# **9** High-Tech World

### Word Focus

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- **9.1 surveillance** (n) /sə'veɪləns/ when sb like the police watch a person or place because they think sth illegal may happen • *There is surveillance in most shops nowadays, so anything that happens can be seen on camera.*
- 9.2 guilty (adj) /'gɪlti/ responsible for doing sth illegal or bad
  Of course he's guilty. I know he stole the money. > guiltily (adv), guilt (n)
- 9.3 crime (n) /kraɪm/ an illegal act ● *If you commit a crime and get caught, you will go to prison.* ≻ criminal (n)
- 9.4 lose consciousness (expr) /luːz 'kɒn∫əsnəs/ go into a deep sleep because of injury or illness so that you do not understand what is happening around you ● When Tim hit his head really hard and lost consciousness, we took him to hospital.
- **9.5** set off (phr v) / set *p*f/ make an alarm ring • *The fire set off the smoke alarm in the house.*
- 9.6 alarm (n) /ə'laːm/ a loud noise that warns people that there is a danger or a problem • *We heard the car alarm and ran outside.* > alarm (v), alarmed (adj), alarming (adj)

# Reading

### pages 110-111

- 9.7 device (n) /dI'vaIs/ an object that is used for a particular purpose
  A satnav is a useful device for taxi drivers as it helps them to find addresses.
- 9.8 spy on (phr v) /spai bn/ watch secretly • In the war, enemies spied on each other to try to find out information that could help them win. ≻ spy (n)
- **9.9 GPS** (n) /dʒiː piː es/ global positioning system • We didn't get lost on holiday because our GPS told us where we were.
- 9.10 criminal (n) /'krımınl/ sb who breaks the law ● The police are looking for two criminals who have robbed five banks in the area.> crime (n)
- 9.11 detect (v) /dɪ'tekt/ find, discover ● The police can detect people who drive dangerously by reading their number plates on surveillance cameras. >> detection, detective (n)
- 9.12 wiper (n) /'waɪpə/ a blade with a rubber edge that removes rain or snow from a screen or window ● A car needs windscreen wipers or the driver can't see outside when it is raining. ➤ wipe (v)

- 9.13 novel (n) /'nøvl/ a long story in a book ● Tom Sawyer *is my favourite novel.* ➤ novelist (n)
- 9.14 publish (v) /'p∧blī∫/ produce a book or magazine and sell it
  J.K. Rowling couldn't find anyone to publish the first Harry Potter book.
  > publisher (n)
- 9.15 stadium (n) /'steɪdiəm/ a sports ground surrounded by many seats
  The stadium was full of fans waiting for the match to begin.
- **9.16 commit a crime** (expr) /kə'mɪt ə kraɪm/ do sth illegal • *A crime was commited at the bank this morning and thousands of euros were stolen.*
- 9.17 murder (n) /'m3tdə/ the crime of killing sb ● *Murder is a terrible crime.* ≻ murder (v), murderer (n)
- 9.18 case (n) /keis/ a crime that is being investigated by the police
  The police are investigation a murder case at the moment.
- 9.19 actually (adv) /'ækt∫uəli/ used to emphasise a fact • *I actually fell* asleep in the lesson because *I was so tired*. ≻ actual (adj)
- 9.20 put up sth (phr v) /put ∧p 's∧mθıŋ/ fix sth in a place so that people can see it
  I'm going to put up this ad on the class notice board.
- **9.21** in operation (phr) /ɪn ˌɒpə'reɪ∫n/ working • *The machine is still in operation. Can't you hear it?*
- 9.22 sign (n) /sain/ a piece of paper, metal or wood with information on it • We had to stop the car because there was a stop sign at the end of the road.
- **9.23 lifeguard** (n) /'laɪfgaːd/ sb who works at a beach or swimming pool and rescues people • *The lifeguard saw that a boy was in trouble in the pool and dived in to rescue him.*

#### 9.24 drown (v) /draon/ die because you have been underwater for too long and can't breathe ● *People who can't swim should wear a lifejacket so they don't drown if they fall in the water.*

