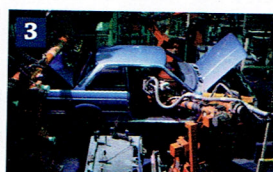
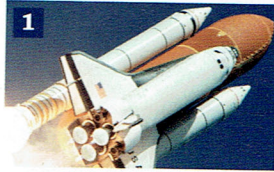


VOCABULARY AND SPEAKING

VOCABULARY

Sciences

1 Work in pairs. Describe the photos. How are they related?



2 Work in pairs. Which quotation best describes how you feel about science? Explain why.

Adam

Science? It's my least favourite subject at school.

Pam

I can't imagine my life without science. It's in my computer, in my mobile phone and ... in my cereal.

Jonathan

Science is my religion – I believe in it but I don't quite understand it.

3 Use the words in the box to answer questions 1–6. There are some extra words which you do not need to use.

genetics anthropology political science astrophysics biotechnology
linguistics robotics mathematics information processing botany

Which area of science:

- 1 gathers, stores and retrieves recorded information? _____
- 2 studies government and politics? _____
- 3 studies the ways in which different characteristics are passed from one generation to another? _____
- 4 studies, designs and manufactures robots? _____
- 5 studies the physical and chemical structure of the stars, planets, etc.? _____
- 6 studies language? _____

Which areas of science are shown in the photos in exercise 1?

4 Write definitions for the areas of science that you did not use in exercise 3.

Mathematics is a science which studies ...

5 Choose the correct word to complete each sentence.

1 *research / experiment*

- a _____: a careful study of something to discover new facts or information about it
- b _____: a scientific test to see what happens and to gain new knowledge

2 *evidence / findings*

- a _____: facts, signs or objects that make you think that something is true
- b _____: information that you discover as a result of research

3 *hypothesis / theory*

- a _____: something you think is true but has not yet been proven to be true or correct
- b _____: a scientific rule that somebody has made to explain a natural process

4 *data / sample*

- a _____: a small amount of a substance taken from a larger amount and tested to get information about this substance
- b _____: facts or information we use to find out things or to make decisions

REMEMBER!

There is a hypothesis / There are hypotheses that ... (Istnieje hipoteza / Istnieją hipotezy, że...)

This analysis indicates / These analyses indicate that ... (Ta analiza wskazuje / Te analizy wskazują, że...)

This data shows ... (Te dane pokazują, że...)

These findings suggest that ... (Te wnioski / wyniki sugerują, że... – tylko w liczbie mnogiej)

6 Complete sentences a–e with the words in the box. What is the order in which scientists do these things?

observe formulate interpret
analyse conduct

- a They _____ results.
- b They _____ a hypothesis.
- c They _____ an object or an activity.
- d They _____ experiments.
- e They _____ data and findings.

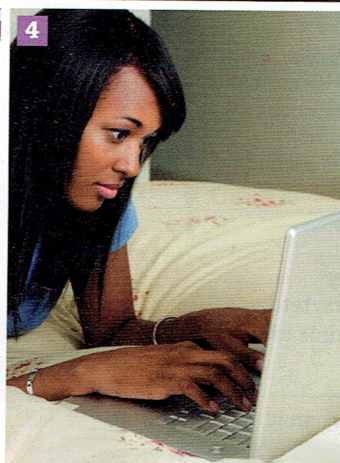
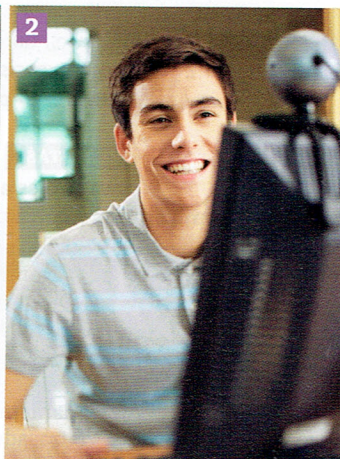
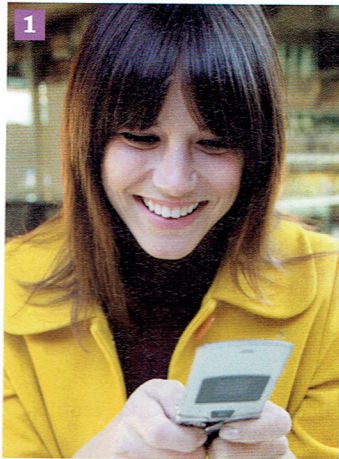
7 How good are you at science? Complete the quiz with the words in the box.

