

Dictionary skills: Science and technology

Author: Tim Bowen

Level: Pre-intermediate to advanced

Age: 16+

Time needed: 45–60 minutes

Subject: Dictionary skills / vocabulary development

Summary: These worksheets are designed for use with the *Macmillan English Dictionary for Advanced Learners (MED 2)* to give learners practice in using the dictionary to check meaning and for vocabulary development.



Exercise 1: Compounds

The answers to these will not be found under the entries for the nouns themselves but in the associated compound words found immediately after each entry. For example, the entry for *file* gives definitions for different uses of the word as well as expressions containing the word *file*. Compounds beginning with *file* can be found after the entry for *file*, e.g. *file extension*, *file manager*, *file server*.

Exercise 2: Acronyms and abbreviations

This exercise could be done as pair work, with the learners guessing some of the answers and then checking them in the dictionary.

Exercise 3: Verb + noun collocations

Some of the answers can be checked by looking up the verbs in bold but the answers can also be found by looking up the nouns (e.g. *hypothesis*).

Exercise 4: Expressions with prepositions

This could be done as a pair or small group exercise. Listen to their suggested answers but do not correct any mistakes. Allow them to check their answers in the dictionary. They may need some brief guidance as to where to look for the answers. These are shown in bold type as part of the entry for the key word in each case (e.g. *under construction*, *in theory* and so on). Note that the key word may precede the preposition (e.g. *proportional*) or follow it (e.g. *theory*).

Exercise 5: Idioms

Before you ask your learners to do this exercise, highlight which word or words are underlined in each idiom and ask them what type of word they are. In some cases the whole phrase can be found as a dictionary entry (e.g. *safety valve*).

Exercise 6: Phrasal verbs

Ask learners to work in pairs or small groups to discuss the possible answers. Then ask them to check in the dictionary. Note that all of these phrasal verbs can be found under the entries for the verbs and not under the entries for the particles (*off*, *up*, etc).

Dictionary skills: Science and technology

1 Compounds

Find the nouns that go with these other nouns to match the definitions.

Example: search _____ – *a computer program used for searching for information on the internet*
(search **engine**)

1. computer _____ – *the study of how computers work and what they can be used for*
2. screen _____ – *a computer program designed to protect a monitor screen from damage*
3. disk _____ – *the part of a computer that reads information from a disk or records information onto a disk*
4. mouse _____ – *a piece of soft material that you move a computer mouse around on*
5. computer _____ – *someone who writes computer programs*
6. file _____ – *a computer program that organizes computer files into groups and shows you where they are when you need to find them again*
7. internet _____ – *a system that allows you to use the internet to communicate with your bank, check your account, pay bills, etc.*
8. web _____ – *a software program that is used for finding and looking at pages on the internet*

2 Acronyms and abbreviations

Complete the definitions by filling in the missing word.

1. SMS short message _____
2. NASA National Aeronautics and _____ Administration
3. URL uniform _____ locator
4. UHF ultra high _____
5. RAM random access _____
6. ATM automated _____ machine
7. SUV sport utility _____
8. ISP internet service _____

Dictionary skills: Science and technology

3 Verb + noun collocations

Complete the sentences using the nouns in the list. Note that some of these may be in the plural.

data	experiment	energy	product
software	flow	hypothesis	damage

- Gregor Mendel discovered the principles of genetics after **conducting** _____ on plants.
- This virus can **cause** enormous _____ to the immune system.
- The drug **regulates** the _____ of blood to the brain.
- The analysis was based on _____ **collected** in the field.
- The research findings **support** the _____ that the Gulf Stream is slowing down.
- This _____ was not **tested** on animals.
- You can **download** this _____ for free.
- Insulating your home is a good way to **save** _____.

4 Expressions with prepositions

Fill the gaps in these sentences using prepositions. Check your answers in the dictionary.

- Scientists have carried out extensive **research** _____ the effects of these drugs.
- A new high-speed rail link is _____ **construction**.
- The idea is good _____ **theory** but may not work in practice.
- A positron has a mass **equal** _____ that of an electron.
- The volume occupied by a gas is directly **proportional** _____ its absolute temperature.
- Scientists are _____ **the process of** developing a new anti-AIDS drug.
- The **relationship** _____ computer science and software engineering is a contentious issue.
- Scientists are studying the **effect** of the chemical _____ the environment.

Dictionary skills: Science and technology

5 Science and technology idioms

Match these science-related idioms with their meanings. Then check your answers by looking up the underlined words in the dictionary.

1. cutting edge
 2. on the same wavelength
 3. a well-oiled machine
 4. rocket science
 5. a litmus test
 6. get your wires crossed
 7. a number cruncher
 8. a safety valve
- a. a system that operates without problems
 - b. an event, decision, etc. that provides a clear sign of what someone is really like or what their intentions are
 - c. someone whose job involves working with numbers
 - d. become confused when talking to someone because you each think the other person is talking about something else
 - e. the most modern and advanced point in the development of something
 - f. a way of getting rid of strong emotions without harming anyone
 - g. a difficult activity that you need to be intelligent to do or understand
 - h. able to understand the way another person thinks

6 Phrasal verbs

Fill the gaps using the correct form of these verbs to complete the sentences:

give	come	kill	guard
burn	break	pick	filter

1. Like all natural substances, it is easily _____ down by bacteria.
2. If a piece of electrical equipment _____ out, it gets too hot and stops working.
3. Technicians are working hard to _____ up with a solution to the problem.
4. Reed beds are used to _____ out most of the pollution.
5. When they die, plants _____ off gases such as carbon dioxide and methane.
6. Fibre in the diet is thought to _____ against heart disease.
7. Antibiotics may _____ off beneficial bacteria.
8. I don't think this radio can _____ up foreign stations.

Dictionary skills: Science and technology

KEY

1 Compounds

1. science
2. saver
3. drive
4. mat
5. programmer
6. manager
7. banking
8. browser

2 Acronyms and abbreviations

1. service
2. space
3. resource
4. frequency
5. memory
6. teller
7. vehicle
8. provider

3 Verb + noun collocations

1. experiments
2. damage
3. flow
4. data
5. hypothesis
6. product
7. software
8. energy

4 Expressions with prepositions

1. into
2. under
3. in
4. to
5. to
6. in
7. between
8. on

5 Science and technology idioms

1. e
2. h
3. a
4. g
5. b
6. d
7. c
8. f

6 Phrasal verbs

1. broken
2. burns
3. come
4. filter
5. give
6. guard
7. kill
8. pick