

# Theory of Evolution

Department of Christian Education



# Overview

3 things to keep in mind  
before discussing  
scientific, apologetic  
topics:

1.
  - Apologetics = Greek word for “defense” or “answer.”
  - Goal is to **DEFEND** the faith, not to **OFFEND** others.
  - Must discuss topics of scientific apologetics in a Christian, Christ-like atmosphere
  - To defend the faith with preparation, wisdom, and **Christian love**
  - To not prove a point, but to discuss the topics **rationally** and **gently** in Christian fellowship.

“Even if you should suffer for righteousness’ sake, you are blessed. “And do not be afraid of their threats, nor be troubled.” But sanctify the Lord God in your hearts, and always be ready to give a defense to everyone who asks you a reason for the hope that is in you, with meekness and fear” (1 Peter 3:14-15).

# Overview

3 things to keep in mind  
before discussing  
scientific, apologetic  
topics:

## 2.

- When discussing any controversial, scientific topic, **we are not proving whether it coincides or contradicts our faith.**
- Scripture and science come from the same Author, God Himself!
- Scripture = Word of God, science = process in how God created all things during the creation account in Genesis.
- Therefore, Scripture and science **have always gone hand in hand.**
- The false appearance that they can't coexist came from:
  - The misinterpretation of the Bible (Galileo Affair; Galileo & the Catholic Church)
  - Bad science (Spontaneous Generation; life comes from nonlife).

# Overview

3 things to keep in mind  
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3.

Remember that God's intent of Scripture is primarily for our salvation, not science!

*"Thus, taking terms too literally may convey more than, or even the opposite of, what the author intended" (John A. Bloom).*

# Introduction

**Darwin's Theory of Evolution:** Used to explain the origin of life in the scientific community.

We will ask:

- What is this theory and its implications?
- How do we respond to this?
- How does this theory fail to provide an adequate explanation on the Origin of Life
  - DNA sequencing as proof of intelligent design

# Darwin's Theory of Evolution

## 1. Individual Variation

Individual variations are exhibited in Individual organisms within each population of species.

These variations are due to mutations.

Mutations are generally beneficial, making the organism more suited for their environment.

# Darwin's Theory of Evolution

## 2. Heritability

Due to Natural Selection, organisms with advantageous traits will have a greater probability of success in reproducing.

# Darwin's Theory of Evolution

## 3. Difference between Generations

The individuals that survive against harsh conditions and have the ability to reproduce will create a new generation of offspring, which have more favorable traits than their predecessors.

This mechanism of adaptation will increase their survivability and reproducibility.



# Darwin's Theory of Evolution

## 4. Over Reproduction

Crowding of a species will render the resources of their environment relatively more scarce, leading to the organisms with advantageous traits surviving.

They will eventually pass their traits to their offspring. This shows that the fittest only will survive (Natural Selection).



# Implications of The Theory of Evolution

**Implication 1:** Natural Selection and Mutation is the means by which nature “creates” different species.

**Implication 2:** The theory of Evolution implies that the Origin of Life is a single cell.

That cell came into existence by forces of nature. There is no creator.

# Addressing Implication 1

- Natural Selection and Mutation is a true process that has been discovered by Darwin
  - **BUT** it cannot be set in motion until there is a process of producing “offspring” (children) of any organism.
- Producing children implies the pre-existence of “parents” or at least “a parent”...
- Raises the question:
  - “what is the first parent?”
    - Darwin answers: “the first parent that existed is the first cell that came into existence.”