oxygen definition physics gravity
planet energy laws

Science quiz

- 1 Mars is the hottest _____ in our solar system.
- 2 Because of lower _____, a person who weighs 100 kg on Earth would only weigh 38 kg on Mars.
- 3 Around 1% of the Sun's mass is _____.
- 4 Albert Einstein developed the theory of universal gravitation as well as his famous three _____ of motion.
- 5 _____ from food is usually measured in joules or calories.
- 6 A scientist who studies _____ is known as a physician.
- 7 The _____ of absolute value says that $|x| = x$, if $x \geq 0$ or $|x| = -x$ if $x < 0$.

1 Work in pairs. Look at the photos and identify the different forms of communication. Then discuss the questions.



- 1 Which of these forms of communication do you use?
- 2 Who do you use them to communicate with?
- 3 What are the advantages and disadvantages of each?

VOCABULARY

Information and communication technology

2 Complete phrases 1–12 with words in the box.

download visit hack log (x2) use upload save make
click google search

- 1 _____ videos from your computer
- 2 _____ on
- 3 _____ on the link
- 4 _____ into someone's computer
- 5 _____ a word or phrase
- 6 _____ websites
- 7 _____ the internet
- 8 _____ a search engine
- 9 _____ information onto your computer
- 10 _____ a computer printout
- 11 _____ work onto a memory stick
- 12 _____ off

3 In pairs, discuss the questions.

- 1 Have you ever been a member of a social networking site?
- 2 Have you ever downloaded free software onto your computer?
- 3 Has your computer ever been hacked into?
- 4 What antivirus protection do you use? How effective is it?

EXAM TRAINING

Zadanie wielokrotnego wyboru

Wskazówki

- Pamiętaj, że zadanie to może zawierać pytania ogólne wymagające określenia intencji autora, rodzaju lub źródła tekstu.
- Zanim zaznaczysz jedną z odpowiedzi, zwróć więc uwagę na tytuł, nagłówek oraz styl, w jakim tekst został napisany.

4 Read the exam tip. Then read the text quickly and answer the questions.

- 1 What kind of text is this: fiction or non-fiction?
- 2 What kind of style does it use: chatty or more formal?
- 3 What does it most resemble: an article or a report?

The World Wide Web: Interesting Facts

1 When did the World Wide Web become popular?

The World Wide Web, commonly known as the Web, was launched in 1990. It was invented by English engineer and computer scientist Tim

- 5 Berners-Lee, and Belgian computer scientist Robert Cailliau. It's an interesting fact that while it took nearly four years before radio became really popular and over ten years for TV to be widely accepted, the Web took off almost immediately and its popularity is rising. The tide of the technology revolution shows no indication of turning and the internet is cheap, fast and widely accessible.

Who invented Google?

- The search engine Google was originally developed in 1997 by two computer scientists: American-born Larry Page and Russian-American Sergey Brin. Their aim was to provide a more efficient way to search for information among the increasing number of pages on the Web. Today Google is one of several search engines, but it is the most commonly used, receiving millions of questions every day. Page and Brin are billionaires thanks to Google and have earned the nickname of the Google Guys.

