) ❖ \_\_\_\_\_
- 9.28 prospect** (n) /'prɒspekt/  
the possibility of a future event • *He couldn't face the prospect of losing his job.*  
❖ \_\_\_\_\_

- 9.29 privacy** (n) /'prɪvəsi/  
the state of being alone and not having personal details known publicly • *She uses a fake profile on social media because she values her privacy.* > private (adj), privately (adv) ❖ \_\_\_\_\_
- 9.30 outweigh** (v) /aʊt'weɪ/  
be more important than sth else • *The costs of buying and maintaining an electric car could outweigh the benefits.* ❖ \_\_\_\_\_
- 9.31 capacity** (n) /kə'pæsəti/  
ability to do sth • *She has a great capacity for remembering dates and details of events.*  
❖ \_\_\_\_\_
- 9.32 willingness** (n) /'wɪlɪŋnəs/  
the quality of being willing to do sth • *The new teacher showed a willingness to adapt her methods to suit her students' needs.*  
❖ \_\_\_\_\_ ❖ Opp: unwillingness
- 9.33 universal** (adj) /juːnɪ'vɜːsəl/  
relating to everyone and everything • *Pollution is a universal issue that affects us all.*  
> universe (n), universally (adv)  
❖ \_\_\_\_\_

## Vocabulary Page 104

- 9.34 format** (n) /'fɔːmæt/  
the general design or type of sth • *I had to change the format of the document to make it readable.* > format (v) ❖ \_\_\_\_\_
- 9.35 export** (v) /ɪk'spɔːt/  
move computer data to another program or device • *She exported the videos saved on her computer to an external hard drive.*  
> export (n) ❖ \_\_\_\_\_
- 9.36 drop-down menu** (n) /,drɒp daʊn 'menjuː/  
a list that appears when selected on a computer screen from which you can choose an option • *By selecting an option on the drop-down menu, you'll see what's available on the shop's website.* ❖ \_\_\_\_\_
- 9.37 navigate** (v) /'nævɪgeɪt/  
find your way to a location on your computer or on the internet • *He found the official website confusing and difficult to navigate.*  
> navigator, navigation (n) ❖ \_\_\_\_\_
- 9.38 uninstall** (v) /,ʌnɪn'stɔːl/  
remove a software program from a computer  
• *In order to update the app, I had to uninstall the previous version.* ❖ \_\_\_\_\_  
📎 Opp: install

- 9.39 cut and paste** (expr) /kʌt ənd peɪst/  
select images or text to remove them from one document and put them in another • *You can cut and paste quotes from the news article to share on Twitter.* ❖ \_\_\_\_\_
- 9.40 hack** (v) /hæk/  
illegally access a computer • *He was sent to prison after he hacked the politician's email.*  
➤ hacker, hacking (n) ❖ \_\_\_\_\_
- 9.41 swipe** (v) /swaɪp/  
touch the screen on a device and move your finger quickly across it • *Swipe the phone screen to view the next photo.* ➤ swipe (n)  
❖ \_\_\_\_\_
- 9.42 refresh** (v) /rɪˈfrefʃ/  
click on a command to show the most recent version of a website or document • *You need to refresh the web page to see the changes you have made.* ❖ \_\_\_\_\_
- 9.43 scroll** (v) /skroʊl/  
move parts of a text on a computer screen up and down • *I had to scroll down to find the right page in the long PDF.* ➤ scroll (n)  
❖ \_\_\_\_\_
- 9.44 graphics** (n pl) /ˈɡræfɪks/  
digital designs or images • *She installed a more expensive card to see the graphics on the screen in better quality.* ➤ graphic (n, adj)  
❖ \_\_\_\_\_
- 9.45 USB port** (n) /ˌjuː es ˈbiː pɔːt/  
(Universal Serial Bus port) the part of a computer where other devices like printers, USB sticks, etc. can be connected  
• *I connected my printer to my laptop's USB port, but it's not coming up.* ❖ \_\_\_\_\_
- 9.46 RAM** (n, abbrev) /ræm/  
(Random-Access Memory) computer memory  
• *My PC doesn't have enough RAM to run both apps at the same time.* ❖ \_\_\_\_\_
- 9.47 screenshot** (n) /ˈskriːnʃɒt/  
an image of what is shown on a screen at a particular moment • *She took a screenshot of his offensive comments on social media and sent it to her lawyer.* ❖ \_\_\_\_\_
- 9.48 spreadsheet** (n) /ˈspredʃiːt/  
a computer program with rows and columns to list data, e.g. for keeping records of a project or finances • *The accountant created a spreadsheet to list the company expenses.*  
❖ \_\_\_\_\_
- 9.49 compatible** (adj) /kəmˈpætəbl/  
having similar or matching characteristics  
• *I had trouble finding a charger that was compatible with my old camera.*  
➤ compatibility (n), compatibly (adv)  
❖ \_\_\_\_\_ ⚠ Opp: incompatible

