OXFORD ENGLISH FOR CAREERS

Student's Book

TECHNOLOGY 1

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Start making connections

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Contents

1 Technology and society

Switch on

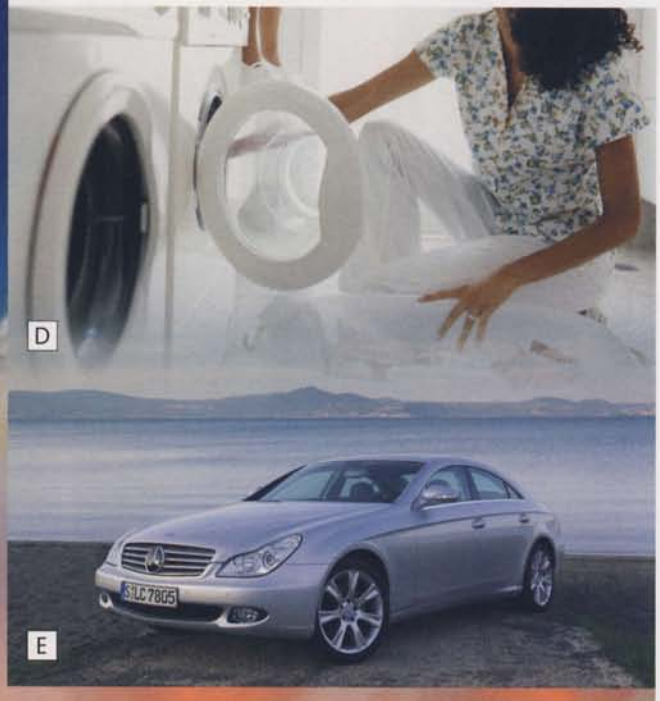
1 Look at pictures A–F. They show ways in which technology affects how we live. Identify the different items in each picture.

2 Match the effects of technology to pictures A–F. Decide which effects are positive, and which are negative.

1 fast travel
2 river pollution
3 nuclear missiles
4 less housework
5 cheap power
6 noise pollution
7 road deaths
8 space exploration
9 overweight people
10 global warming
11 easy communication
12 mass entertainment

EXAMPLE

Picture A *8 (Positive effect)* *3 (Negative effect)*



In this unit

- speaking about the way technology affects our lives
- listening to people describing the effects of new technology on their work
- comparisons with adjectives and adverbs
- how to stress technical words
- how to group and remember new terms

Listening

Technology and work

1 🎧 Listen to four people describing the effects of new technology on their work. Match each person to his / her job.




1	Vera	a	shop owner
2	Christine	b	doctor
3	Gupta	c	musician
4	Anton	d	teacher

2 🎧 Listen again. Decide whether each person makes comments which are positive, negative, or both. Tick (✓) the correct column(s).

		Positive	Negative
1	Vera	____	____
2	Christine	____	____
3	Gupta	____	____
4	Anton	____	____

3 🎧 Work in pairs. Listen to the shop owner again and write down what he says. Help each other to make a complete and accurate version. Then compare with the Listening script on p.124.

Language spot

Comparisons with adjectives and adverbs

- The speakers are comparing how things are *now* with how they were *before*:
*It's much **faster**.*
*It's more **realistic**.*
*It's **safer**.*
*My sales are much **worse**.*

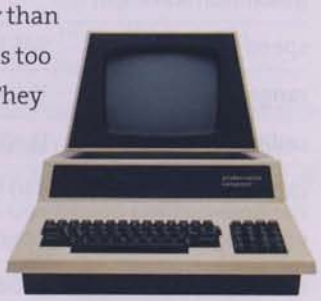
- We make comparisons with short adjectives like *fast* by adding *-er* → *faster*.
With long adjectives like *realistic*, we use *more* and *less* → ***more / less** realistic*.
Note the irregular forms: *good* → *better* and *bad* → *worse*.

