How They Cloned A Sheep

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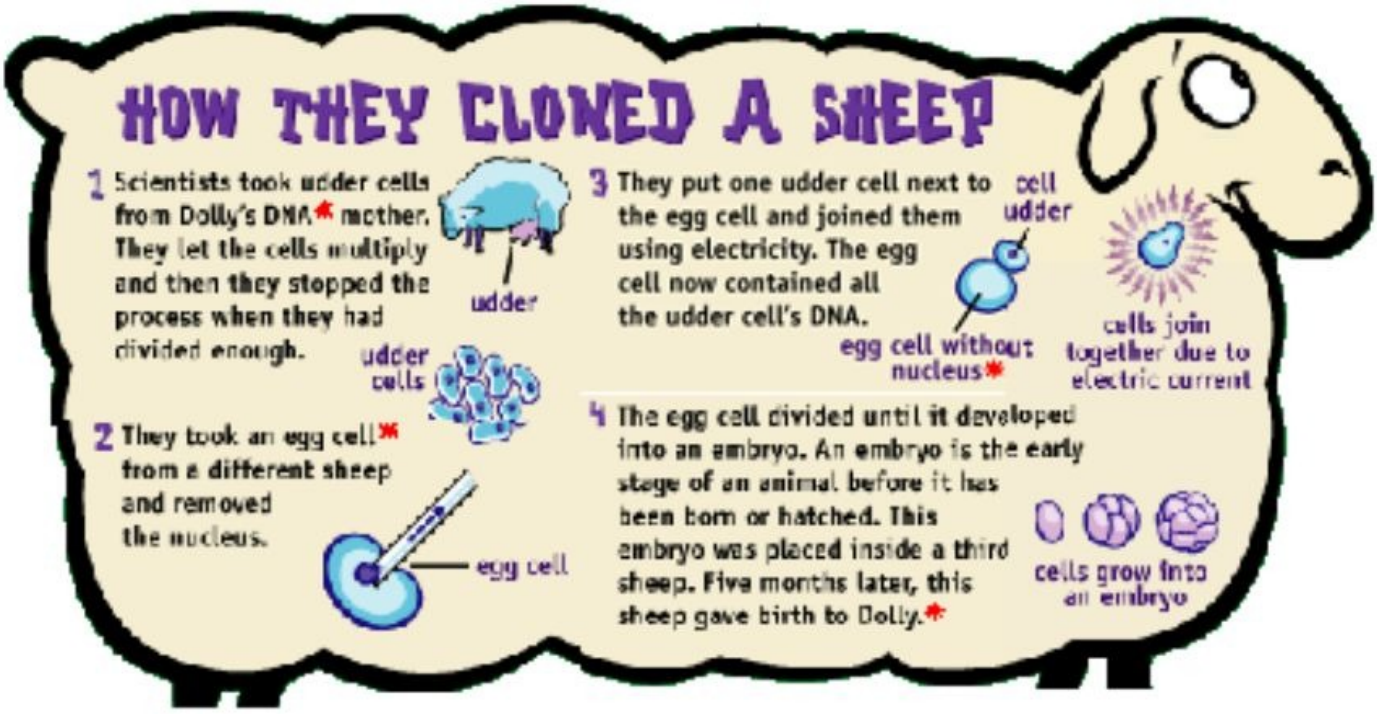

How they cloned a sheep

1. Scientists took udder cells from Dolly's DNA mother. They let the cells multiply and then they stopped the process when they had divided enough.

2. They took an egg cell from a different sheep and removed the nucleus.

3. They put one udder cell next to the egg cell without a nucleus and joined them using electricity. The egg cell now contained all the udder cell's DNA.

4.The egg cell divided until it developed into an embryo. An embryo is the early stage of an animal before it has been born or hatched. This embryo was placed inside a third sheep. Five months later, this sheep gave birth to Dolly.

Name: _____ **Date:** _____

1. What did scientists remove from the egg cell of a sheep?

A. the nucleus

B. the embryo

C. DNA

D. udder cells

2. As part of the process of cloning a sheep, scientists joined the egg cell to an udder cell using electricity. Based on this evidence, what conclusion can be made?

A. Cloning a sheep requires many egg cells.

B. It there are enough udder cells, no egg cell is required to clone a sheep.

C. Both an egg cell and an udder cell are needed to clone a sheep.

D. A sheep can be cloned using only an udder cell.

3. This passage describes the sequence of events involved in cloning a sheep. What happened after the egg cell developed into an embryo?

A. The egg cell was joined to an udder cell using electricity.

B. The embryo was placed inside another sheep.

C. Scientists took udder cells from Dolly's DNA mother.

D. Scientists removed the nucleus from the egg cell.

4. Based on the information in the text, what can you infer about the process of cloning a sheep?

A. Cloning cannot be done more than once.

B. Cloning a sheep can happen overnight.

C. Cloning does not happen naturally in sheep.

D. Cloning is the easiest way to produce sheep.

5. What is the main idea of this text?

A. An embryo is the early stage of an animal before it has been born or hatched.

B. Dolly's DNA mother provided the udder cells that helped scientists make Dolly.

C. Scientists cloned a sheep using udder cells from one sheep and an egg cell from another.

D. Udder cells and egg cells can be joined together using an electric current.

6. In describing the steps in the process of cloning a sheep, the author includes pictures with labels and captions in addition to the text. Why might the author have included these pictures?

A. to show the actual size of an egg cell, udder cell, and embryo

B. to illustrate the meaning of words or concepts that are explained in the text

C. to highlight information that is not part of the process of cloning a sheep

D. to fill up the space so that the author would not have to include more text

7. Choose the answer that best completes the sentence:

"The udder cell and the egg cell were joined using electricity. _____, the egg cell contained all the udder cell's DNA."

A. As a result

B. On the other hand

C. However

D. Instead

8. To begin the process of making Dolly, scientists took udder cells from which sheep?

9. How many different sheep did it take to make Dolly?

10. Usually, people refer to the animal that gave birth to a baby as the baby's mother. Why might the author have called the sheep that provided the udder cells Dolly's "DNA mother"?

Support your answer with evidence from the text.