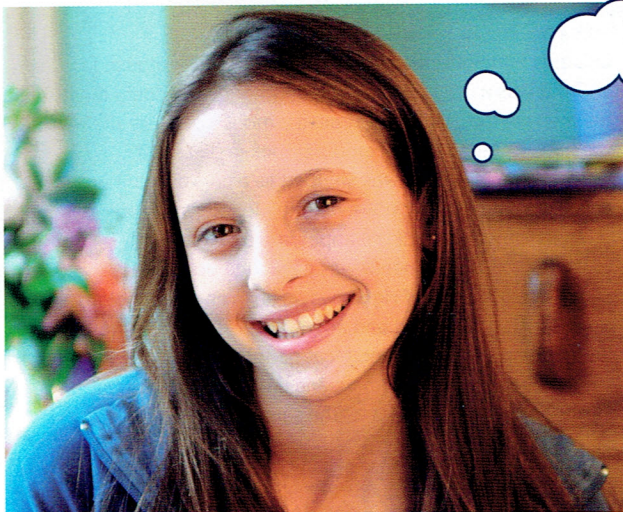
5 Read the text again and choose the correct answer A, B, C or D.

- 1 What does the writer say about the popularity of the Web?
 - A It became popular more quickly than TV and radio.
 - B It took many years before people began to use it.
 - C It's less popular than radio.
 - D More people use the internet than watch TV today.
- 2 What does the writer say about Google?
 - A It is the only search engine today.
 - B It is less efficient than it used to be.
 - C It was invented by more than one person.
 - D It is being used by fewer and fewer people.
- 3 Where do you think you are most likely to find this text?
 - A In a science fiction novel.
 - B In an encyclopaedia.
 - C In a popular science magazine.
 - D In a dictionary.

GRAMMAR

Articles *a / an, the* and zero article

1 Work in pairs. Which sentence below best captures the meaning of the photos? Give reasons.



- a I want a pink camera for my birthday.
- b I want the pink digital camera I saw in the shop window for my birthday.



2 Complete the text with *a / an* or *the*.

Last Sunday I decided to visit ¹ _____ Science Museum with my close friend Kate. We went there in ² _____ afternoon to avoid crowds. To our surprise, ³ _____ rooms were full of noisy schoolchildren. What's more, we had to hurry because ⁴ _____ museum was closing in half ⁵ _____ hour. We enjoyed ⁶ _____ exhibition ⁷ _____ lot. When we were leaving ⁸ _____ building I realized I didn't have my camera! ⁹ _____ next morning, I hung ¹⁰ _____ notice on ¹¹ _____ noticeboard outside ¹² _____ museum but I didn't have much hope. I had already begun to look for ¹³ _____ new one in ¹⁴ _____ online shop, but while I was busy browsing ¹⁵ _____ internet, ¹⁶ _____ woman called and said she had found it in the toilets. She noticed ¹⁷ _____ camera in ¹⁸ _____ cubicle next to ¹⁹ _____ washbasin and picked it up. I thanked ²⁰ _____ woman and offered her ²¹ _____ reward but she refused to accept it.

3 Find and correct one mistake in nine of the sentences. One sentence is correct.

- 1 A Moon is a planet.
- 2 The IT specialists earn good salaries.
- 3 What's a name of the inventor who visited our school last week?
- 4 My mum is a microbiologist and she works for a company which manufactures vaccines.
- 5 That's least comfortable car I have ever sat in.
- 6 This is a third time I have been to this museum.
- 7 Students who took part in the survey are all eighteen.
- 8 How big is the Saturn?
- 9 Alexander Bell invented telephone at the age of twenty-nine.
- 10 Most of today's home appliances were invented in twentieth century.

Przedimka nieokreślonego *a* lub *an* używamy:

- gdy mówimy o czymś po raz pierwszy, np.
We went to a museum last Tuesday. (jakiegoś, jednego z wielu)
- gdy mówimy, czym jest jakaś rzecz lub kim jest jakaś osoba, np.
My uncle is a scientist. (to jest jego zawód)
- w niektórych wyrażeniach związanych z szybkością, częstotliwością itp., np.
The new prototype can reach up to 250 km an hour and save as much as five litres of petrol a day.