9.25 notice (v) /'nəʊtɪs/ see or hear sb/sth ● He came into the room so quietly that nobody noticed him. ➤ notice (n), noticeable (adj)

- **9.26** put in sth (phr v) / pσt In 'sʌmθɪŋ/ fix sth like equipment into position • *We need to put in the fire alarm we bought.* Syn: install
- 9.27 concerned (adj) /kən'sɜɪnd/ worried about sb/sth ● *Her parents are concerned because she is not doing well at school.* ➤ concern (n)
- 9.28 lawyer (n) /'lɔːjə/ sb whose job is to advise people about the law, to write legal documents and to represent people in court ● You should ask your lawyer for advice; she'll tell you what the law says about your problem. > law (n)
- 9.29 increase (n) /'IŋkriIs/ a rise in number, amount or value ● There has been an increase in crime in this area.
   > increase (v), increasing (adj), increasingly (adv)
- 9.30 vote (v) /vəʊt/ mark a paper or raise your hand to choose sb for an official position • *Do you think people will vote for her as president?* ≻ vote, voter (n)
- 9.31 content (n) /'kpntent/ the subject matter or information in a book, programme, etc. ● I must study the content of this paragraph because I don't really understand it. ➤ contents (pl n), contain (v)
- **9.32** work out (phr v) /w31k a∪t/ find the answer to sth ● *I* didn't use a dictionary. I worked out the meaning of the word from the sentence.
- **9.33** stick (n) /st1k/ a thin piece of wood from a tree • She used a long stick to knock the apple down from the tree.

### Crime

| case<br>CCTV   | guilty<br>Iawyer |  |
|----------------|------------------|--|
| commit a crime | murder           |  |
| criminal       | poaching         |  |
| detect         | surveillance     |  |

## Vocabulary

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- 9.34 battery (n) /'bætərɪ/ sth inside an engine, a radio, an MP3 player, etc. that produces electricity to make it work
  My watch has stopped. It needs a new battery.
- **9.35** tablet (n) /'tæblət/ a thin computer with a touch screen • *Tablets are easier to carry around than laptops.*
- 9.36 satnav (n) /'sætnæv/ a computer that uses information from satellites to show or tell a driver of a vehicle how to get to a place ● You won't get lost if you get a satnav for your car. Satnav' is an abbreviation for 'satellite navigation'.

- 9.37 microchip (n) /'maɪkrəʊtʃɪp/ a tiny piece of silicon with electronic parts that is used in computers ● *The invention of the* microchip started the age of personal computers.
- **9.38** remote control (n) /rɪ'məʊt kən'trəʊl/ an object that you use to control equipment without having to touch it ● *Please change the channel with the remote control.*
- 9.39 USB stick (n) /juː es biː stɪk/ a memory device that can connect to a computer • I've put the photos on this USB stick so you can transfer them to your computer.
- 9.40 install (v) /In'stoIl/
  fix equipment into position so that it can be used; put a new program into a computer
  The electrician came to install our new cooker. > installation (n) Syn: put in
- 9.41 crash (v) /kræʃ/ fail (for computers) • *His computer crashed* and now he has lost all his work. ≻ crash (n)
- 9.42 log in (phr v) /lɒg ɪn/ connect • You can only log in to this bank's website with a secret password. ➤ login (n) Southeast Opp: log off
- **9.43** gadget (n) /'gædʒɪt/ a small device that does sth useful • USB sticks are great gadgets for transferring files easily from one computer to another.
- 9.44 revolutionise (v) /revə'lu:∫ənaız/ cause great change ● The Internet has revolutionised the way we communicate with people across the world. ➤ revolution (n), revolutionary (adj)
- 9.45 process (v) /'prəʊses/ deal officially with a document
  They will process all the job applications and then decide who the best candidates are.
  > process (n), processed (adj)
- **9.46 department** (n) /dɪ'paɪtmənt/ a part of a large business, university, organisation, etc. • *My mum works in the Physics Department at the university.*
- 9.47 progress (n) /'prəʊgres/ gradual improvement ● We hope progress will soon be made and a cure for this disease will be found. ➤ progress (v), progressive (adj)
- 9.48 lab (n) /læb/ a room where scientific experiments are done
  In this lab, we do research on cancer. SNB: short form of the word laboratory
- **9.49** word processing (n) /w31d 'prəʊses1ŋ/ using a computer to create a text • *My* dad uses his computer for word processing, not gaming.
- 9.50 edit (v) /'edɪt/ make changes to a text, an image, etc. • I've written my essay, but now I need to edit it. It's too long. ≻ editor (n)

