

Lesson 2 Asexual Reproduction

Predict three facts that will be discussed in Lesson 2 after reading the headings. Write your facts in your Science Journal.

Main Idea

What is asexual reproduction?

I found this on page _____.

I found this on page _____.

Types of Asexual Reproduction

I found this on page _____.

I found this on page _____.

I found this on page _____.

I found this on page _____.

I found this on page _____.

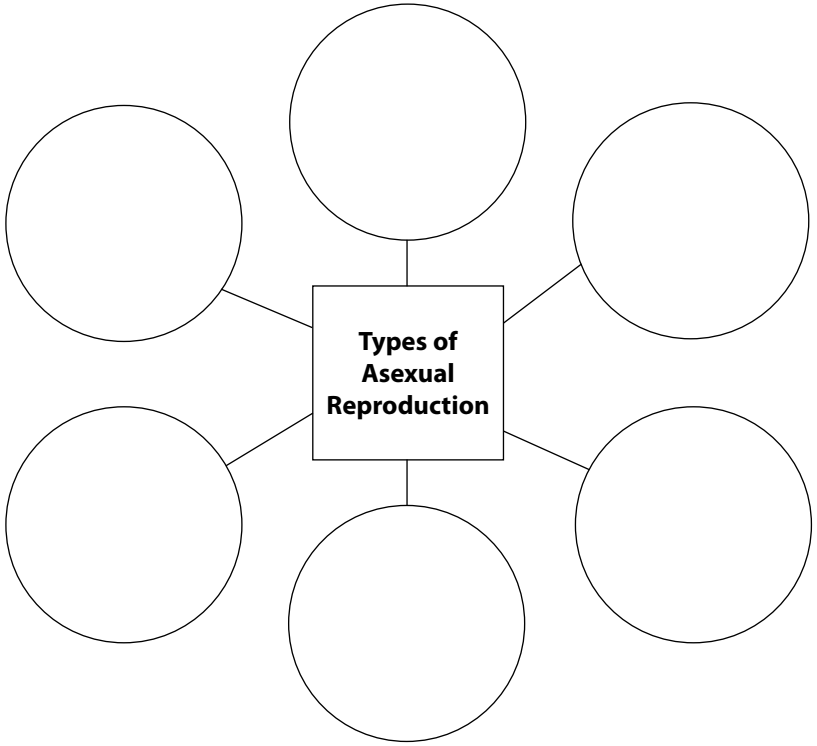
Details

Identify key points about asexual reproduction. Cross out the terms that do not apply to the process.

single parent organism	fertilization	genetically identical	meiosis
diploid parent cells	offspring produced	2 parent organisms	haploid daughter cells

Summarize asexual reproduction in your own words.

Identify the 6 types of asexual reproduction.



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Lesson 2 | Asexual Reproduction (continued)


Main Idea

I found this on page _____.


I found this on page _____.


I found this on page _____.

Details

 **Sequence** the steps of cell division through fission.

- | |
|--|
| 1. Fission starts with a prokaryote, which does not have a membrane-bound nucleus. |
| 2. The prokaryote's _____ is copied. |
| 3. The cell grows longer, pulling the two _____ apart. |
| 4. The cell membrane _____
_____. |
| 5. The cell splits. Two _____ are formed. |

 **Write** a complete sentence that defines mitotic cell division and identifies what type of organism undergoes the process.

 **Draw** a representation of budding. Write a definition of the term on the lines below your drawing.

Definition: _____

Lesson 2 | Asexual Reproduction (continued)

Main Idea

I found this on page _____.