Przedimka określonego *the* używamy:

- gdy mówimy o czymś ponownie, np.
We went to a museum on Friday. The museum was very crowded.
- kiedy rzecz, o której mówimy, jest nam znana, np.
The scientist who lives in my street was on TV last night. (ten, o którym ci mówiłam)
- gdy mówimy o rzeczach lub osobach jedynych w swoim rodzaju, np.
the Moon, the Sun, the Earth
- przed liczebnikami porządkowymi i w stopniu najwyższym przymiotnika, np.
the first female inventor, the most modern device
- w wyrażeniach określających stulecia, np.
the nineteenth century
- przed nazwami wynalazków, np.
The radio was invented by Marconi.

Przedimków nie używamy:

- przed rzeczownikami w liczbie mnogiej, użytymi w znaczeniu ogólnym, np.
Scientists have never been rich.
- przed rzeczownikami niepoliczalnymi i abstrakcyjnymi o charakterze stwierdzeń ogólnych, np.
Money makes the world go round.
Patience is the key to success in science.

- 14 Complete the newspaper stories. Use the verbs in brackets in the correct form of the active, or passive.

According to the British government more and more students ¹_____ (pass) their A levels with high grades and hoping to go to university. However, universities are getting full, and over the last couple of years, many students ²_____ (not give) places. It ³_____ (believe) that the rise in grades is due to easier exams. However, schools say that the quality of education ⁴_____ (improve) all the time and this is why the students ⁵_____ (do) even better than usual this year.

Jewellery worth £10,000 and many other items ⁶_____ (steal) last night from The Gold House in Central London. Thieves ⁷_____ (break in) to the well-known department store at around midnight last night. Two men ⁸_____ (see) leaving the building by a security guard. It ⁹_____ (think) that the guard was asleep when the crime took place. He ¹⁰_____ (give) a statement this afternoon. The men ¹¹_____ (not catch) yet, but police ¹²_____ (make) enquiries and hope to make an arrest soon.

NOUNS, PRONOUNS, DETERMINERS

Articles *a / an, the* and zero article

Prison, school, hospital, etc.

When we talk generally about institutions, e.g. hospitals, schools, prisons etc., we leave out the article unless we are talking about a specific place.

My uncle is in hospital. (He is a patient)

Are you going to the hospital to visit him?

Does your little sister go to school yet? (Is she a school student?)

My brother goes to the school down the road.

- 1 Tick ✓ the sentences that are correct. Rewrite the incorrect sentences.

- 1 My neighbour's in the prison for burglary.
- 2 We've got a new English teacher.
- 3 I saw the interesting documentary last night.
- 4 The man that reads the news looks like my dad.
- 5 My friend goes to the church on the Oxford Road.
- 6 I saw a man and a woman in the park. A man was wearing a red hat.
- 7 We went to an interesting art gallery at the weekend.
- 8 Mark is a most intelligent person I know.

- 2 Find and correct six mistakes in the email.

Hi Ela

I haven't spoken to you for ages! How's life? Are you enjoying the school? Have you done anything interesting recently? Things are pretty much the same here. I'm working hard because I've got the important exam next month. I don't have much free time, but I went out with some friends last weekend. We did some shopping in Covent Garden. I bought the new bag and a T-shirt. A T-shirt is a bit boring, but it was all I could find. Later we went to the cinema and after that for the pizza. It was a best day I'd had for ages, but now I have to study again.

Write soon and tell me your news!

Love
Jenny

Place names and *the*

- 3 Complete the quiz questions with *the* or nothing (-).

- 1 Where is _____ Table Mountain?
- 2 In which American city is _____ Harvard University?
- 3 Is _____ Amazon the longest river in the world?
- 4 Is _____ Oxford Street in Oxford?
- 5 Where are _____ Fiji Islands?
- 6 Where is _____ Grand Canal and the Rialto Bridge.
- 7 Are _____ Rocky Mountains in _____ Australasia?
- 8 Does _____ President of the United States live in _____ Downing Street?

- 4 Now complete the quiz answers with *the* or nothing (-) and match them with the quiz questions.

