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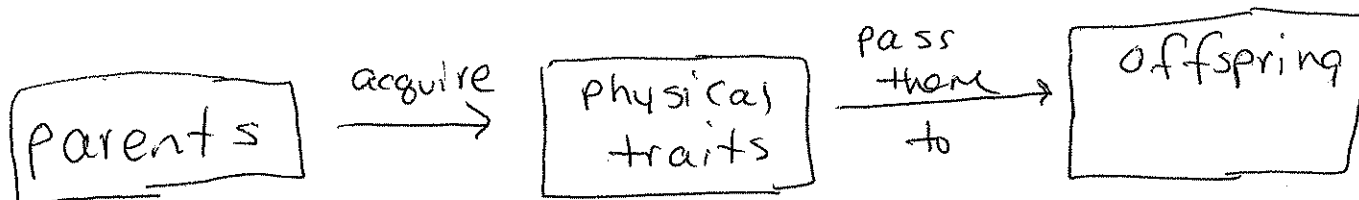
Life Science Notes 18
From Lamarck to Darwin

- When evolution was first hypothesized, scientists did not understand that genes existed.
- They did realize, however, that organisms were probably changing over time after looking at relationships between organisms and the fossil record.

Lamarck

~~Lamarck~~

- A French scientist named Jean Baptiste de Lamarck saw this and wondered how organisms change.
- Lamarck hypothesized that species change by keeping traits that were developed by their parents during their lifetime.
- This means that if you were to have a scar, your children would also have a scar.



I.E. Giraffes stretching neck to get leaves

- We know that this does not happen after centuries of studying how traits are passed from parent to offspring.
- We do not acquire our parent's physical changes. We acquire our parents DNA.

Charles Darwin

- In the mid-1800's, Charles Darwin sailed aboard the HMS Beagle as the ship's naturalist.
 - It was his job to record information about organisms he saw during his journey and report this information back to England.
 - Darwin collected plants, animals, and fossils all over the route of the ship, but what amazed him most was found on the Galapagos Islands.
 - The species he saw probably migrated from Central and South America.
 - There were few mammals, no amphibians, and 14 species of finches.
 - What really struck Darwin was how so many species of finches that were so different yet closely related could be on islands just a few miles apart.
- Darwin began to wonder if these species had evolved because their survival depended on it. Those that could get to and eat certain foods lived, while those that could not died.