- Some adverbs are the same as adjectives, for example *early, fast, high, late*. With these adverbs, we use *-er* → *earlier, faster, higher, later*.
With adverbs ending in *-ly*, we use *more* and *less*. We can add *much* to emphasize the comparison:
*With a computer I can work **more efficiently** and **much faster**.*

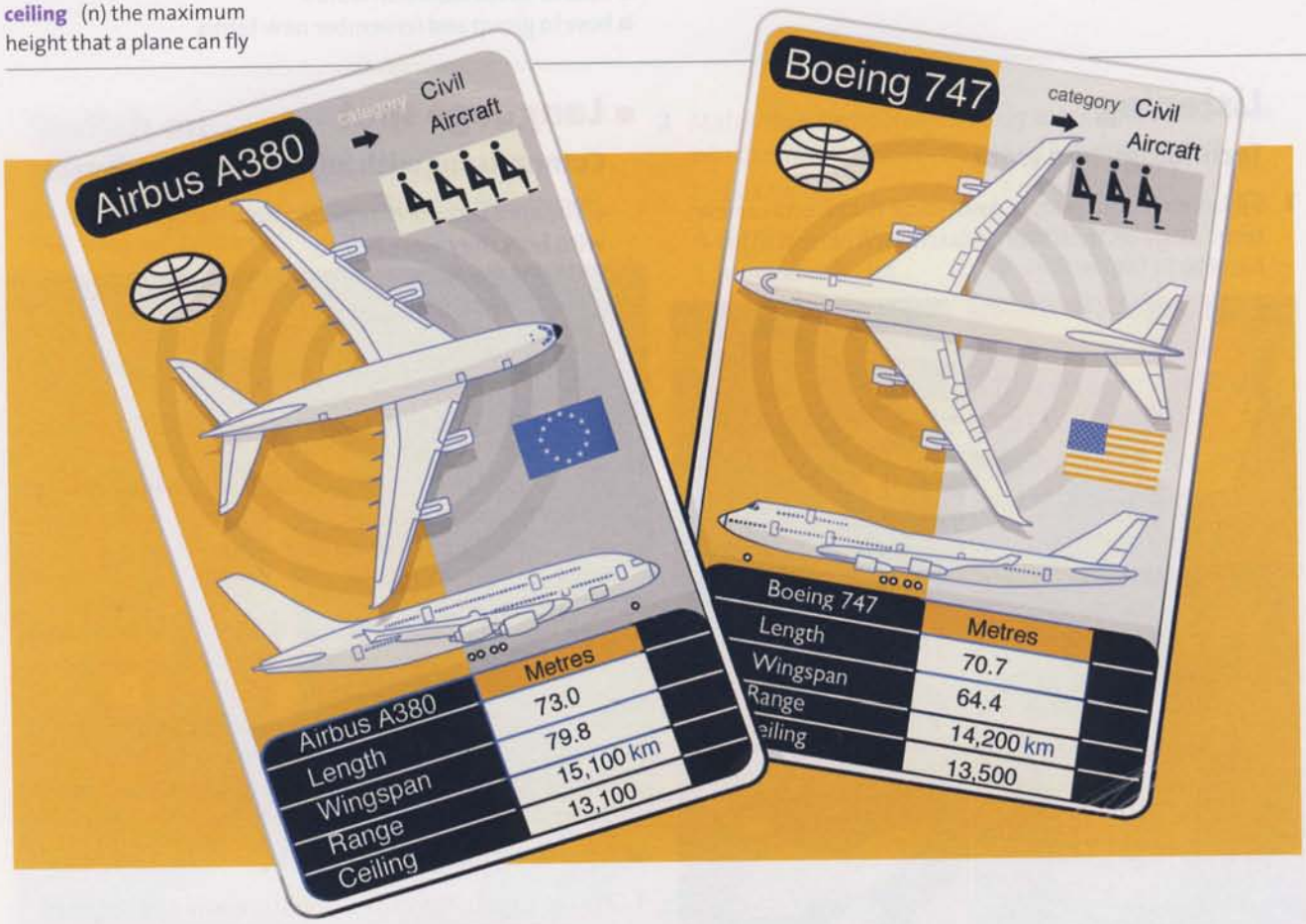
» Go to **Grammar reference** p.115

1 Fill the gaps to compare computers now and ten years ago. Use the adjectives in brackets.

Computers today are *more powerful* [1] (powerful). They operate _____ [2] (fast) and they have much _____ [3] (large) memories. Because they contain more electronics, the cases have become _____ [4] (big) but the flat-screen monitors are _____ [5] (heavy) and fit into a _____ [6] (small) space on your desk. Computers are also _____ [7] (cheap). The price is _____ [8] (low) now than in the past. The programs too are _____ [9] (good). They are _____ [10] (sophisticated) and you can work much _____ [11] (efficiently).



1-class (adj) not divided into first, business, and economy classes
range (n) the distance that a plane can travel before it needs more fuel
ceiling (n) the maximum height that a plane can fly



2 Look at the diagrams of the Airbus A380 and the Boeing 747. Then study the table and complete sentences 1–8 comparing the two planes.

	Airbus A380	Boeing 747
length	73m	70.7m
wingspan	79.8m	64.4m
weight (empty)	275,000 kg	180,800 kg
weight (maximum take-off)	548,000kg	397,000 kg
