

18 Selection – Part 2

Name: _____ Class: _____ Date: _____

Vocabulary 词汇

Write each word three times. 把每个单词抄写三遍。

English	中文	Write it 3 times (English)
adapted	适应	_____
reproduce	繁殖	_____
Antibiotic-resistant	耐药	_____
bacteria	细菌	_____
selective breeding	选择育种	_____
crops	农作物	_____

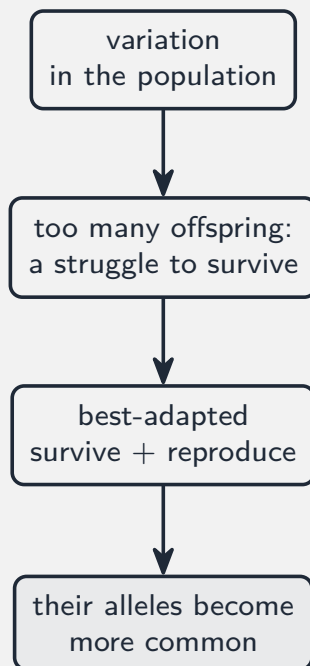
Recall

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

New ideas

Read these first, then do the Practice.

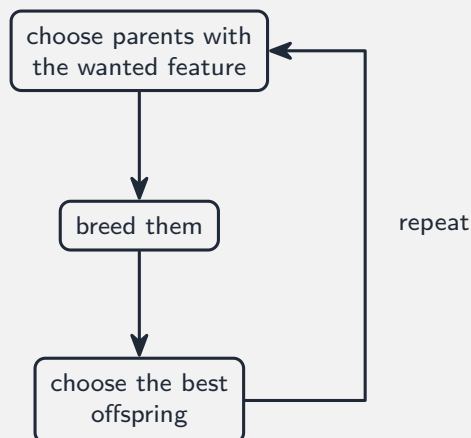
■ 1 Natural selection



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

■ 2 Selective breeding

In **selective breeding** 选择育种, **humans** choose which organisms breed:



humans choose, over many generations

This improves **crops** 农作物 (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]