- 9.50 read-only** (adj) /ˌriːd ˈəʊnli/  
which can be seen and read, but not changed  
• *The document had been sent in read-only format, so I had to save it under a new name for editing.* ❖ \_\_\_\_\_
- 9.51 digital native** (n) /ˌdɪdʒɪtl ˈneɪtɪv/  
sb who has grown up with technology and can use it easily • *The generation born after 2000, could be regarded as digital natives, having grown up with technology.* ❖ \_\_\_\_\_

## Grammar Page 105

- 9.52 code** (v) /kəʊd/  
write a computer program using a set of numbers, symbols and words • *I learnt to code programs to build online games.* ➤ code (n)  
❖ \_\_\_\_\_
- 9.53 launch** (v) /lɔːntʃ/  
make a new product or service available to the public • *The company will launch a new version of the phone in a few months.*  
➤ launch (n) ❖ \_\_\_\_\_

## Listening Page 106

- 9.54 data analyst** (n) /ˈdeɪtə ˈænəlɪst/  
sb whose job is to collect and process information and statistics and then explain what this information means • *A good data analyst must know how to use information to help a company make business decisions.*  
❖ \_\_\_\_\_
- 9.55 games developer** (n) /geɪmz dɪˈveləpə(r)/  
sb whose job is to work with designers to turn ideas for games into playable games  
• *Her ambition is to become a video games developer at the end of her programming course.* ❖ \_\_\_\_\_
- 9.56 information security analyst** (n) /ˌɪnfəˈmeɪʃən sɪˈkjʊərəti ˈænəlɪst/  
sb whose job is to install software to protect computer networks and plan ways to keep these networks safe • *The bank employs information security analysts to prevent hacking attempts.* ❖ \_\_\_\_\_
- 9.57 software engineer** (n) /ˈsɒftweər endʒɪniə(r)/  
sb whose job is to use their knowledge of computer science and coding to develop new computer programs • *A software engineer has to think out of the box to design and code new programs.* ❖ \_\_\_\_\_

- 9.58 web designer** (n) /web dɪ'zaɪnə(r)/  
sb whose job is to plan and create internet sites, using text, sounds, pictures, graphics and video • *They hired a web designer to set up their new company website.* ♦ \_\_\_\_\_
- 9.59 internship** (n) /'ɪntɜːnʃɪp/  
a student training programme • *The science graduate did her internship at a government research lab.* ♦ \_\_\_\_\_
- 9.60 tutorial** (n) /tjuː'ɪɔːriəl/  
a short video, book or computer program with instructions on a particular subject  
• *The camera comes with an online tutorial to help you learn to use it.* > tutor (n, v)  
♦ \_\_\_\_\_

## Speaking Page 107

- 9.61 barcode** (n) /'bɑːkəʊd/  
a pattern of lines printed on packaging or stuck onto products, which gives information readable by computer • *I questioned the supermarket bill when the shop assistant scanned the barcodes on some things twice.* ♦ \_\_\_\_\_
- 9.62 search engine** (n) /sɜːtʃ 'endʒɪn/  
a program that finds data from a network  
• *This computer has Safari installed as the main search engine, but I'm used to using Google.* ♦ \_\_\_\_\_
- 9.63 co-ordination** (n) /kəʊˌɔːdɪ'neɪʃn/  
the ability to control the movements of your body parts • *Playing with toys helps children develop their co-ordination.* > co-ordinate (v), co-ordinator (n) ♦ \_\_\_\_\_ Also: coordination
- 9.64 addictive** (adj) /ə'dɪktɪv/  
so enjoyable you do not want to stop • *Some TV series can be very addictive if you get into the story and watch one episode after another.* > addict, addiction (n) ♦ \_\_\_\_\_
- 9.65 attention span** (n) /ə'tenʃn spæn/  
the amount of time sb can stay focussed on and interested in sth • *Young children can become bored quickly with an activity as they have a limited attention span.* ♦ \_\_\_\_\_