# Addressing Implication 2

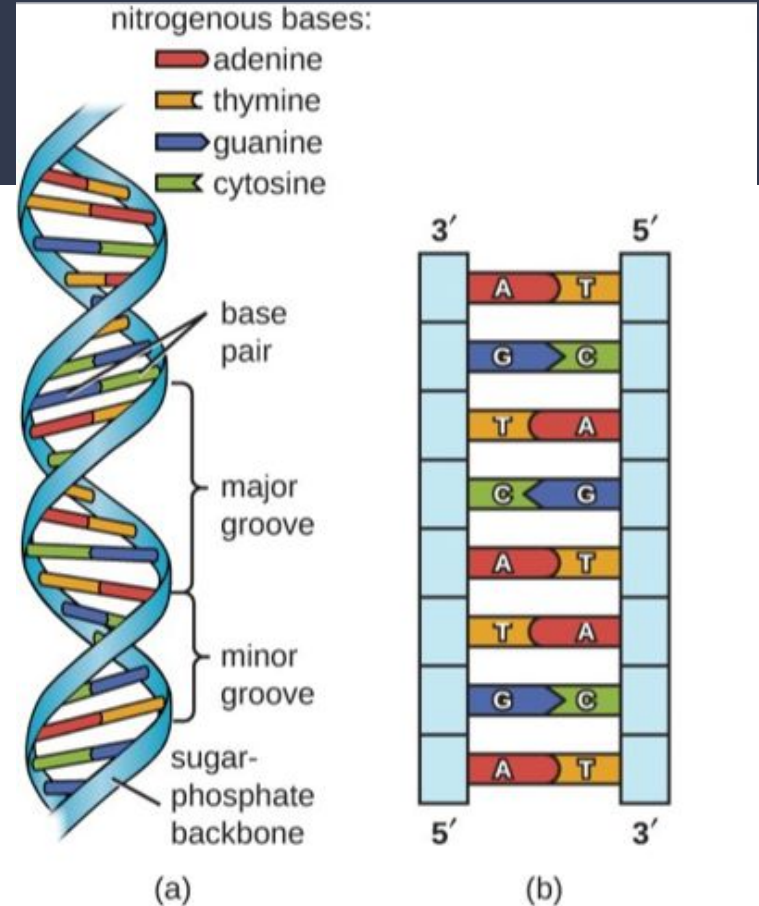
- At the time of Darwin until today, life is considered to be the existence of living cells.
- The cell at the time of Darwin was known to be composed of:
  - A nucleus
  - Cytoplasm
  - A membrane.
- Today, the cell has been discovered to be vastly complicated
  - many compartments
  - processes
- The discovery of the DNA
  - Scientists agree that cells carry a genetic code
    - Fully represents the species in whose cells it exists.

# Addressing Implication 2

- The question of the Origin of Life
  - **Can DNA come into existence by “nature”?**
    - The identity of the species in whom the cell exists: How the cell formed containing a “sequence” of chemicals that forms the DNA.
- This is the holy grail question because...
  - If the Origin of Life is the cell, and the cell came into existence by nature, then the DNA must have formed by forces of nature only.
- Since the DNA is formed of chemicals
  - attraction is called “Biochemical attractions”.

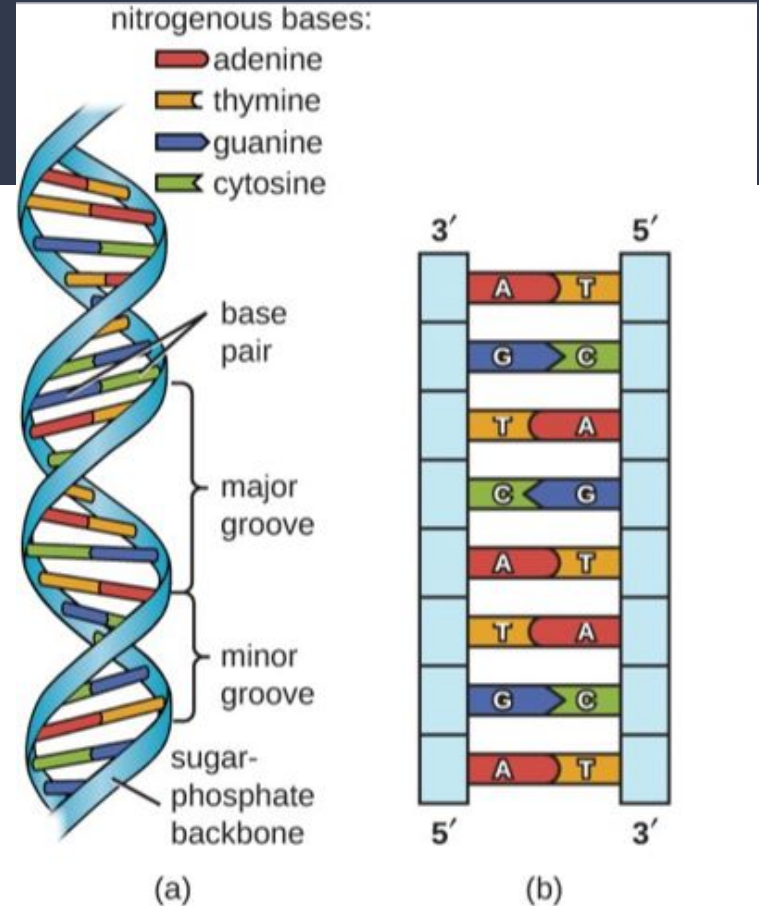
# DNA Sequence I

- DNA stands for **D**eoxyribo**n**ucleic **A**cid. It is the Chemical Blueprint of life.
  - DNA carries INFORMATION
- The information in DNA is stored by the ordering of certain chemicals: nucleotide bases.
  - Adenine (A)
  - Thymine (T)
  - Cytosine (C)
  - Guanine (G)
- They come in pairs called base pairs.
- Each organism, plant, animal, or human has a unique sequence of the DNA (fully defines the species).