speed (maximum)	945 kph	1,127 kph
range	15,100 km	14,200 km
ceiling	13,100m	13,500m
capacity (maximum)	840 (**1-class**)	550 (**1-class**)
engines	4 turbofans	4 turbofans
thrust	1,208 kN	1,096 kN
first introduced	2005	1989

1 The Airbus is _____ (long) than the Boeing.
2 The Boeing is a little _____ (short) than the Airbus.
3 The Airbus can carry a _____ (heavy) weight than the Boeing.
4 The Boeing is _____ (fast) than the Airbus.
5 The Airbus can fly _____ (far) than the Boeing.
6 The Boeing can fly _____ (high) than the Airbus.
7 The Airbus engines are _____ (powerful).
8 The Airbus was introduced _____ (recently).

3 Now write three more sentences of your own comparing the two planes.

Reading

Branches of technology

Read headlines 1–8 from recent news stories. Match the headlines to the correct branch of technology a–h.

1 Mice given human brain cells

2 15 billion text messages sent every month

3 USA developing a weapon to fire microwaves

4 MAJOR HACK ATTACK

5 World's tallest bridge opens

6 APPLE INTRODUCE WORLD'S LARGEST SCREEN

7 Sunlight will power spacecraft

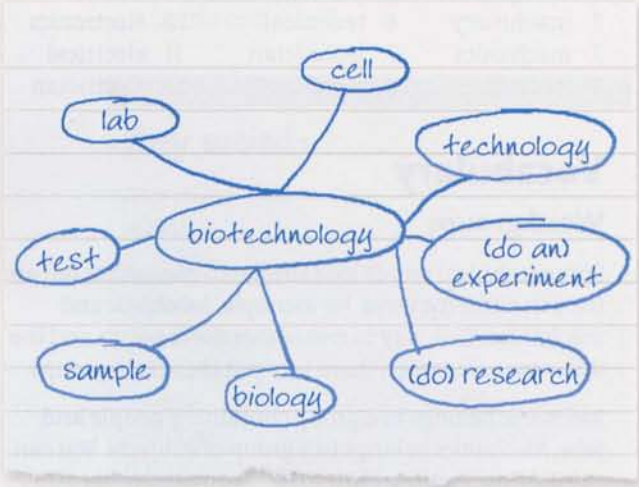
8 New ways to make shoes

a biotechnology
b defence
c crime
d information technology
e manufacturing
f civil engineering
g telecommunications
h transport

Vocabulary

Recording new words

One effective way of recording key words used in technology is to group them into **word sets**. Study the example of how to group words related to *biotechnology*.



