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MODERN ENGLISH

for University Students

Extensive Reading

Students' Book

Grade 2 B

G.R. Evans and D. Watson



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庆大学韩其顺，北京外国语学院周献桃和高等教育
出版社曹根望。

现代英语

泛读 2B

第2级

G. R. 埃文斯 D. 沃森

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中国高等教育出版社 出版
英国麦克米伦出版公司

新华书店北京发行所发行

外文印刷厂印装

*

开本787×1092 1/16 印张3.75 字数96,000

1986年11月第1版 1986年11月第1次印刷

印数 000,001-130,300

书号 9010·0294 定价 0.82元

ACKNOWLEDGEMENTS

The author and publishers wish to thank the following who have kindly given permission for the use of copyright material:

Jonathan Cape Ltd for extracts from *The Biocrats* by Gerald Leach and *Manwatching* by Desmond Morris

David Higham Associates Limited for extracts from *Imperial Earth* and *The Fountains of Paradise* by Arthur C Clarke published by Victor Collanz

Century Hutchinson Limited for an extract from *2001-A Space Odyssey* by Arthur C Clarke

New Scientist for extracts from the article *Acupuncture Revisited* by Professor Par Wall from New Scientist, 3 October 1974

Pan Books for extracts from *The Gaia Atlas of Planet Management* by Norman Myers

Penguin Books Ltd for extracts from *How the Other Half Dies: The Real Reasons for World Hunger* by Susan George (Pelican Books, 1976, reprinted with revisions 1977), copyright © Susan George, 1976, 1977

Rainbird Publishing Group Ltd for extracts from *The Making of Mankind* by Richard E Leakey

Thames & Hudson Ltd for extracts from *The Biological Timebomb* by Gordon Rattray Taylor

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UNIT 7

BEFORE READING

- 1 (a) Look up the following words in your dictionary and make a note of their meanings.
genes nucleus donor breed reproduce
- (b) What subject do you think might be under consideration if the writer uses all of these words?
- (c) Now read the first text. Were you right about the subject?
Read the text quickly, paying special attention to important facts such as dates, places and names.

READING TEXT ONE

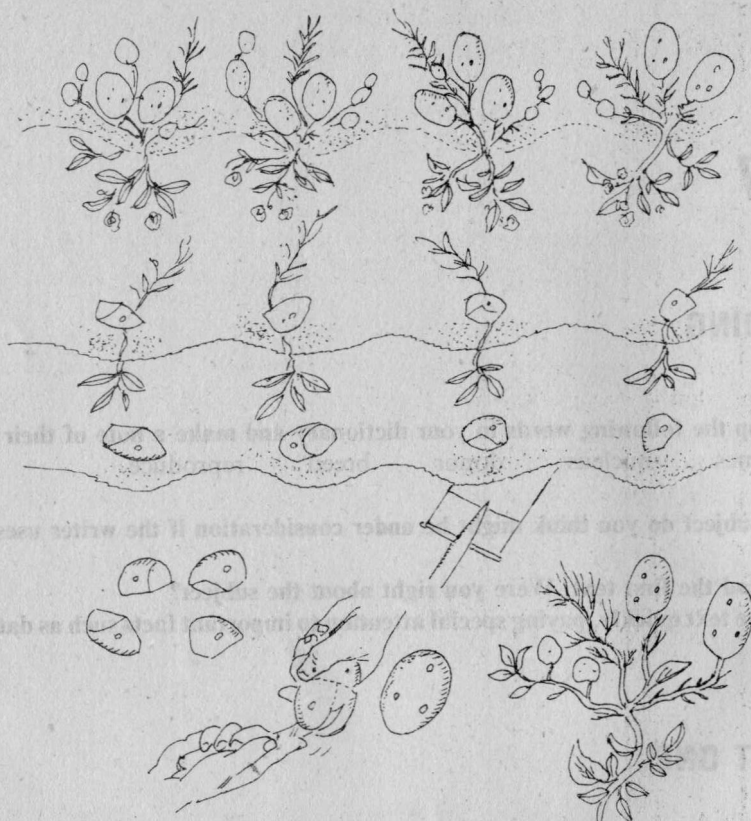
CLONES—As Many Twins As You Like

- When a gardener wants to grow a new plant, he can often take a cutting from a single parent plant. From one stem or leaf he can grow an entire plant. In the animal kingdom, of course, we need two parents for the production of a new organism: we cannot cut off a toe and grow a baby from it. But in June 1966 a team of Oxford biologists announced in the magazine *Nature* that
- 5 they had grown seven frogs from the intestinal cells of other frogs. In other words, they had managed to use the gardener's technique with an animal.