# DNA Sequence I

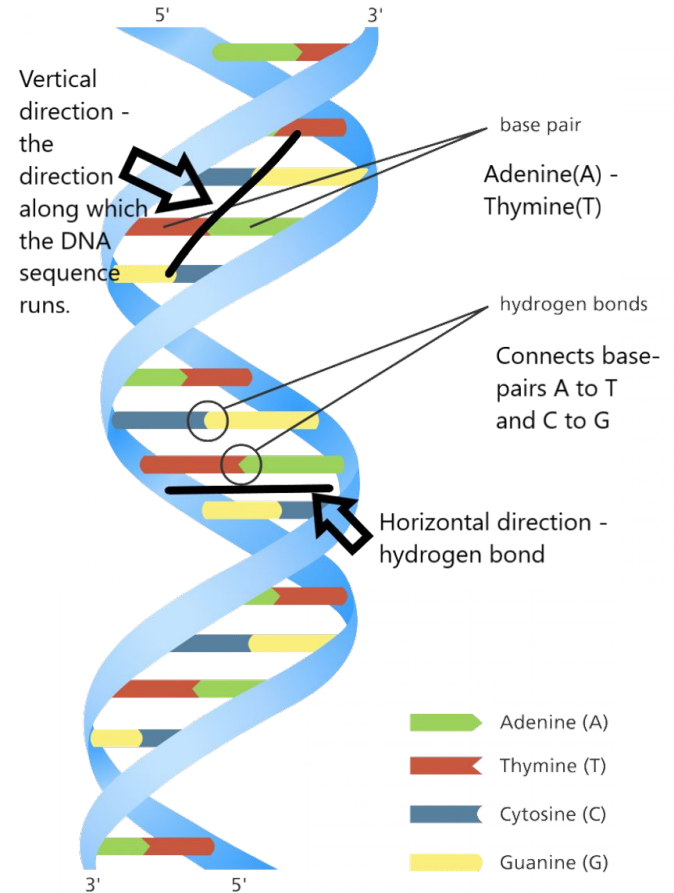
- Segments of the DNA are responsible for building “proteins” which sustain the organism.
- Imagine the DNA molecule as a “ladder”
  - Up and down the ladder is the DNA sequence
  - The steps of the ladder are what is called base-pairs:
    - Adenine (A) connected to Thymine(T),
    - Thymine (T) connected to Adenine (A)
    - Cytosine (C) connected to Guanine (G)
    - Guanine (G) connected to Cytosine (C)





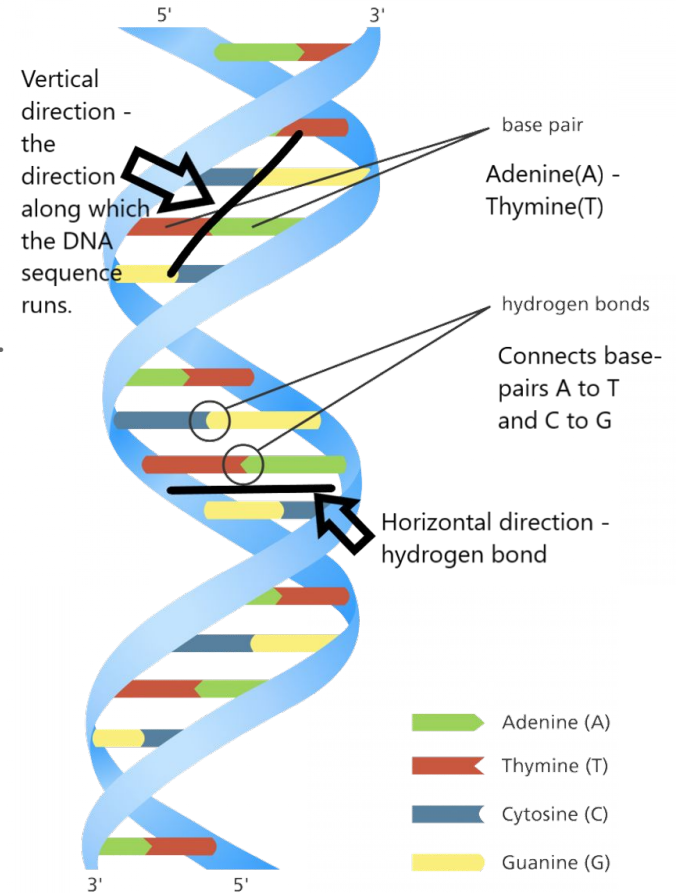
# The Vertical Axis of the DNA Molecule

- The helical structure of the DNA molecule: unique sequence along the vertical axis of the helical structure.
  - Hydrogen-based bonding.
  - Each of the A, T, C, or G are tied to the helical “rails” of the DNA molecule via a phosphate-based bonding.