1 Work in pairs. Make word sets for each of the branches of technology in *Reading*.

Another way to remember key words in technology is to make **word cards**. Study the example of a word card.

Information technology

Key word	Translation
memory	
Part of speech	Pronunciation
noun (uncountable)	/'meməri/
Sample sentence	Words often used with the key word
Memory is used for programs and data	chip, slot, card, random access

2 Design your own word cards to help you remember your technical vocabulary. Make word cards for six of the words you listed in **1**. Use a good English–English dictionary, such as *Oxford Wordpower*, to help you.

Gadget box

A smoke detector is a safety device to detect smoke in the air. There are two types: an *optical detector* which operates when smoke disturbs a beam of light, and an *ionization detector* which operates when very small particles of smoke interrupt an electric current.

Where is the best place to put a smoke detector in a house?

ABS (n) Antilock Braking System

Pronunciation

Word stress

Listen to the technical words and mark the stressed part of each word.

EXAMPLES *engine* *engineer*

1	machine	5	mechanical	9	electron
2	machinery	6	technical	10	electronics
3	mechanics	7	technician	11	electrical
4	mechanic	8	technology	12	electrician

Vocabulary

Word groups

Some technical words look similar to each other but are used in different ways, for example, *mechanic* and *mechanics*. One way to remember these words and the differences between them is to put them into groups.

Mechanic belongs to a group containing **people and jobs.** *Mechanics* belongs to a group of **subjects**. You can think of your own groups to help you remember other technical terms.

Put the list of common technical words into groups using the table below.

mechanic	mechanics	mechanical	mechanism
electron	electronic	electronics	
technical	technology	technician	
electricity	electrical	electrician	
~~engine~~	~~engineer~~	~~engineering~~	

Subjects	People and jobs	Things	Adjectives
engineering	*engineer*	*engine*	*engineering*

Pairwork

Work in pairs, A and B. Each of you has information about one of the launch systems in the pictures. Exchange information with your partner by asking and answering questions and complete the table.

Student A Go to p.110.

Student B

	Student A's launch system	Student B's launch system
	Ariane 5	Proton M
Country		Russia
First launched		1965
Height		53m
Diameter		7.4m
Engines		6
Payload GTO (geostationary transfer orbit)		6,000 kg
Mass		456,400 kg
Lift-off thrust		1,745 kN

Project: class survey

1 Study the list of the ten most important technological innovations of the past 60 years. Work in groups, and order them 1 to 10 (1 = most important, 10 = least important). Then ask your teacher, and compare with results from a recent survey in the UK.

Innovation	Order
ABS brakes	____
Air bags	____
Credit cards	____
Digital camera	____
DNA testing	____
Laser eye surgery	____
Long-life, low-energy light bulbs	____
Microwave oven	____
Mobile phone	____
Smoke detector	____

2 Find out from other students what they consider the most important technological innovations in their lives. Make a list of the ten most important for your class.

Webquest

Find out the year of introduction for each of the innovations in the *Project: class survey*. Compare answers with other students in your class.

EXAMPLE *Smoke detector* 1969

These search engines and this site may help:

- www.google.com
- www.askjeeves.co.uk
- www.wikipedia.org

Checklist

Assess your progress in this unit.
Tick (✓) the statements which are true.

- I can talk about the positive and negative effects of technology
- I can make comparisons with adjectives and adverbs
- I know three ways for recording and remembering new words
- I know how to stress common terms in technology
- My reading and listening are good enough to understand most of each text in this unit

Key words

Adjective
realistic

Nouns
exploration
global warming
innovation
missile
pollution
power station
rocket
satellite receiver
smoke detector
take-off
thrust

Verbs
affect
download
hack

Note here anything about how English is used in technology that is **new** to you.