

18 Selection – Part 2

Name: _____ Class: _____ Date: _____

Vocabulary

Write each word three times.

English	Write it 3 times (English)		
adapted	_____	_____	_____
reproduce	_____	_____	_____
Antibiotic-resistant bacteria	_____	_____	_____
selective breeding	_____	_____	_____
crops	_____	_____	_____

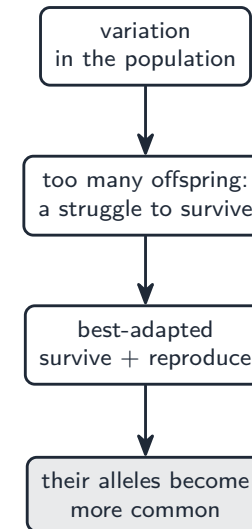
Recall

New alleles from mutation, plus the struggle to survive, drive how species change over time.

New ideas

Read these first, then do the Practice.

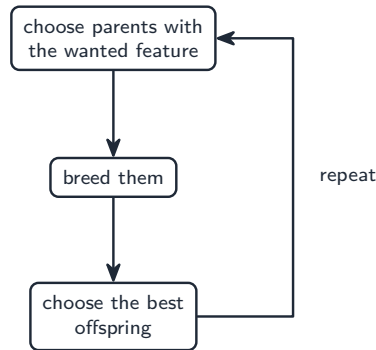
■ 1 Natural selection



The individuals best **adapted** to the environment are more likely to survive and **reproduce**, so their helpful alleles spread. **Antibiotic-resistant bacteria** are a real example.

■ 2 Selective breeding

In **selective breeding**, **humans** choose which organisms breed:



humans choose, over many generations

This improves **crops** (higher yield) and farm animals (more milk). The key difference: in natural selection the **environment** chooses; in selective breeding humans choose.

Watch out: in **natural selection** the *environment* chooses which survive; in **selective breeding** *humans* choose which breed – same idea, different chooser. The helpful **alleles** of the survivors become more common over generations.

Practice

Try these in order.

18.6 In natural selection, which individuals are most likely to survive? [1]

18.7 What happens to the alleles of the survivors? [1]

18.8 Give a real example of natural selection. [1]

18.9 In selective breeding, who chooses which organisms breed? [1]

18.10 Give one use of selective breeding. [1]

18.11 Challenge. A farmer wants cows that give more milk. Describe how selective breeding could achieve this over several generations. [3]