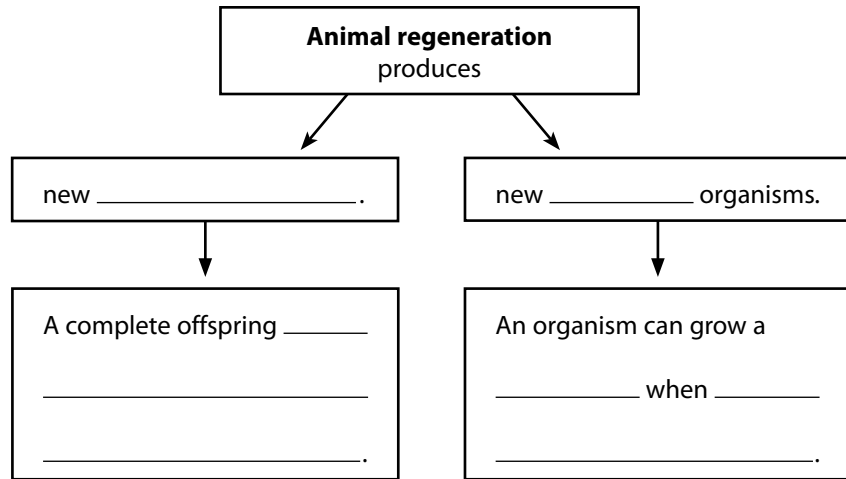
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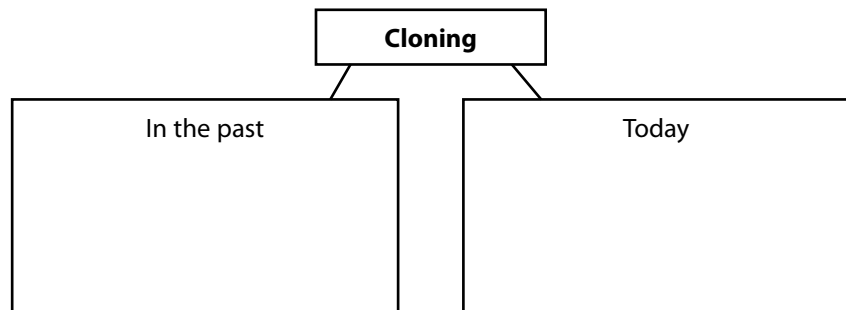
Details

Explain how animal regeneration can produce two results.



Identify the structures of plants usually involved in vegetative reproduction.

Explain how the definition of cloning has changed over time.



Identify three advantages of using tissue culture to clone plants.

1. _____

2. _____

3. _____

Lesson 2 | Asexual Reproduction (continued)


Main Idea

I found this on page _____.

Details


Sequence the steps scientists used to produce the cloned sheep, Dolly.

1. A cell is removed from the first animal. DNA is removed from an unfertilized egg cell from a second animal.
2. The cells from the two animals are _____. The new cell contains _____.
3. The cell develops into an embryo in the lab.
4. _____ into the animal that donated the unfertilized egg.
5. A new individual is born. This individual is an _____.

 **Classify** features of asexual reproduction as advantages or disadvantages. Write "A" for advantage and "D" for disadvantage in the center column of the table below. Explain your reasoning in the right-hand column.

I found this on page _____.

Does not require a mate		
Can occur rapidly		
Produces little genetic variation		

 **Synthesize It** Use your understanding of asexual reproduction to explain why it is important that organisms reproduce in a variety of ways.

Reproduction of Organisms

Chapter Wrap-Up

Now that you have read the chapter, think about what you have learned. Complete the **What I Learned** column on the first page of the chapter.

Use this checklist to help you study.

- Complete your Foldables® Chapter Project.
- Study your *Science Notebook* on this chapter.
- Study the definitions of vocabulary words.
- Reread the chapter, and review the charts, graphs, and illustrations.
- Review the Understanding Key Concepts at the end of each lesson.
- Look over the Chapter Review at the end of the chapter.



Summarize It Reread the chapter Big Idea and the lesson Key Concepts. Imagine how the human population would be different if humans reproduced asexually. Explain how this could be both an advantage and a disadvantage to humans and to other organisms.

Challenge Design two models that demonstrate how genetic material is passed from parents to offspring in meiosis and in mitotic cell division. Present your models to the class, and explain the processes that they represent.