

● Techniques in Cloning

Answer the following questions using information from the textbook.

1. What is a clone? _____

2. Identical siblings have exactly the same DNA. Why aren't they clones of one another? _____

3. To create the sheep named Dolly, researchers took an egg cell from one adult female sheep and a nucleus from a mammary gland cell of another adult female sheep. Dolly is a clone of one of these adult female sheep. Which one? _____

4. In a few sentences, describe the cloning process used to produce Dolly, up to the formation of an embryo. _____

5. What is a differentiated cell? _____

6. Give three examples of differentiated cells found in your body. _____

7. During the development of an embryo, how do cells become differentiated? _____

8. Scientists generally accepted that once a cell became differentiated, it could not become any other kind of cell. How has the creation of Dolly changed that view? _____

9. Suppose you had a spinal cord injury in which two nerve cells were destroyed. How could the information on cloning help you walk again? _____