- Basically, what they did was to exchange the genes in the frog's cells. They started off with a frog's egg. They removed the nucleus, which contains all the genes, and replaced it with the nucleus from a body cell of another frog. They then implanted the egg with its new nucleus in a
- 10 female frog and caused it to start developing. The eventual result was a normal frog. But because the new egg nucleus came from another frog's body cell, which contains the complete double set of genetic instructions of its owner, the new frog was genetically identical to that original frog. It contained none of its 'mother's' genes at all, and none of the genes from the original egg. If one does this several times using the same donor, taking the nucleus from the
- 15 same 'parent', the result is a whole set or 'clone' of identical twins. They are not only identical to each other, they are also identical to their parent.

- The next step was to clone land animals such as sheep and cows. The surgery involved was more delicate, for these animals have smaller eggs with tougher outer skins, but the technique is technically feasible in humans. So in theory, it is possible for us to reproduce exact copies of
- 20 ourselves. Possible, perhaps. But is it likely?

A great deal of nonsense has been written about the dangers of cloning. Wicked rulers could turn out unlimited numbers of identical people and create armies of soldiers or slaves. But for



The process of cloning in the potato

five thousand years it has been perfectly possible for power-mad rulers to pick out certain human beings and breed them selectively, creating specialised types, just as humans have bred cows and dogs. No ruler has ever succeeded in doing so, 'because none of their subjects would stand for it. Besides, if one wants a specialised army of men, it is far easier and quicker to train them. What ruler, however mad, would be willing to wait twenty years for his army to grow up?

COMPREHENSION

2 (a) Answer these questions quickly, without reading the whole text again.

- 1 Where did the biologists do their research?
- 2 When did they make their announcement?
- 3 What was the name of the magazine in which they published their research?
- 4 What animals had they been experimenting on?

(b) Choose the most appropriate heading for each of the four paragraphs of the text from the list below. Put the headings in the right order.

- A The process of cloning
- B The possible dangers of cloning
- C The possible advantages of cloning
- D The possibility of cloning humans

- E The usefulness of cloning in farming
- F News of the first successful cloning of an animal

(c) Now read the second paragraph more carefully. Rearrange the six sentences below in the correct order to describe the process of cloning a frog:

- A A frog's egg is removed.
- B The egg is made to start growing.
- C The egg is put into a female frog.
- D The nucleus is removed from the egg.
- E The nucleus from another cell is put in place of the egg nucleus.

(d) Are the following sentences in agreement with the information and views expressed in the text? Point out what is wrong with those that do not agree with the text.

- 1 You can use three different frogs in the cloning process to produce one frog.
- 2 You can grow as many clones as you like from one cell.
- 3 Clones are identical to their parent because they all come from the same egg.
- 4 Frogs are easier to clone than land animals.
- 5 Most biologists do not expect cloning to be possible in humans.
- 6 Cloning is a faster way to produce new organisms than natural reproduction.

VOCABULARY PRACTICE

3 (a) Find single words in the text which have the same meaning as the following words or phrases. Give line references to support your answers.

- 1 make public knowledge
- 2 not male
- 3 first
- 4 needing very careful handling
- 5 possible
- 6 bad, with bad intentions
- 7 by making careful choices
- 8 it doesn't matter how much

(b) Find in the text and write down the adverbs which come from the following nouns. See how they are used. Then use them to complete the sentences that follow.

base gene technique

- 1 A cloned animal need not be _____ related to its mother.
- 2 _____ I don't like the idea of cloning humans.
- 3 _____ there is no reason why biologists should not try to clone humans.