# The Vertical Axis of the DNA Molecule

- Nucleotides are shown with color coding.
- Base pairs: the building blocks of the DNA molecule.
  - **Horizontal direction:** Base-pairs are bonded together by a hydrogen bond (black horizontal line).
- **Vertical direction:** Traverses from one base-pair to another.
  - Direction along which we travel along the direction of the DNA base-pair sequence.



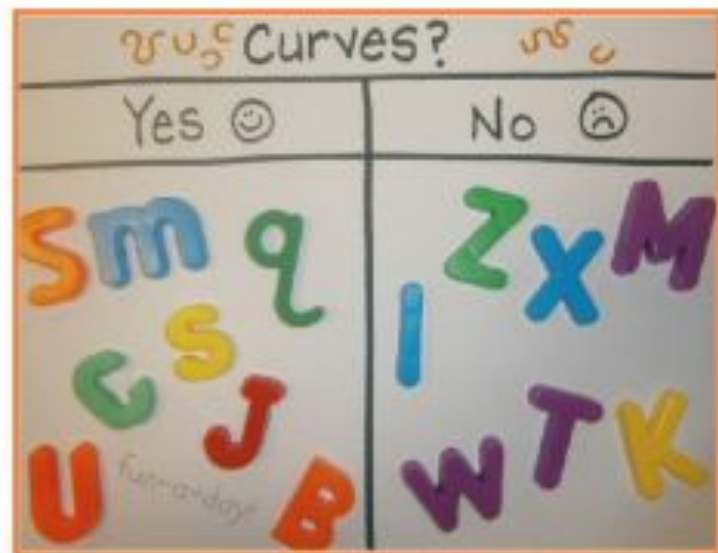
# The Most Important Question I

So, what is the bonding that defines the sequence of the nucleotide pairs along the vertical axis of the helical DNA molecule? Does it predict which base-pair will come after it?

Answer:

- NO. There is no predictability along the vertical axis, the sequence-carrying direction.
- There is no biochemical attraction along this direction
- There is just a “structural” phosphate bond to physically hold the structure together

What is the difference between these two?



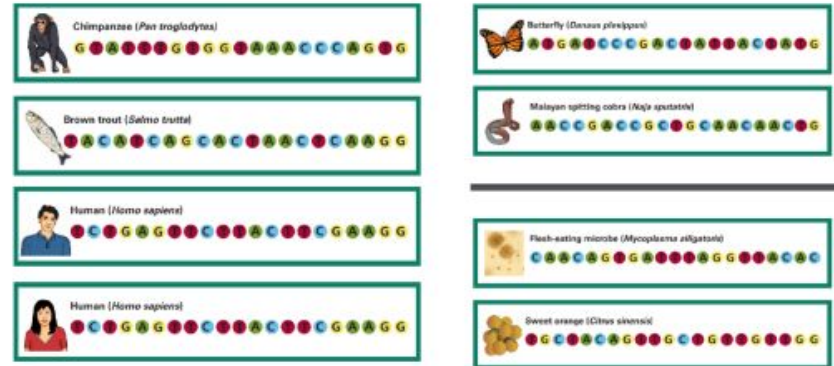
# The Most Important Question II

Why is that a crucial observation?

Answer:

- The Genome project: There is a **specific** sequence of the DNA that specifies each species.
- This sequence is the Information (as letter in a book) that fully defines the species, and in the case of the human DNA it is 3.2 Billion “letters” long.
  - DNA letters are only 4 (A, T, G, and C)

Each Species is its own book



# The Most Important Question III

So, if there are no natural forces or chemical affinities along the vertical direction that would be responsible for its order, then how is that order formed?

- No chemical forces (or others) that could form the DNA into an ordered information.

What else or who can form a sequence that nature cannot form?

- Evolutionists have to answer that question. We know the answer to it.

## Not Random

- The letters stick to the board by magnetic force
- But the “sequence” or the “order” of the letters is put by someone who knows the Alphabet



# Conclusion

- Life, in the form of different species, encodes all the traits of each species in its DNA.
- Where does all this sequential information come from?