

EXERCISE

2

READING AND ANSWERING QUESTIONS

Read the paragraph about DNA testing. Then answer the questions.



IMPORTANT NOTE:

DNA (deoxyribonucleic acid) testing is a scientific method for establishing people's identities. It can be used to identify criminals, eliminate the possibility of someone's guilt, or determine the biological likelihood of a parent-child relationship. As you read, pay attention to the process of performing a DNA test.

SOURCE
2

cheek: the fleshy part of the face between the mouth and the ear

swab: an absorbent stick

extract: withdraw

probe: an instrument used to explore an area

strand: a length twisted together like a rope

reliable: trustworthy, sure

DNA THE EASY WAY

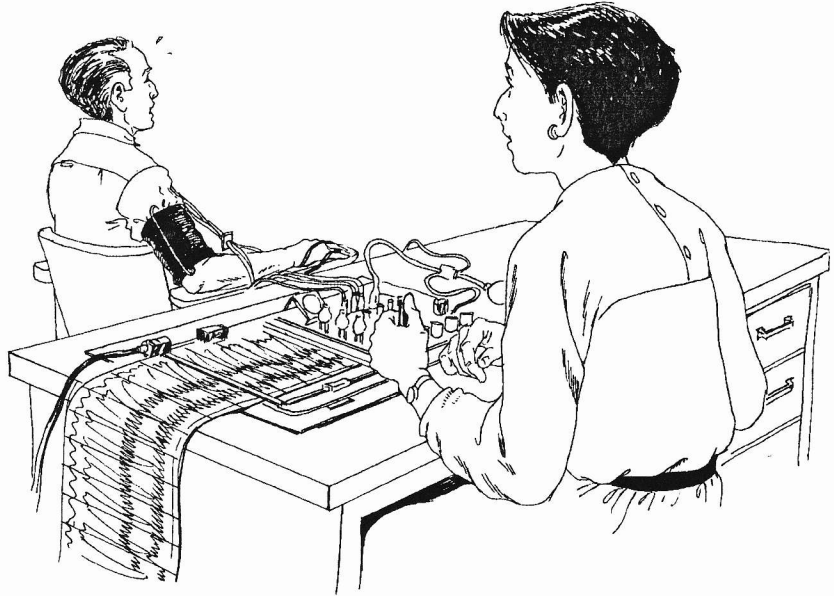
Believe it or not, the process of completing a DNA test is not very difficult. First of all, human cells must be collected. The cells can be collected from a person's **cheek** using a **swab**. The next step is to send this cell sample to a laboratory, where scientists **extract** the DNA from the swab and create many samples from it. Then the samples are put into a gel mixture, and are subjected to an electric current. A DNA **probe** can then be used, which attaches itself to the sample. Each person produces a unique location of DNA attachment, and this is how the identification works. Ultimately, scientists develop the film of this unique DNA **strand**. This type of DNA test becomes more **reliable** as more probes are used to test the strand. DNA testing has become very popular, so it is now available on the Internet. Ordinary people can now order in-home DNA tests and get their results in just a few days.

EXERCISE

1

READING AND ANSWERING QUESTIONS

Read the paragraph that describes a polygraph test. Then answer the questions. As you read, pay attention to the process that occurs.



Vocabulary is highlighted and defined in the margin so students don't have to break their concentration while reading.

SOURCE
1

physiological: relating to the physical processes of an organism

device: a machine

respiratory: breathing

pulse: rhythmic beats caused by the contractions of the heart

tip: the point or end of an object

electrode: a device used to transmit electric current

preceding: previous, former

POLYGRAPH TESTING

Many people know the terms *polygraph* and *lie detector test*, but many are not familiar with how this test actually works. The test uses a process that analyzes the **physiological** reactions in a person's body while he or she answers questions. First, a **device** called a pneumograph is attached to a person's chest to record breathing patterns. Any abnormalities in **respiratory** patterns are recorded during an official interview. Next, a machine similar to those used in doctors' offices is attached to the person's upper arm to measure blood pressure. During this part of the polygraph test, the **pulse** and changes in blood pressure and heartbeat are recorded. Finally, skin responses are used as part of the lie detection examination. Usually, the **tips** of a person's fingers are attached to **electrodes**. An abnormal amount of sweating is an indicator that the person may be lying. After the **preceding** steps have been followed, polygraph experts analyze the results. From the data, the experts may conclude that the person is telling the truth, or they may decide that the person is most likely lying.