

SUMMARY 1

Read the article describing advances in medical technology. Then write a summary explaining the aims behind the development of the technology, and the issues that need to be addressed if the gadgets are to be suitable for the home. Write about 100 words and use your own words as far as possible.

A DOCTOR IN THE HOUSE

Brushing your teeth twice a day should keep the dentist away. But if a group of scientific researchers have their wish, it will make the rest of your body healthy too. A toothbrush that checks blood sugar and bacteria while you brush is currently in development in the USA. It is one of many gadgets proposed by engineers and doctors at the Center for Future Health in New York – others include a pair of spectacles that help to jog your memory, and a home camera designed to check for cancer.

The devices seem fanciful, but the basic principles are simple. The gadgets should make it easy for people to detect illness long before it strikes and so seek treatment far earlier than normal. Instead of relying on hi-tech hospitals, the emphasis is shifted to the home and easy-to-use gadgets. In the long run, the technology may even prevent illness by encouraging us to lead healthier lives.

Intelligent bandages are a good example. Powerful sensors within the bandage could quickly identify tiny amounts of bacteria in a wound and determine which antibiotics would work best. The cut could then be treated instantly, so avoiding possible complications.

Socks are long overdue for a makeover. In the future they will be able to automatically detect the amount of pressure in your foot and alert you when an ulcer is imminent.

All the projects should have far-reaching implications, but the biggest single

- development is a melanoma monitor designed
- to give early warnings of cancer. The device
- could be used to take a picture of your body
- each week, then compare it to previous
- images. If a problem is found, the system
- would advise you to get a check-up at your
- doctor's surgery.
- If all this sounds nerve-wracking, then help is
- at hand. Experts are also working on a 'digital
- doctor', complete with a comforting bedside
- manner. A standard computer would be able
- to understand your voice and answer
- questions about your symptoms in plain
- English and in a way which would calm your
- nerves.
- Stress is no sweat either. A portable
- communication aid could recognise certain
- phrases and tones and let you know when you
- are about to lose your temper. The software
- would also suggest ways of keeping your cool.
- Computer therapists are a little way off yet,
- but the projects are ready to be prototyped
- and trialled. Researchers are still struggling,
- however, with making the technology cheap
- and simple enough for the domestic user. That
- is going to be the difficult part.

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Using linking words

EXAMINER'S TIP

When writing a summary, you often have to make a series of separate points. You can link them in different ways.

To build up a list of points, use linking words such as *firstly*, *secondly*, *also*, *in addition*, *as well as*, *furthermore* and *moreover*.

Linking words which show contrast include *but*, *although*, *on the other hand*, *in spite of*, *despite*, *however* and *nevertheless*.

Words for reasoning include *because*, *as*, *since*, and *for this reason*. Result or consequence can be expressed by *so*, *consequently*, *therefore* and *as a result*.

You can round off your argument or list of points with expressions like *Finally*, *On balance*, *To sum up* and *In conclusion*.

Apart from showing the examiner that you can reason and sequence your ideas clearly and logically, using linking words will also demonstrate that you are in control of sentence structure, and your paragraph will flow much better. This will help you to gain the highest marks.

NOTE-TAKING 1

Read the article about special hi-tech spectacles which are being adapted to help children suffering from dyslexia. Then write a set of notes, using the headings given.

TACKLING DYSLEXIA IN CHILDREN

Children who are dyslexic have problems processing specific visual information, resulting in trouble reading and writing. Until recently, it was thought to be language-related areas of the brain which were deficient, but new research suggests that dyslexics have difficulty with the control of eye movement, or 'eye wobble'.

Scientists based at the QuentiQ laboratory and researchers at the Dyslexia Research Trust are working together to adapt hi-tech spectacles, developed to monitor the eye movements of fighter pilots, into miniaturised versions for children as young as five.

It is hoped the technology will help children like the six-year-old boy who asked Dr Sue Fowler, a researcher at the Dyslexia Research Trust's clinic, 'Do you want to know a secret? All the words on the page move and I don't know how they do it because they don't have any legs.' Other children with dyslexia may report a disturbing sensation of 'glare' from the printed page, making them rub their eyes frequently. In some dyslexic children, reading causes a headache.

Professor John Stein, professor of neurology at Magdalene College, Oxford, has spent 20 years researching the connection between lack of eye control and reading difficulties. He says, 'We are visual animals and eye movements are possibly the most important movements we make because they allow us to inspect the world around us. I believe problems with eye wobble account for up to two-thirds of dyslexia cases.'

'Dyslexia is not a disease. It is a brain difference, like left-handedness. We also believe that a cell in the brain, the



magnocell, is related to eye movement. It seems that magnocells in dyslexics do not develop as well as those in good readers.'

The professor, who trained at Oxford and St Thomas's Hospital in London, will be meeting government officials to prepare for a trial of the hi-tech specs in primary schools in London and Hampshire. Professor Stein and his colleague, Dr Fowler, used the first prototype on a child last summer.

Professor Stein explains, 'Eye wobble is not obvious to the naked eye. The movements are small and very rapid. The hi-tech specs, which are worn for only a few minutes during tests, are the most accurate technique we have for detecting the amount of eye wobble. The child focuses on a

point 18 inches away and then follows a moving target. The specs show whether the child's eyes are tracking steadily, or whether they wobble. We would like the specs to be mass-produced, becoming cheap enough to be used in all primary schools.'

Dr Fowler adds, 'We see 800 children a year from all over the country. They are mostly aged seven to twelve, but people of any age can be assessed. Because we are a charity and investigations are part of our research, children are seen free.'

'If we can get children early, their brains are flexible enough to enable them to improve control. After seeing them at the clinic, we give patients daily exercises to enable them to keep their eyes still and fixed on one object. In time, we believe these exercises become etched onto the brain. The result is that reading improves greatly.'

Problems a dyslexic child may complain of

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Original use of the hi-tech specs

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How the specs are used to test children for dyslexia

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Treatment after the tests

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LINKED SUMMARY

Using the ideas in your notes, write a paragraph of no more than 70 words on the ways dyslexia may affect children, a technique for diagnosing dyslexia, and how dyslexia can be treated. Use your own words as far as possible.

Being aware of your reading speed

EXAMINER'S TIP

The speed at which students feel comfortable reading is a very personal matter and there is no doubt that individual speeds of reading vary hugely. Reading speed is not an indication of intelligence, although young people often believe it is.

The fact is, we all speed up and slow down as we read, depending on the difficulty of the content. We often do this quite unconsciously, whether we are reading for pleasure or reading for information. We sometimes read groups of words quite fast, taking in the information quickly and easily, without any conscious effort. You may be surprised by how quickly you 'get through' several chapters of an exciting novel. On the other hand, we naturally slow down or re-read a section of text when we want to be sure that we are getting the correct meaning from what we are reading.

Next time you read, you could try to be more aware of your reading speeds. When practising exam-style exercises, slow down a little if you begin to feel confused. Re-read a sentence or group of words, checking back with the question to see if this bit of text contains relevant information. Approaching your reading in this way is a more mature attitude to study than rushing through without understanding. Don't be worried about taking more time, as the few extra seconds of double-checking are definitely worth it.