- a No, it isn't. It's in _____ London.
- b It's in _____ Cambridge, Massachusetts.
- c It's in _____ South Africa
- d They're in _____ South Pacific Ocean.
- e They're in _____ Venice.
- f No, he lives in _____ White House which is in _____ Washington.
- g No, it isn't. It's _____ River Nile.
- h No, they aren't. They're in _____ North America.

wheelchair fencing szermierka na wózkach
(dyscyplina uprawiana przez osoby niepełnosprawne)
windsurfing windsurfing
wrestling zapasy

11.2 Extreme sports

BASE jumping skoki z dużej wysokości
bungee jumping skoki na linie z dużej wysokości
cave diving nurkowanie jaskiniowe
extreme skiing narciarstwo ekstremalne
free climbing wspinaczka góraska bez zabezpieczenia
hang-gliding paralotniarstwo
skateboarding jazda na deskorolce
sky surfing surfowanie w przestrzeni
street luge szybka jazda po ulicy na specjalnych sankach
white water rafting spływ górski

11.3 People

archer łucznik
athlete sportowiec, lekkoatleta
boxer bokser
champion mistrz
coach trener
diver nurek
fencer szermierz
football player piłkarz
goalkeeper bramkarz
golfer gracz w golfa
gymnast gimnastyk
hurdler biegacz przez płotki
instructor instruktor
marathon runner maratończyk
pole-vaulter skoczek o tyczce
professional zawodowiec
referee sędzia sportowy
runner biegacz
runner-up zdobywca drugiego miejsca
skier narciarz
ski-jumper skoczek
spectator widz
sportsman, sportswoman sportowiec
sprinter sprinter
supporter, fan kibic
swimmer pływak
tenis player tenisista
umpire sędzia (w tenisie, krykiecie)
weightlifter ciężarowiec
windsurfer windsurfer

11.4 Places to do sports

(boxing) ring ring (bokserski)
course tor wyścigów konnych, pole golfowe
court kort (tenisowy, do squasha, badmintonowy)
bowling alley kręgielnia
field boisko, plac
gym, gymnasium sala gimnastyczna, siłownia
ice rink, skating rink lodowisko
pitch boisko (do piłki nożnej, rugby, hokeja)
ski slope stok narciarski
sports facilities urządzenia, obiekty sportowe
(swimming) pool basen
stadium stadion
track bieżnia, tor

11.5 Sports equipment

bat rakieta (do tenisa stołowego), kij (baseballowy)
bindings wiązania
(cycling) helmet kask (rowerowy)
dumbbell hantle
headband opaska na głowę
ice skates łyżwy
net siatka
(pilates / yoga) mat mata (do pilates / do jogi)
rollerblades łyżworolki
skateboard deskorolka
(skiing) goggles gogle (narciarskie)
(skiing) poles kijki (narciarskie)
snowboard deska snowboardowa
stepper stepper
stick kij (hokejowy)
(swimming) cap czepok
(swimming) costume kostium (kąpielowy)
(swimming) trunks kąpielówki

tennis racket rakieta do tenisa
tracksuit dres

11.6 Competitive sports

achieve one's dreams zrealizować marzenia
agility gibkość, giętkość
amateur sportsman / sportswoman amator, amatorka
be held, take place odbywać się
be under pressure być pod presją
beat pokonać
~ (a team) **four nil** (jakąś drużynę) cztery do zera
~ **one's oponent** przeciwnika
compete with sb współzawodniczyć z kimś
competition konkurencja, zawody
competitive sports sporty oparte na współzawodnictwie
competitor zawodnik
confidence pewność siebie
courage odwaga
defeat pokonywać
determination determinacja
doping doping
draw remis
draw with sb zremisować z kimś
drug tests testy antydopingowe
give an extraordinary performance bardzo dobrze się spisać
go on a special diet być na specjalnej diecie
good-humour dobry nastrój
lose przegrać
match at home mecz na własnym boisku
medal medal
gold ~ złoty
silver ~ srebrny
bronze ~ brązowy
obtain good results osiągać dobre wyniki
play a game of (tennis) zagrać partię (w tenisa)
psychological approach podejście psychologiczne
race wyścig, bieg
record rekord
break a ~ pobić
set a ~ ustanowić
qualify for sth zakwalifikować się do czegoś
score wynik
score zdobyć
~ a goal bramkę
~ a point punkt
self-discipline samodyscyplina
strength siła
succeed in sth odnieść w czymś sukces
take part in sth brać w czymś udział
tournament turniej
train trenować
turn professional przejść na zawodowość
venue miejsce (np. zawodów)
victory zwycięstwo
win wygrać
~ by three goals to one trzy do jednego
~ a game grę
~ a match mecz