(c) Some verbs, like *start off* (meaning *begin*), consist of two words. The second word sometimes changes the meaning of the whole verb considerably. Read paragraph 4 of the text and find four of these phrasal verbs which have the same meanings as the verbs below. Then use them to complete the sentences, making sure that you put them in the correct form.

tolerate become adult choose produce, manufacture

- 1 The factory _____ fifty cars a day.
- 2 He's a very strict boss: he won't _____ lateness.

- 3 My son says he wants to become a doctor when he _____.
 4 The police showed the witness a lot of photographs and asked him to _____ the man he had seen.

BEFORE READING

- 4 (a) Look up the following words in your dictionary and make a note of their meanings.
 ridiculous imagine foresee predict genius literally
- (b) Try to answer the following questions.
 1 Can you give an example of a genius?
 2 Who was Isaac Newton?
 3 Who was Albert Einstein?
 4 Do you think a mother would like to have a cloned child?
 5 Do you think it would make any difference to a child if it were cloned?
- (c) Now read the second reading text. It is a continuation of the first passage. Read the last part of the first text again, and make sure you understand why the writer begins with the words 'Equally ridiculous...'

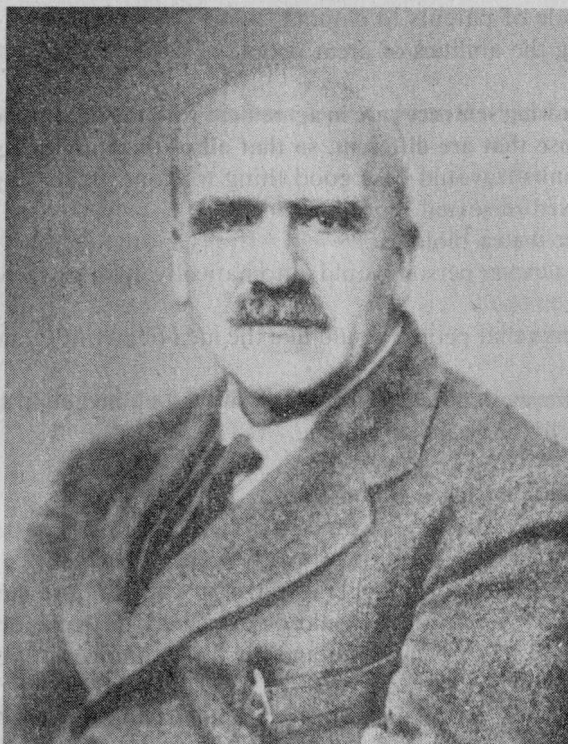
READING TEXT TWO

Equally ridiculous are some of the hopes voiced by certain biologists with wild imaginations. They have foreseen a more positive use of cloning—to improve the human genetic stock. The technique could be used to 'fix' good characters. This, after all, is why plant breeders take cuttings: they use sexual reproduction for genetic experiments, to mix genes and produce favourable recombinations by chance; then, when a good variety appears, they fix it by taking cuttings and making copies. So why not do the same with humans? Couldn't superior individuals be bred or rather copied in this way?

- In other words, when a Newton or an Einstein appears, why not ensure more Newtons and Einsteins? One needs only a few cells—from inside the mouth say—to get hold of their 'superior' genes, and with freezing they could be used indefinitely, long after their original owner's death. Of course, a Newton or an Einstein is not entirely the product of his genes: environment and education also have to be taken into consideration. So several biologists take the idea further. J.B.S. Haldane, for example, predicted that 'superior individuals' will spend their later years educating their own clones. Just imagine a school where every class is full of identical twins. And, in their teacher, they would see not only their parent but also themselves in thirty or forty years' time. Being genetically identical, teacher and pupils would understand each other with great ease and progress would be very fast. Or so the imaginative biologists would like us to believe.

- Another idea is that clone-pairs might be able to work extremely well together in difficult, stressful jobs—as a pair of astronauts, for example, or deep-sea divers, or surgeons. Taking this idea further, some biologists have even wondered about breeding a clone football team!

But can you imagine anyone ever wanting to have a child in this extraordinary way? Can you



Professor J.B.S. Haldane

imagine a group of parents agreeing to clone from one famous sportsman and have their identical children brought up together, so that they could make a good football team in twenty-five years' time? Surely people want to have their own unique and unpredictable children, not copies of someone else, and not specialised tools.