## Grammar Page 108

- 9.66 bank balance** (n) /'bæŋk bæləns/  
the amount of money in a bank account  
• *Towards the end of the month, his bank balance is always very low.* ♦ \_\_\_\_\_
- 9.67 faulty** (adj) /'fɔlti/  
not working properly or not perfectly made  
• *This USB port is faulty so there's no point connecting your USB stick.* ♦ \_\_\_\_\_
- 9.68 advisor** (n) /əd'vaɪzə(r)/  
an expert or instructor who gives advice on a particular thing • *I had to call a technical advisor to get my computer back online.*  
> advise (v), advice (n), advisable (adj)  
♦ \_\_\_\_\_ Also: adviser

### Jobs

advisor	information	web designer
data analyst	security analyst	IT consultant
games developer	software engineer	IT technician

## Use your English Page 109

- 9.69 keep (your) word** (expr) /ki:p (jɔː) wɜːd/  
do what you promised • *If Jack promised to help you, you can trust him to keep his word.* ♦ \_\_\_\_\_
- 9.70 keep a low profile** (expr) /ki:p ə ,ləʊ 'prəʊfaɪl/  
not attract attention • *The boss is looking for people to work overtime, so I'm keeping a low profile since I'm already working too much.* ♦ \_\_\_\_\_
- 9.71 keep track of** (expr) /ki:p trak əv/  
follow what is happening or where sb/sth is  
• *I've got so many photos and videos it's hard to keep track of where I've stored them.* ♦ \_\_\_\_\_
- 9.72 keep an eye out for** (expr) /ki:p ən aɪ aʊt fə(r)/  
look for sb/sth while doing sth else • *This flat isn't bad, but I'm keeping an eye out for one somewhere quieter.* ♦ \_\_\_\_\_
- 9.73 keep (your) cool** (expr) /ki:p (jɔː) ku:l/  
remain calm, not get angry • *I'm sure the technical advisor will fix your phone connection soon, so keep your cool!* ♦ \_\_\_\_\_
- 9.74 cutting-edge** (adj) /'kʌtɪŋ,edʒ/  
newest, most advanced • *Researchers are using cutting-edge technology to develop new vaccines.* ♦ \_\_\_\_\_
- 9.75 (it's) not rocket science** (expr) /('ɪts) not 'rɒkɪt 'saɪəns/  
(it's) not difficult to understand • *You'll soon get used to online shopping. It's not rocket science!* ♦ \_\_\_\_\_



- 9.76 light years (ahead)** (expr) /'laɪt jɪəz (ə'hed)/  
a very long distance (in front) • *Today's communication systems are light years ahead of what we had twenty years ago.*  
❖ \_\_\_\_\_
- 9.77 like a well-oiled machine** (expr) /'laɪk ə ,wel  
'ɔɪld mə'ʃiːn/  
efficiently • *With the advice of our new coach, our team is pulling together and running like a well-oiled machine.* ❖ \_\_\_\_\_
- 9.78 (be) on the same wavelength** (expr) /'(bi:) ɒn  
ðə seɪm,'weɪvlɛŋkθ/  
think in a similar way to sb else • *I love my parents, but I don't think we're on the same wavelength.* ❖ \_\_\_\_\_
- 9.79 reorganise** (v) /ri'ɔːɡənaɪz/  
change the order of things or how things are done • *Since I reorganised my filing system, it's easier to find things.* > reorganisation (n)  
❖ \_\_\_\_\_
- 9.80 IT technician** (n) /,aɪ 'tiː tek'nɪʃn/  
sb whose job is to install, maintain and repair hardware and software on computers and related devices • *The IT technician has installed new hardware on our office computers.* ❖ \_\_\_\_\_
- 9.81 plug in** (phr v) /plʌɡ ɪn/  
connect sth to an electricity supply or to an electronic device • *Simply plug in the USB to your laptop and download your photos.*  
❖ \_\_\_\_\_
- 9.82 be obsessed with** (expr) /bi əb'sest wɪð/  
think or worry about sth so much that you can't think about anything else • *He's obsessed with social media and it's interfering with his studies.* > obsession (n) ❖ \_\_\_\_\_
- 9.83 autonomy** (n) /ɔː'tɒnəmi/  
the ability to act or decide independently • *The office staff have no autonomy and are controlled by company management decisions.*  
> autonomous (adj), autonomously (adv)  
❖ \_\_\_\_\_
- 9.84 experimentation** (n) /ɪk'sperɪmen'teɪʃn/  
the activity of doing experiments to try out or test the effects of sth • *After some experimentation, they found the best layout for the desks and equipment in the office.*  
> experiment (n, v), experimental (adj)  
❖ \_\_\_\_\_
- 9.85 mechanics** (n pl) /mə'kænɪks/  
how sth works or is done; the technical aspects of sth • *I know little about the mechanics of how computers work, but that's why we have technicians.* > mechanical (adj)  
❖ \_\_\_\_\_

