

First read the text. Then answer the questions.

Cloning

1

Cloning has been a hot topic for science fiction writers and film makers for many years now. The most famous writer to discuss cloning was Aldous Huxley, whose 1932 novel *A Brave New World* describes a world inhabited by clones. More recently, clones have featured in big Hollywood blockbusters like *Jurassic Park* and *Star Wars Episode II: Attack of the Clones*, as well as the gripping Canadian TV Series *Orphan Black*. However, it was arguably the cloning of Dolly the sheep and the surrounding media attention which really woke the world up to the latest advances in biology.

2

Cloning is the creation of a genetic replica of a cell or organism, which means that the copy has the same DNA as the original. This is something which is common in nature, for example, identical twins are genetic replicas of each other. However, when we talk about cloning, we usually mean replicas which are created artificially. Cloning has been practised for a long time in horticulture, such as in the creation of new types of roses, but cloning animals is relatively new.

3

Some people argue that cloning may help with problems such as how to produce enough food for everyone. By cloning cows that produce more milk or cereals that grow more abundantly, we will be able to deal with some of the future challenges of a rising global population. Another advantage is that it can be used to develop treatments for diseases or even for growing new organs, like the heart or kidneys, which can be used in transplants.

4

The popular belief is that clones are perfect copies of the original organism, and often enhanced to be stronger or better. However, in reality they contain the same defects as the original, so they may be more likely to catch certain diseases. It can also limit the natural variety found in life forms and many people argue that we should not be playing with nature in this way.

5

There are strong ethical concerns about human cloning so current research is limited and, in some countries, illegal. However, there is interest in the possibility of cloning extinct animals. In fact, scientists have already managed to clone extinct species like the Pyrenean Ibex and it may not be long before the Woolly Mammoth is walking the earth again.

Match the headings (A–F) to the paragraphs (1–5). There's one heading you don't need.

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|---------------|-------|--|
| 1 Paragraph 1 | _____ | A What are the benefits of cloning? |
| 2 Paragraph 2 | _____ | B What is the history of cloning? |
| 3 Paragraph 3 | _____ | C What is the future of cloning? |
| 4 Paragraph 4 | _____ | D What is cloning? |
| 5 Paragraph 5 | _____ | E Why is there so much talk about cloning? |
| | | F Why are some people against cloning? |

Match the purposes (A–E) to the phrases (6–10) listed below.

- | | | |
|--|-------|--|
| 6 like the heart or kidneys' | _____ | A facts that show why the idea is (or isn't) correct |
| 7 many people argue that we should not be playing with nature in this way' | _____ | B examples |
| 8 cloning has been practised for a long time in horticulture' | _____ | C explanations |
| 9 in reality they contain the same defects as the original' | _____ | D more information or details |
| 10 By cloning cows that produce more milk or cereals that grow more abundantly,' | _____ | E opinions |

Vocabulary 1: Complete the text with the words and phrases in the box.

groundbreaking breakthroughs upbringing cutting edge far-reaching

Hi Kim, I've just got back from the Science and Technology Museum. It was awe-inspiring! As you enter the museum, you see a room full of science equipment – from the most old-fashioned technology to the most

(1) _____. Then there's a room where you can see a movie about (2) _____ discoveries that have been made by scientists – for example, the (3) _____ consequences of discovering DNA. The most interesting room is the one that's devoted to recent medical (4) _____. You can learn all about genetics and find out how much our behaviour is influenced by our genes and how much it's influenced by our (5) _____.

Vocabulary 2: Choose the correct options to complete the text.

Apart from that I haven't (6) **got up / lived up** to much. Right now I'm at home looking after my little brother. By the way, thanks for (7) **looking up / standing up** for me in class yesterday in that debate we had about genetics. I didn't know what else to say to Katia and I couldn't (8) **get away / get through** to her with my arguments. It was like she wasn't paying attention to what I was saying. I feel that she (9) **looks down / gets up** on me sometimes. Just because she gets higher marks in science than I do, it doesn't mean that she's always right! It was great that we won the debate in the end. ☺ Anyway, I've got to go, Kim. I should (10) **look up / check up** on my brother – he misbehaves if I leave him alone for too long!

Grammar 1: Complete each gap in the text with the correct relative pronoun (*that, which, who, whose, what* or *where*).

One of the things (11) _____ we learned about at school was robotic surgery. Robotic surgery, (12) _____ is now being performed on real patients, is when a robot is used during operations. Even though doctors decide (13) _____ the robot will do, the robot is, in some cases, probably better than his human boss. A robot, (14) _____ hands don't shake like ours do, is better at certain procedures because it can move more accurately than a human surgeon. This is very useful in cases (15) _____ accuracy is especially important and robots could soon be involved in every kind of operation.

Grammar 2: Write the correct form of the verb in brackets to complete the text.

(16) _____ (Study) science is now more important to me than ever. After (17) _____ (visit) the Science and Technology Museum, I appreciate my science lessons even more than I used to. I'm now actually thinking of studying science at university. The information (18) _____ (give) on our tour of the museum was incredibly interesting. Science is a difficult subject, but if you see scientific discoveries in front of you, it helps you understand what you're learning more easily. The tour guides (19) _____ (show) people around the museum are really fascinating to listen to. They help visitors to understand the exhibits by (20) _____ (talk) about them in a simple way.