And what about the clone child itself? Would it regret its loss of uniqueness and individuality? Clonal reproduction introduces something totally new into the world: the child would know that it is a biological copy of its parent; it would know that other people could predict its character and abilities; it would be able to see its own biological future reflected in the identical parent. Would this be right? Would it be fair to bring up a child in this way? If the genetic parent was famous, the psychological effect on the child could be disastrous. To aim for genius is fine, to be the child of a genius can be terribly difficult, but to be expected to develop into a genius because you are a genetically identical twin could be crushing. Some fathers already regard their children as 'chips off the old block' and bring them up to fulfil these expectations. Such children usually have extreme difficulty in escaping from their fathers for long enough to find out who they really are. A clone would be literally a chip off the old block and the burden of expectations would be overwhelming.

COMPREHENSION

5 (a) Put the following paragraph headings in the right order. One of these headings covers two of the five paragraphs.

- A The working advantages of clones
- B The attitude of children as clones

- C The attitude of parents to cloning
- D Preserving the abilities of great people

(b) Which of the following sentences are in agreement with the information and views expressed in the text? Change those that are different, so that all of them are in agreement with the text.

- 1 The writer thinks it would be a good thing to clone great people.
- 2 Genes are mixed in sexual reproduction.
- 3 J.B.S. Haldane was a biologist.
- 4 The clones of a clever person would automatically grow up to become just as clever as their parent.
- 5 The writer thinks that people would like the idea of having clones of famous people as their children.
- 6 The writer believes it would be wrong to show a cloned child the sort of person he or she would eventually grow up to become.

(c) Try to answer the following questions.

- 1 Why is it thought that clones would work well together?
- 2 Do you think a clone football team really would play well?
- 3 Why does the writer think parents would not want to have cloned children?
- 4 What does the writer consider would be extremely difficult for the cloned child?
- 5 Can you think of any other advantages or disadvantages of being a clone?

(d) 'A chip off the old block' is a metaphorical expression. (Look up the word *metaphorical* if you have forgotten it.) What does this expression describe? Choose the best answer.

- 1 A father who wants his children to be just like him.
- 2 A child who doesn't like being just like its father.
- 3 A child who is exactly like one of its parents, particularly in character.
- 4 A child who looks like one of its parents but is different in character.

If this is a *metaphorical* expression, can you explain why the writer can use the word *literally* with it near the end of the passage?

VOCABULARY PRACTICE

6 (a) What do you think are the meanings of the prefixes in the following words?

- 1 *foresee*
- 2 *reproduction*
- 3 *recombination*
- 4 *ensure*
- 5 *implant*

(b) Find single words in the text which have the same meaning as the following words or phrases. Give line references to support your answers

- 1 accident
- 2 better or higher in some way
- 3 people
- 4 with no time limit
- 5 result
- 6 very unusual
- 7 terrible, with terrible consequences

- 8 consider
9 something that is difficult to bear

(c) Match words from Column A with those from Column B which have the same or similar meanings.

A	B
totally	grow
educate	great
extreme	positive
predict	entirely
favourable	foresee
breed	bring up

(d) The following words have all been used in the text. What prepositions do you expect to see after them?

1 manage	6 able
2 identical	7 wonder
3 succeed	8 the effect
4 get hold	9 develop
5 full	10 escape

(e) Now choose the correct preposition to complete each of the phrases below.

- grow a plant a cutting
- replace the nucleus one from another cell
- implant the egg a female
- regard their children chips off the old block

BEFORE READING

- 7 The last reading text is taken from a science fiction novel. A character in the story has decided, after a great deal of thought, to have a cloned child of himself. There are no language exercises on this text, but there are some comprehension questions for you to think about.

READING TEXT THREE

"I'm glad," said Dr Yehudi, "that you've finally made up your mind. The delay has caused certain problems, but we've overcome them. We now have four perfect embryos¹, and the first will be transplanted in a week. The others will be kept as back-ups, to replace the first in the event of a rejection—though that is now very rare."

- 5 And what will happen to the unwanted three? Duncan asked himself. But he didn't think too long about the probable answer. One human being had been created, who would never otherwise have existed. That was the positive side; better to forget the three ghosts² who for a short time had hovered³ on the borders of reality. Yet it was hard to be coldly logical⁴ in matters like this.

