

13-BY7 Fitness to survive

Evolution happens in different environments... if something lived in the Sahara Desert would go to have less fur while something in the Arctic would have lots and lots of fur and so on really. The principle is that all animals in the right environment will live if they have the right traits to survive in that area.

Claim(s)

Environmental factors have a role in evolution.

Animals will survive in an environment if they have the right traits to survive under those environmental conditions.

Any challenges to the expressed claim?

Anything to disagree with?

Any clarification needed?

Question(s).

In what way could evolution be described as happening by 'trial and error'?

Note: Individuals produce more offspring than their environment can support, and some die because of factors such as predation, food shortage or disease. These factors are known as environmental selection pressures and they determine which individuals will do best at surviving and reproducing. Individuals that inherit advantageous traits have a selection advantage over those that lack that characteristic; they survive and reproduce, passing on their advantage to their offspring.

Mutations can alter the genes of individuals in a beneficial or detrimental manner. These changes will be inherited if they occur in the DNA that is passed on via sexual reproduction. Variation in a population makes that population more able to adapt to changing circumstances over time. When the numbers in a population become very small, as in the case of some threatened species, the population's lack of capacity to respond to environmental changes makes them more likely to become extinct.