- **9.51 development** (n) /dɪ'veləpmənt/ improvement • *In the twenty-first century there have been amazing developments in technology.* ≻ develop (v)
- 9.52 protest (n) /'prə∪test/ expressing strong disagreement with sth *I'm going to join a protest march against the* supermarket they want to build near the river.
  > protest (v), protester (n)
- 9.53 experiment (v) /ɪks'perɪmənt/ do a scientific test to find out if an idea is true
  Some researchers experiment on animals to test new medicines. ➤ experiment, experimenter (n)
- 9.54 experiment (n) /Iks'perImant/ a scientific test 

  The experiment we did in chemistry at school didn't work.
  > experiment (v), experimenter (n)
- 9.55 password (n) /'paisw3id/ a series of letters and/or numbers that you must type into a computer before you can use it • Grandpa has forgotten his password and now he can't use his computer.

### **Computer words**

| •           |                 |
|-------------|-----------------|
| data        | satnav          |
| GPS         | software        |
| interactive | tablet          |
| log in      | USB stick       |
| microchip   | virus           |
| password    | word processing |
| program     |                 |
|             |                 |

# Grammar

### page 113

- 9.56 smoke (n) /sməʊk/ white, grey or black gas that is produced by sth burning ● *There was so much smoke from the fire that we couldn't breathe.* > smoke (v)
- 9.57 show sb around (phr v) /∫əʊ 's∧mbədi ə'raʊnd/ go around with sb to show them a place • My aunt showed us around her new house.
- **9.58 factory** (n) /'fæktri/ a building where things are made • *They make cars in this factory.*
- 9.59 virus (n) /'vaɪrəs/ instructions that are put secretly into a computer program and that are designed to damage the computer and/or its data • *The computer virus destroyed all the data on his computer.* ≻ viral (adj)
- **9.60 CCTV** (n) /,sit sit tit 'vit/ a television system that is used to protect a place from crime • *The shop uses CCTV to prevent people from stealing.* <sup>®</sup> 'CCTV' is an abbreviation for 'closed-circuit television'.

- 9.61 manufacturer (n) /mænjʊ'fæktʃərə/ a company that produces sth • *Fiat is an Italian car manufacturer.* ≻ manufacture (v, n)
- 9.62 blood (n) / bl∧d/ the red liquid in the bodies of humans and animals • When I cut my head, there was a lot of blood. ≻ bloody (adj)
- 9.63 sample (n) /'saːmpl/ a small amount of sth that is examined to find out sth • The doctor took a sample of my blood to find out what was wrong with me.
  > sample (v)
- 9.64 universe (n) /ˈjuːnɪvɜːs/ all of space • Earth is just a small planet in an enormous universe. ≻ universal (adj)

# Listening

### page 114

- 9.65 laser (n) /'leɪzə/ equipment that produces a powerful beam of light • Light from a laser is very bright, so you shouldn't look at it.
- **9.66** model (n) /'mpdl/ a small copy of sth • There is a model of the Parthenon in the Acropolis museum.
- 9.67 eco-friendly (adj) /'iɪkəʊ-'frendli/ not harmful to the environment ● Paper bags are more eco-friendly than plastic ones as they can be recyled.
- 9.68 interactive (adj) /,Intər'æktīv/ an interactive computer program allows you to communicate with it and reacts to your actions ● *I love interactive computer games.* > interact (v), interaction (n)
- 9.69 participate (v) / pɑː'tɪsɪpeɪt/ take part ● John is a good student and likes to participate in class discussions. > participant (n)
- **9.70 try out** (phr v) /traɪ aʊt/ test • Dad tried out the Toyota Aygo before deciding whether to buy one or not.
- 9.71 attach (v) /ə'tæt∫/