- 9.86 theoretical** (adj) /,θɪə'retɪkəl/  
which could possibly happen or exist  
• *On the course, we gained theoretical and practical knowledge of IT.* > theoretically (adv)  
❖ \_\_\_\_\_
- 9.87 sensor** (n) /'sensə(r)/  
an electronic device that detects sth • *The security camera has a sensor which switches it on when it detects movement in the room.*  
> sensory (adj) ❖ \_\_\_\_\_
- 9.88 monitor** (v) /'mɒnɪtə(r)/  
check the progress of sb/sth • *He kept an eye on the screen to monitor the progress of the files uploading.* > monitor (n)  
❖ \_\_\_\_\_

### Technology: nouns

algorithm	drop-down	RAM
artificial	menu	screenshot
intelligence	early adopter	search engine
barcode	face recognition	sensor
bot	format	spreadsheet
capacity	graphics	text editor
chatbot	grid	the cloud
data centre	port	USB port
digital native	privacy	

### Technology: verbs

code	launch	refresh
evolve	monitor	scroll
export	navigate	swipe
hack	plug in	uninstall

## Writing Pages 110–111

- 9.89 a wealth of** (expr) /ə welθ əv/  
a large amount of sth • *She has a wealth of experience in robotics.* ❖ \_\_\_\_\_
- 9.90 distraction** (n) /dɪ'strækʃn/  
sth that prevents sb from concentrating on sth else • *I need to focus on work without distractions like social media or phone calls.*  
> distract (v), distracting (adj) ❖ \_\_\_\_\_
- 9.91 worksheet** (n) /'wɜːkʃiːt/  
a document with a set of exercises for a student to do • *Our maths teacher gave us two worksheets with exercises to do for homework.*  
❖ \_\_\_\_\_
- 9.92 move with the times** (expr) /muːv wɪθ ðə  
taɪmz/  
adapt your ideas and ways of doing things to be up-to-date with modern trends • *I think your life will be easier if you move with the times and finally get a smartphone.* ❖ \_\_\_\_\_

- 9.93 critical** (adj) /'krɪtɪkl/  
essential • *International co-operation is critical for the project to succeed.* > critically (adv)  
❖ \_\_\_\_\_
- 9.94 respondent** (n) /rɪ'spɒndənt/  
sb who replies to sth • *In the survey, 50% of respondents said they checked their emails and instant messaging several times per day.*  
> respond (v), response (n) ❖ \_\_\_\_\_

### Expressions

be obsessed with	keep your cool
cut and paste	(it's) not rocket science
keep your word	light years (ahead)
keep a low profile	like a well-oiled machine
keep track of	on the same wavelength
keep an eye out for	move with the times

### Adjectives

addictive	compatible	read-only
appealing	critical	repetitive
astounding	cutting-edge	theoretical
automated	pervasive	universal
autonomous	portable	

- 9.97 budget** (v) /'bʌdʒɪt/  
to plan what you spend • *We'll have to budget carefully to be able to afford a holiday.*  
> budget (n) ❖ \_\_\_\_\_
- 9.98 paycheck** (n) /'peɪtʃek/  
salary or wages • *Your paycheck will be in the bank on the last day of the month.*  
❖ \_\_\_\_\_ Also: pay cheque (UK Eng)
- 9.99 outgoings** (n pl) /'aʊtgəʊɪŋz/  
the costs that you have to pay in a certain period • *His pay is barely enough to cover his monthly outgoings.* ❖ \_\_\_\_\_  
📎 Opp: income
- 9.100 live up to** (phr v) /lɪv ʌp tuː/  
be as good as sb hopes • *The camera on my new smartphone didn't quite live up to my expectations. My old one was better.*  
❖ \_\_\_\_\_

## Live well, study well

### Page 112

- 9.95 punctual** (adj) /'pʌŋktʃʊəl/  
being on time • *I'm surprised that Leo is late. He's usually punctual.* > punctuality (n), punctually (adv) ❖ \_\_\_\_\_
- 9.96 establish** (v) /ɪs'tæblɪʃ/  
create sth designed to last • *He feels much healthier since he's established a better sleep pattern.* > establishment (n), established (adj)  
❖ \_\_\_\_\_