- 10 But consider the cold mathematics of reproduction. Old Mother Nature had not the least

regard for human feelings. In the course of a lifetime, every man generated enough spermatazoa⁵ to populate the entire solar system many times over — and all but two or three of that potential multitude⁶ were doomed.

- 15 There were obligations and uncertainties behind every act; in the long run, a man could only obey his conscience and hope that the outcome would not be too disastrous. And of course one could never know the *final* results of any actions. Strange. Duncan had had great doubts at first. Now he had learned to take the broader view and place his hopes in a wider context.

- 20 He suddenly realised that while he had been thinking he had already signed the legal documents and he was now returning them to Dr Yehudi. But he had read them fully earlier and knew his responsibilities. "I, Duncan Mackenzie, resident of the satellite Titan, presently in orbit round the planet Saturn — (when did the lawyers think it was going to run away?) — do hereby accept guardianship⁷ of one cloned male child, identified by the chromosome⁸ chart attached, and will to the best of my ability ... etc. etc." Perhaps the world would have been a better place if the parents of normally conceived children had been forced to sign such a
25 contract; this thought, however, was some hundred billion births too late.

1 *embryo* an organism in the early stages of development before birth

2 *ghost* a spirit which does not really exist

3 *hover* wait in the air

4 *logical* rational, using the power of the mind and not the emotions

- 30 5 *spermatazoa* male reproductive cell

6 *multitude* a great number of people

7 *guardianship* responsibility to care for a child

8 *chromosomes* structures in a living cell consisting of genes

COMPREHENSION & FURTHER PRACTICE

8 Try to answer the following questions. Support your answers with line references.

- 1 At which points in this text is it clear that the story is set in the future?
- 2 Do you think cloning might be done in this way one day?
- 3 Which parts of the text show that Duncan Mackenzie was perhaps doubtful at first and took a long time to decide to have a child cloned?
- 4 What does Duncan Mackenzie think is 'too late' at the end of the text? Do you think this is a possible advantage of cloning?
- 5 Have you read any other stories where cloning is practised?

UNIT 8

BEFORE READING

- 1 (a) Look up the following words in your dictionary. Can you guess what subject might be under consideration if all these words are used?
phonetics analyse electronically graph
- (b) Now read the first paragraph of the text and answer the questions below.
- 1 How can we avoid leaving finger-prints?
 - 2 What is measured to produce a voice-print?
 - 3 Are voice-prints recorded on tape or printed on paper?
- (c) Think about the following questions before you read any more of the text.
- 1 Can computers understand speech?
 - 2 What would a speech-recognising computer be used for?
 - 3 Do you think it would be easy to fool a computer — to make it think you were someone else?
 - 4 How would you do it?
- (d) Now read the whole of the first text. Do your answers to the previous question agree with what is written here?

READING TEXT ONE

SPEECH RECOGNITION BY COMPUTER

Some phonetics experts claim that they can recognise people by their voice-prints, just as the police use finger-prints to identify criminals. We can't, unless we wear gloves, help leaving finger-prints on everything we touch, but voice-prints are produced electronically: a machine analyses the frequencies used by a particular voice and draws a graph of them, so sound is converted electronically into a pattern of lines.

Computers, however, are still not as clever as phonetics experts. Technicians have for a long time been trying to build computers that will recognise not only speech but also speakers. Their success has been variable.

But why should anyone want to build a computer that can recognise a person by his voice?

- 10 One obvious use of such a device would be in security systems, where the computer can verify that a person really is who he claims to be. For this task the computer would not need to be very large, since it would only have to deal with a limited number of people, using perhaps one

particular phrase. Anyone wanting to gain admission must say the 'password' into the computer's microphone and if his voice is recognised he is admitted.

- 15 The computer which 'listens' to a voice measures two variables: intensity — how loud or soft the voice is, and pitch — how high or low the frequencies are. But these systems have not yet been perfected and are far from foolproof. One being developed at the Bell Laboratories in America has a typical failure rate: it rejected people incorrectly 9 per cent of the time, whilst mistakenly accepting 10 per cent of those who should have been rejected. This was in spite of the
20 fact that the speakers were expected to be co-operative and not to distort their voices. Even so, certain individuals were rejected 45 per cent of the time, suggesting that the pitch and intensity of their voices varied from one occasion to another more than other people's. If the speakers had been allowed to disguise their voices, the results would have been even worse.