  (1) join one thing to another; (2) connect a document or file to an email so you can send them together Don't forget to attach your new key to your key ring or you'll lose it.
  > attachment (n)
- 9.72 presentation (n) / prezn'tei∫n/ showing a piece of work, a new idea, etc. to a group of people • The teacher said my presentation was very interesting.
   > present (v)
- 9.73 solar-powered (adj) /'səʊlə-'paʊəd/ working by using energy from the sun ● There are some amazing solar-powered cars.
   > solar power (n)

- 9.74 power (v) /'paʊə/ provide a machine with energy to make it work
  The energy of the sun can be used to power this machine. > power (n), powerful (adj), powerfully (adv)
- **9.75** green (adj) /gri1n/ connected with the protection of the environment • *People should use more green* forms of energy.

# Speaking

### page 115

- **9.76** on a daily basis (phr) / pn ə 'deɪli 'beɪsɪs/ done or happening every day • *The scientist checks the animals in the lab on a daily basis.*
- 9.77 headphones (pl n) /'hedfəunz/ equipment that you wear in or over your ears so that you can listen to music, the radio, etc.
  Please use your headphones to listen to music late at night.
- 9.78 air conditioning (n) /eə kən'dı∫ənıŋ/ a system that cools the air in a building ● *It's* very hot today, so turn on the air conditioning.
   > air condition (v)
- **9.79 microwave oven** (n) /'maɪkrəweɪv 'ʌvn/ a device that cooks food quickly using electromagnetic waves • *I put my supper in the microwave oven to heat it and in two minutes it was ready.*
- 9.80 security door (n) /sɪ'kjʊərɪti dɔː/ a strong door that locks well so nobody can break in ● *It is safer to have a security door as there are so many burglaries these days.*
- 9.81 media centre (n) /'miːdiə 'sentə/ a library that has audiovisual media as well as books, magazines and other printed material
  The library has a new media centre.

# Vocabulary

page 116

- **9.82** under threat (phr) /'∧ndə θret/ in danger • Many bird and animal species are under threat because of the loss of natural habitats.
- **9.83 look up sth** (phr v) /lʊk ʌp 'sʌmθɪŋ/ look for information in a dictionary, book or the Internet • You can look up a word in a dictionary if you don't understand it.
- 9.84 expert (on) (n) /'eksp3tt (vn)/ sb who has a lot of knowledge about sth
  My cousin is an expert on computing and is studying IT at university.
- **9.85 lead to** (phr v) /liɪd tuɪ/ cause • *Eating too much sugar and fat can lead to health problems.*
- **9.86 cyber tracker** (n) /'saɪbə-'trækə/ sb who finds and follows animals using technology • *The cyber tracker took photos of the elephants to record their position.*

- 9.87 herd (n) /h3:d/ a group of animals of the same type that live together ● There's a herd of cows in that field. > herd (v)
- **9.88** giraffe (n) /dʒɪ'rɑːf/ an African animal with a very long neck and long legs • *The giraffe ate the leaves at the top of the tree.*
- 9.89 conservationist (n) /kønsə'veı∫ənıst/ sb who wants to protect the environment
   Conservationists organise acitivities for children to learn about the importance of protecting the natural environment.
   > conserve (v), conservation (n)
- **9.90 turn to sb** (phr v) /t3:n tə 's∧mbədi/ go to sb for help, advice, etc. • When I got into trouble, I turned to my best friend for help.
- **9.91** animal tracker (n) /'ænɪml 'trækə/ sb who finds and follows animals • *The animal trackers found some footprints in the sand and followed them to a group of lions.*
- **9.92** software (n) /'spftweə/ computer programs • Because she had some trouble with her computer, she had to reinstall all the software.
- 9.93 observation (n) /øbsə'veɪ∫n/ a comment based on sth that was seen, read or heard • *He wrote down his observations in a notebook and later typed them into his computer.* ➤ observe (v), observer (n)
- **9.94** data (n) /'deɪtə/ information • We put all the data in a document on the computer.
- 9.95 poaching (n) /'pəʊt∫ɪŋ/ hunting animals illegally ● The African elephant is in danger because of poaching.
   > poacher (n), poach (v)
- **9.96** issue (n) /'IJuː/ an important topic • Let's have a serious discussion about the issue of surveillance.
- 9.97 independent (adj) /,IndI'pendənt/ able and free to do things without help from others • Marcus is only fifteen, but he's very independent. >> independently (adv), independence (n) <sup>®</sup> Opp: dependence