11.7 Sporting events

championships mistrzostwa
Grand Slam Wielki Szlem (w tenisie)
Paralympic Games Paraolimpiada
Ryder Cup Tournament turniej golfowy
sporting event wydarzenie sportowe
Summer Olympics letnie igrzyska olimpijskie
Super Bowl mecz o mistrzostwo w futbolu amerykańskim
Winter Olympics zimowe igrzyska olimpijskie
World Championship mistrzostwa świata
World Cup Puchar Świata
World Series mistrzostwa baseballowe

12 NAUKA I TECHNIKA

12.1 Science

analysis, pl. analyses analiza, analizy
analyse results analizować wyniki
area of research dziedzina badawcza

(chemical / mathematical) formula wzór (chemiczny / matematyczny)
conduct / carry out experiments przeprowadzać eksperymenty
definition definicja
develop a theory rozwinąć teorię
do research into sth przeprowadzić badania dotyczące czegoś
element pierwiastek
energy energia
evidence dowód
find out about sth dowiadywać się o czymś
findings wnioski, wyniki
formulate sformułować
gravity przyciąganie ziemskie
hypothesis, pl. hypotheses hipoteza, hipotezy
indicate wskazywać
investigate badać
interpret data interpretować dane
laws of motion zasady dynamiki
observe (an object / an activity) obserwować (przedmiot / działanie)
oxygen tlen
prove sth by experiments dowieść czegoś drogą eksperymentalną
(research) laboratory / institute laboratorium (badawcze) / instytut (badawczy)
researcher badacz, naukowiec
results wyniki
sample próbka, przykład
(scientific) theory teoria (naukowa)
show wykazywać
study of sth, survey of sth badanie czegoś
study the universe badać wszechświat
suggest sugerować
test tube probówka

12.2 Areas of science and scientists

anthropology, anthropologist antropologia, antropolog
archaeology, archaeologist archeologia, archeolog
astrology, astrologist astrologia, astrolog
astrophysics, astrophysicist astrofizyka, astrofizyk
biology, biologist biologia, biolog
biotechnology, biotechnologist biotechnologia, biotechnolog
chemistry, chemist chemia, chemik
computer science informatyka
economics, economist ekonomia, ekonomista
engineering, engineer inżynieria, inżynier
genetics, geneticist genetyka, genetyk
geology, geologist geologia, geolog
information processing przetwarzanie informacji
linguistics, linguist lingwistyka, lingwista
mathematics, maths, mathematician matematyka, matematyk
physics, physicist fizyka, fizyk
political science politologia
psychology, psychologist psychologia, psycholog
robotics, roboticist robotyka, robotyk

12.3 Information and

communication technology
anti-virus protection zabezpieczenie antywirusowe
be offline być odłączonym od sieci
be online być podłączonym do sieci
broadband stałe łącze
bug wirus, błąd
click on the link kliknąć link
(computer) programme (US program) program (komputerowy)
cursor kursor
database baza danych
download (information / a file) onto your computer ściągać (informacje / plik) na swój komputer
(free) software (darmowe) oprogramowanie
google (a word / a phrase) wyszukać w przeglądarce (słowo / wyrażenie)
hack into sb's computer włamywać się do czyjegoś komputera
hard disk twardy dysk
insert a CD-ROM włożyć płytę CD-ROM
keyboard klawiatura
log off wylogować się
log on zalogować się