

# The FRAME Routine

Key Topic  
Natural Selection

is about...

Main idea

Essential details

Main idea

Essential details

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Essential details

So What? (What's important to understand about this?)

# Conditions Required for Natural Selection (Extension)

- Use the information from your frame to construct your own scenario of natural selection.
- Your scenario can be written in a story-like format and must include a plant or animal species.
- Your plant or animal species can be fictional or real. Your scenario must specifically describe how your species evolved and why.

# The FRAME Routine

Key Topic  
Natural Selection

a mechanism that explains evolution, in which individuals that have inherited beneficial adaptations produce more offspring than others. Specific conditions are required in order for natural selection to occur:

## 1. Overproduction of Offspring

### Essential details

- Organisms have more offspring than can survive.
- Example: Sea turtles can lay anywhere from 70 to 190 eggs at a time, approximately one out of 100 typically survive.

## 3. Struggle to Survive

### Essential details

- Species compete for to obtain food, living space, water etc.
- Only the fittest will survive and reproduce
- Example: Jaguars with larger jaws and teeth can eat shelled reptiles. They are more likely to survive longer and leave more offspring compared to jaguars who only eat mammals.

## 2. Inherited Variation

### Essential details

- Offspring inherit their traits from their parents, in the form of genes
- Individuals of a species differ due to genetic variation.
- Example: Some jaguars may be born with a larger jaw size and teeth from others in the same jaguar population.

## End Result

### Essential details

- If all conditions are present, natural selection will occur
- Results in differential reproductive success
- Individuals that possess those favorable traits will live long enough to reproduce and pass down those traits to their offspring.

### So What? (What's important to understand about this?)

If the conditions are present, bacteria can evolve to be antibiotic-resistance. This can affect the medication available to humans when you have an infection and require antibiotics.