- A much more difficult task for a computer is to establish that two separate and completely
25 different samples of speech (with no 'password') are spoken by the same voice. Completely different voice-prints have to be compared to find common characteristics. But despite the opinions of experts, voice-prints are still not allowed as evidence in courts of law.

- Other researchers at the University of Florida used a slightly different technique: they measured the sound pressure in decibels in particular frequency bands. They took three half-
30 minute samples of speech from each of 25 subjects and then tried to identify the speakers in a fourth sample. Their accuracy was over 90 per cent. But this success rate fell when larger numbers of people were used, indicating that more variables should be studied. If perfected, this system might be useful in identifying people who refuse to reveal their identity when making telephone calls. However, as yet the technique has proved incapable of recognizing anyone who
35 deliberately disguises his voice. It's still easy to fool the listening computers.

COMPREHENSION

- 2 (a) Choose the most appropriate heading for each of the six paragraphs of the text from the list below. Put the headings in the right order.

- A Computers
- B The method in which speakers can use different phrases
- C The method in which speakers use set phrases, and its results
- D The use of a computer that can recognise a person's voice
- E The results of the method using different phrases
- F Voice-prints

- (b) Are the following sentences true or false? Find the sentences in the text which provide the necessary information.

- 1 It's easier to make a computer that can recognise the speaker of a password than to make one that can recognise the speaker of different phrases.
- 2 Some people say they can compare voice-prints better than computers can.
- 3 Some computers can recognise speech much better than the one at Bell Laboratories.
- 4 The experiments in Florida were more successful when they studied the speech of more people.

- (c) Answer the following questions about specialist terms used in this text. Do not use a dictionary. You can work out all the answers from the text alone.

- 1 What name is given to an instrument that is sensitive to sound, an instrument which picks up sound?

- 2 What noun is used to refer to whether sounds are high or low?
- 3 What noun is used to refer to whether sounds are loud or soft?
- 4 How can pitch be expressed?
- 5 How can loudness be expressed?

(d) **Choose the best ending for each of the following sentences.**

- 1 In the experiments at Bell Laboratories, ten per cent of the people
 - (i) who were accepted by the computer should have been rejected.
 - (ii) whose voices had not been introduced to the computer were accepted by it.
 - (iii) whose voices were used were wrongly identified by the computer.
 - (iv) whose voice patterns were in the computer were accepted.
- 2 The computer will admit people
 - (i) who say the password correctly.
 - (ii) whose name it recognises.
 - (iii) whose voices vary in pitch and intensity.
 - (iv) whose voice patterns of intensity and pitch it recognises.
- 3 Some people were found
 - (i) to speak less consistently than others.
 - (ii) to be unrecognisable most of the time.
 - (iii) to be unco-operative in the tests.
 - (iv) to be rejected too often because they did not have good microphone voices.
- 4 In the University of Florida test, each subject was recorded
 - (i) for a total of about two minutes.
 - (ii) four times.
 - (iii) twice.
 - (iv) for about one-and-a-half minutes.

VOCABULARY PRACTICE

3 (a) Find words or phrases in the text which have the same meanings as the following words or phrases. Give line references to support your answers.

- 1 people who break the law
- 2 changed
- 3 changeable; sometimes good, sometimes bad
- 4 check that something is true
- 5 say that something is true
- 6 allowed to enter
- 7 finished and made well
- 8 common; the same as many others
- 9 something that helps to show what is true

(b) **In paragraph 4, find two words meaning 'change'. What prefix do they have in common?**

(c) **In addition to the words in the previous question, you have learnt others with the general meaning of 'change' i.e. 'convert', 'vary', 'transfer' and 'translate' Use all of these words to complete the sentences below in the best way.**

- 1 The temperature can _____ a great deal in spring.
- 2 Can you _____ 136 miles into kilometres?
- 3 This description is too technical. Can you _____ it into everyday language?

