

Darwin, natural selection and antibiotic resistance

What is natural selection?

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What is evolution?

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What causes new alleles to appear in a population?

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Put natural selection in order: variation, alleles passed on, survival and reproduction, proportion increases.

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How do antibiotic-resistant bacteria emerge?

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What is the selection pressure in antibiotic resistance?

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Why does antibiotic resistance support Darwin's theory?

A change in the inherited characteristics of a population over many generations.

Organisms better adapted to their environment are more likely to survive and reproduce, passing on their alleles.

Variation, survival and reproduction of the better adapted, alleles passed on, proportion with the advantageous allele increases.

Mutation.

The antibiotic.

A mutation makes a bacterium resistant.
The antibiotic kills the others, so the resistant ones survive, reproduce and pass on the allele.

It shows natural selection happening: variation, a selection pressure, survival of the resistant, and inheritance of resistance.