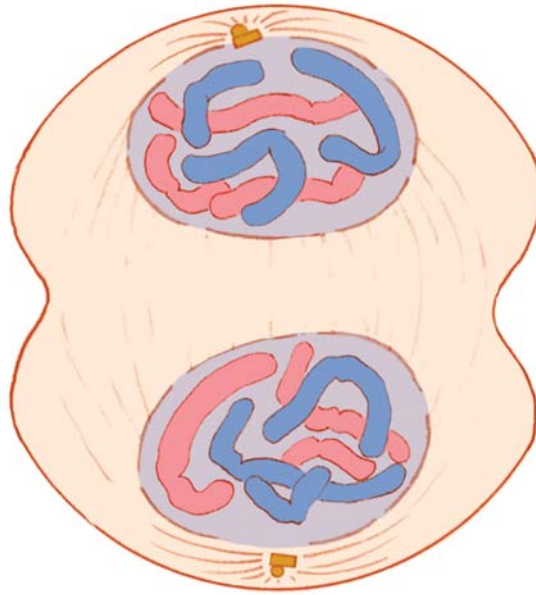


## From One to Many



We know that living things—humans, plants, animals—die one day. Suppose you have a vase with roses and sunflowers. The flowers will wilt and wither away in a few days. Then how do we find flowers to put in our vase the next day? How are there enough roses at the florist every day if all these roses die? The answer is pretty simple. Plants, animals and human beings all reproduce. So, even when a particular flower or bird dies, the species as a whole continues to live because there are many others of the same kind. Reproduction is essential to the survival of all species. Without it, they would perish. Imagine if everyone in the world decided to not have children, there would come a time when no human beings are left on earth!

### Where are Babies From?

Reproduction—“re + production”—is the production of new offspring (another word for child) from one or two parents. It is of two kinds: sexual and asexual. Asexual reproduction is the process in which one organism produces a copy of itself without the help of another organism. For example: a bacteria can split into two cells on its own, tulips can reproduce through bulbs, and strawberries through stems. Sexual reproduction involves two individuals of the opposite sex (male and female) who come together to produce an offspring. Just as human beings have two parents, most animals and many plants do too.

**Asexual Reproduction**

When an organism reproduces on its own, it creates a copy of itself. Let's see how this happens in onions and potatoes. If you leave the potato out for a few days, it begins to develop new stems or sprouts from its eyes. Each of these sprouts can become a new potato plant. And each of these new plants will be identical to the parent. What about onions? An onion is a bulb or an underground stem. Smaller "bulblets" form at the bottom of the bulb and can give rise to new plants.

**Sexual Reproduction**

Do you ever find your parents arguing over who you resemble more? Your mother might say that you have her eyes. Your father might say you are tall like him. And sometimes the fighting doesn't stop there! Your granny, uncles or cousins may claim you are a bit like them. And they are not wrong! Sexual reproduction produces offspring that have some of the characteristics of both parents but are not identical to either of them.

Sexual reproduction happens in plants, animals, insects and fish. Mammals, such as human beings, dogs, cats and hippos can give birth to live young offspring. Animals like pigeons and lizards lay eggs.

**Generating Without Babies?**

What is common to a lizard, a starfish and a salamander? They can regenerate lost body parts. For example, when a lizard is being chased by a predator, it drops its tail only to have it grow back later. The star fish can do the same with lost arms.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. What is reproduction as defined by the passage?

- A another word for cloning
- B copying a work of art
- C the production of offspring from one or two parents
- D a way for organisms to correct their flaws

2. What does the author describe in the passage?

- A how different organisms reproduce
- B where florists get their supply of flowers
- C how a species can go extinct
- D the science behind sexual reproduction

3. Onions reproduce asexually. What evidence from the text supports this conclusion?

- A "An onion is a bulb or an underground stem."
- B "When an organism reproduces on its own, it creates a copy of itself."
- C "Each of these sprouts can become a new potato plant."
- D "Smaller 'bulblets' form at the bottom of the bulb and can give rise to new plants."

4. Based on the passage, why might a starfish lose its arms?

- A The arms of starfish are very weak and easily detach.
- B The arms of starfish become infected by disease and fall off.
- C The starfish detaches its arms to escape from predators.
- D The starfish detaches its arms to catch food.

5. What is this passage mainly about?

- A how babies are born
- B sexual and asexual reproduction
- C plant reproduction
- D lizard survival methods

6. Read the following sentences: "Suppose you have a vase with roses and sunflowers. The flowers will wilt and **wither** away in a few days. Then how do we find flowers to put in our vase the next day?"

What does "**wither**" mean?

- A set roots
- B grow
- C bloom
- D dry up

7. Choose the answer that best completes the sentence below.

There are two types of reproduction, \_\_\_\_\_ sexual and asexual reproduction.

- A namely
- B thus
- C ultimately
- D in contrast

8. Define asexual reproduction.

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9. Why doesn't sexual reproduction produce identical offspring?

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10. Some animals are able to re-grow lost limbs. What type of reproduction does this regeneration resemble, and why? Support your argument using the text.

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**Teacher Guide & Answers****Passage Reading Level:** Lexile 830

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8. Define asexual reproduction.

**Suggested answer:** Asexual reproduction is the process in which one organism produces a copy of itself without the help of another organism.

9. Why doesn't sexual reproduction produce identical offspring?

**Suggested answer:** Sexual reproduction does not produce identical offspring because two parents are involved, so the offspring will inherit characteristics from both parents.

10. Some animals are able to re-grow lost limbs. What type of reproduction does this regeneration resemble, and why? Support your argument using the text.

**Suggested answer:** Limb regeneration most resembles asexual reproduction because only one "parent" organism is required.