- 4 He tried to ____ his appearance to avoid being recognised.
- 5 Mr Davies doesn't work in this office any more. He's been ____ ed to another department.
- 6 Radio reception wasn't very good because of a disturbance in the atmosphere: the announcer's voice sounded very ____ ed.

(d) Find in the text and write down the nouns which come from the following verbs. See how they are used.

recognise admit intense secure accurate

(e) Match words from Column A with those from Column B which have similar meanings as they are used in the passage.

A
identify
incorrect
establish
loudness
distort
analyse

B
disguise
intensity
recognise
mistaken
measure
verify

QUICK READING

- 4 (a) In the rest of the reading material in this unit you will consider another use of electronics and computers. Read the newspaper cuttings on the next page. First read *all* the headlines, and then read the first few lines of each report. The reports are not complete. Do *not* try to understand everything in detail; just find out what the subject of these reports is and a few basic facts about it.
- (b) Choose the best answer for each of the following questions. Refer to the reports if you need to.
 - 1 What is the most important thing about this new development?
 - (i) You can buy from 3,500 supermarkets.
 - (ii) You can do your shopping at home.
 - (iii) The groceries are delivered by van, not by bicycle.
 - (iv) Shopping is delivered immediately.
 - 2 What is Prestel?
 - (i) A network of supermarkets.
 - (ii) A network which connects computers by telephone.
 - (iii) A network which connects televisions to central computers.
 - (iv) A network of telephones and televisions.
 - 3 Which of the following sentences are true?
 - (i) The network uses 3,500 supermarkets.
 - (ii) Customers make their orders with a television and a keyboard.
 - (iii) Customers can buy from a range of 3,500 different items.
 - (iv) Customers must have a telecard to use the system.
 - (v) The system was used experimentally in London.

5

Now read the second reading text and find out more about this new way of shopping. This is some of the publicity material which TELECARD SUPERSHOP put out to attract customers.

TELECARD Supershop IN THE NEWS

THE GROCER

Armchair shopping for groceries goes public...

ARMCHAIR shopping for groceries has arrived and technology has brought back deliveries once thought to be too expensive and out-moded. Customers will simply press buttons while looking at a television screen, and the goods will arrive, neatly boxed the same day.

The development comes from Telecard Holdings which has introduced its Supershop system as announced

Prestel brings back the grocer's 'boy'

THOSE OLD enough will remember the pre-war "grocer's boy" who would deliver your weekly groceries in a wicker basket from the front of a heavy-weight bicycle.

Those days are coming back, with the difference that the cycle becomes a delivery van and the housewife goes nowhere near the shop, using instead a keyboard and television set to order from an "electronic supermarket."

Telecard Holdings, which raised £600,000 in a recent over-the-counter flotation, is joining Lalani Foods, the supermarket chain, to bring a Prestel-based supermarket "tele-shopping" service, complete with same-day delivery, to five London boroughs. More than 100 items will be on offer.

The service will be on offer in the shop.

FINANCIAL TIMES

In addition, Littlewoods, the Nottingham Building Society, Great Universal Stores and others have teleshopping and mail order services.

The Telecard move could be a turning point for Prestel, which until now has mainly carried services that appeal to segments of the population like software buffs or investors.

Shopping by TV

AN "electronic supermarket," offering home delivery of 3,500 supermarket lines ordered from the home TV screen, opens in London today. The service is run by Telecard Holdings, using British Telecom's Prestel network, which links adapted TV sets to central computers via the phone line.

There will be 24-hour, six-day access, initially in five inner London Boroughs. The service is currently available to existing Prestel subscribers, but will be broadened

A key to the instant grocer

SHOPPING from the home TV screen may at last be outgrowing the gimmick stage.

The tentative evidence comes from the first two weeks' operation of a new London company, Telecard, which claims to run the world's first commercial electronic shopping service and from the three-year subsidised experiment in the Midlands.

Both are aimed at the professional middle-class, both are winning particularly in families where both parents work and want to avoid the weekly hic-bang assault on the supermarket, and both use British Telecom's Prestel network which links TV sets (supplied by a few microchips) to central computers down the phone line. Telecard is offering home delivery of 3,500 super-

THE GUARDIAN

THE GUARDIAN