

GENETIC ENGINEERING

Scientists have always tried to make things better, stronger and faster. In the previous two centuries the emphasis was on machines: from household (1) to reusable spacecraft. However, the (2) in this century cannot be (3) without a microscope as genetic engineering changes the world from within. From disease-resistant crops to pigs with low-fat meat, researchers have (4) numerous breakthroughs by (5) the genetic make-up of animals and plants. But who could have imagined that goats would be able to produce spider silk? Spider silk is an amazing (6) – it is five times stronger than steel, yet light enough to make protective clothing.

Unfortunately, spiders cannot be farmed because they have a (7) to eat each other! However, genetic engineers have finally (8) how to produce the protein (9) on a large scale by creating transgenic goats. The gene for producing the silk protein was inserted into goat embryos and when these reach (10) , they make the protein in their milk. Once extracted from the milk, the protein is made into a fibre almost identical to the silk of a spider's (11) Innovations like this are incredible and seem likely to become increasingly common, but they (12) serious issues about the right of human beings to tamper with the DNA of animals in this way.

Instruction: Read the text and decide which answer best fits each space.

| # | A | B | C | D |
|----|------------|--------------|---------------|-------------|
| 1 | buttons | compounds | appliances | software |
| 2 | advance | progress | machinery | research |
| 3 | gazed | watched | stared | viewed |
| 4 | taken | made | done | come |
| 5 | modifying | tampering | transferring | creating |
| 6 | emission | patent | substance | liquid |
| 7 | precaution | tendency | procedure | conclusion |
| 8 | phased out | taken out | filtered out | figured out |
| 9 | shortly | artificially | provisionally | ordinarily |
| 10 | immaturity | age | adulthood | top |
| 11 | web | wheel | line | cell |
| 12 | develop | raise | sort | give out |