## Grammar

### page 117

- 9.98 pleasant (adj) /'pleznt/ enjoyable ● We had a pleasant day at the beach. >> pleasantly (adv), pleasure (n), please (v) <sup>®</sup> Opp: unpleasant
- 9.99 state of the art (adj) /steɪt əv ðiː 'aːt/ very modern • This car has state of the art technology and it is the best on the market at the moment.

- 9.100 colleague (n) /'køliːg/ sb you work with ● *My* colleague checked my report for me before I gave it to my boss.
- **9.101** hand in (phr v) /hænd In/ give sth to a teacher • '*Please hand in your homework tomorrow,*' said the teacher.
- **9.102** think for yourself (phr v) /θıŋk fə jɔː'self/ form your own opinions without depending on others • *The most important lesson in life is learning to think for yourself.*
- **9.103 nowadays** (adv) /'naʊədeɪz/ at the present time, not the past • *Nowadays most people can use a computer.*
- **9.104 lips** (n) /lɪps/ the two soft edges at the opening to your mouth ● *She had dark hair, brown eyes and red lips.*
- **9.105** cheer on (phr v) /t∫1ər pn/ shout to encourage sb in a race, competition, etc. • *The fans cheered on their teams.*

# Writing

### pages 118-119

- 9.106 program (n) /'prəʊgræm/ instructions in code that control the way a computer operates ● *He writes computer programs for a living.* > program (v)
- 9.107 operation (n) /ppə'reı∫n/ cutting into sb's body to repair a part or remove it ● Nancy broke her arm badly in three places and she needs an operation to fix it. >> operate (v)

# Video 9 Mars

# Rovers

- page 120
- 9.108 advance (n) /ədvaɪns/ progress ● Advances in medicine mean that many diseases today can be cured and are no longer deadly. ➤ advance (v)

- 9.109 measure (v) /'meʒə/ find the size, quantity of sth using standard units • Each year the amount of rain that falls is measured and the results are put into a database. ➤ measurement (n)
- **9.110** image (n) /'ImIdʒ/ a picture • The satellite took some wonderful images of the Earth from space.
- 9.111 volcano (n) /vpl'keɪnəʊ/ a mountain from which lava and gases come out • The volcano erupted and lava came down the side of the mountain.
   > volcanic (adj)
- **9.112** Mars rover (n) /mais 'rəʊvə/ a robot used to explore Mars • The Mars rovers sent back a lot of data to Earth, which scientists analysed.
- **9.113** bring sth up (phr v) /brɪŋ 'sʌmθɪŋ ʌp/ mention a subject • *I'd like to bring up an important subject for discussion.*
- 9.114 alternative (adj) /ɔːl'tɜːnətɪv/ that can be used instead of sth else
  I think your idea is good, but I have an alternative idea that is better. ➤ alternative (n)
- 9.115 operate (v) /'bpəreɪt/ make sth work • Greg works in a car factory and operates the machines which build the cars. ➤ operation (n), operator (n)
- **9.116** pattern (n) /'pætən/ an arrangement of colours or shapes that is repeated • *Patterns on the surface of the* moon used to make people think the moon had a face.
- 9.117 rough (adj) /r∧f/ not smooth • The road is rough and you need a jeep to travel on it. > roughly (adv), roughness (n)
- 9.118 surface (n) /'s3:fis/ the outside or top layer of sth
  The ball floated on the surface of the water.