

1. Analyse the text and its example summary "A doctor in the house".
2. Write your own summary on your notebook "The enemy within". Read the instruction carefully.

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-racking, 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.

Here is the example/model answer for summary you have just read.

SUMMARY 1: A doctor in the house

Content

Give one mark for each correct point, up to 6 marks. For full marks, both aspects of the question must be covered.

The aims behind the development of the technology

- Make it easier for people to detect illness before it develops
- People will seek treatment much earlier
- Less reliance on high-tech hospitals
- Gadgets which are usable in the home
- Prevent illness / encourage people to lead healthier lives

Issues that need to be addressed if the gadgets are to be suitable for the home

- Gadgets must become cheaper
- Gadgets must be simple enough

Language

Up to 4 marks. Use the table on page 90 as a guide.

Model answer

New medical equipment that we can use in our own homes may soon be available. Gadgets are being developed in America which will enable us to check the state of our bodies for any warning signs of illness. As a result, people would have the convenience of detecting illness without having to go to a hospital. Moreover, they would be likely to ask for treatment while their illness was at an early stage. The equipment might even encourage people to live more healthily. However, the gadgets need to be cheap and simple enough to be usable at home. (98 words)

Now it is your turn to write summary of "The enemy within".

Work according to the instruction given. (Next page!)

Read the article about allergies. Then write a summary explaining why some people develop allergies, why allergic reactions seem to be increasing, and how medication can help. Write about 100 words and try to use your own words as far as possible.

THE ENEMY WITHIN

Allergy has become more and more common over the last 30 years. Now one-third of us are affected by allergy at some point in our lives and half of these sufferers are children. In the UK, three million people suffer from asthma, and five per cent of children suffer from food allergy.

Allergy is a reaction that occurs when the immune system has a strange and unnecessary reaction to a substance which is normally harmless, such as pollen or peanuts. The immune system is there to protect the body against outside attackers, including viruses, bacteria and parasites. To defend your body against an attacker, the immune system remembers these dangerous micro-organisms and attacks them if it meets them again. This work is done by antibodies. The immune system in allergy sufferers makes antibodies against harmless substances, because it mistakenly believes them to be dangerous.

An allergic reaction may not happen the first time a sufferer meets an allergen (the substance causing the reaction, such as pollen, milk or strawberries). Sometimes people can eat nuts for years and then suddenly become allergic to them. What has happened is that the immune system has now decided the substance is dangerous and has made an allergy antibody. This antibody then attaches itself to cells, which contain histamine. When the antibodies meet the allergen the next time, they attempt to destroy it. As they do that, the surface of the cells is broken, and histamine is released. The histamine and other chemicals inflame the tissues. This leads to the symptoms

of allergy, such as swelling, rashes, sneezing, sore eyes and breathlessness. Anaphylaxis is the most severe allergic reaction of all and is most often triggered by wasp or bee stings or peanuts. This must be treated immediately.

Allergies run in families. Some people are born with the ability to make lots of allergy antibodies, and they are more likely to develop allergies and allergic disorders such as hay fever and asthma.

Experts believe more people have developed allergies because of changes in our lifestyle which have exposed us to more allergens. We eat more processed foods, with a wide range of additives and colourings; more and more people have central heating and double glazing, making our houses warmer and less draughty – an ideal environment to breed the house dust mite.

There may also be a link between allergies and antibiotics. At one time our immune systems were kept busy fighting off disease and trying to win the battle for health, but antibiotics have reduced the amount of work our immune systems have to do. Now experts think they may direct spare energy to harmless substances such as strawberries. In other words our immune systems have become over-sensitive.

A good deal of research is being devoted to finding a cure for allergies. Sufferers may be given medicine to control symptoms, and they may also be offered tests to find out what substances trigger an allergic reaction so that they can avoid contact with these in future.

