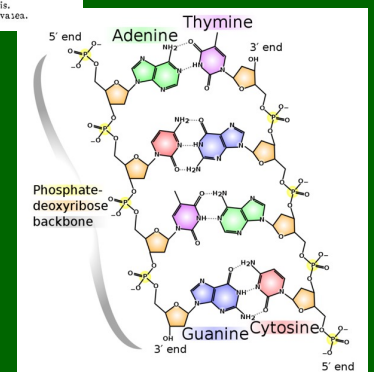
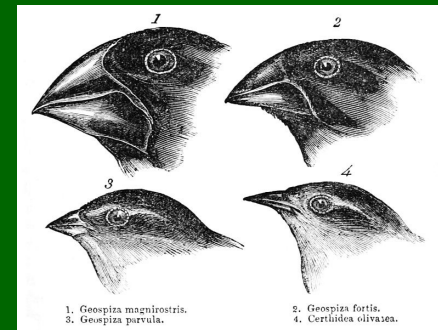
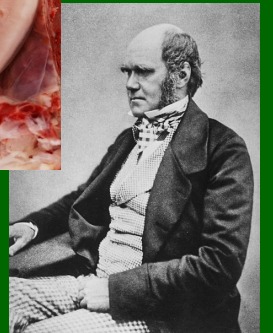


# Evolution

- What is Evolution?
- Example of Evolution
- Evidence for Evolution – Body Structures
- Evidence for Evolution – Fossil Record
- Evidence for Evolution – Embryological Development
- Evidence for Evolution – Vestigial Traits
- Evidence for Evolution – DNA



# Preview File

Please enjoy this preview of your Student Version of the presentation. Please note within this sample file:

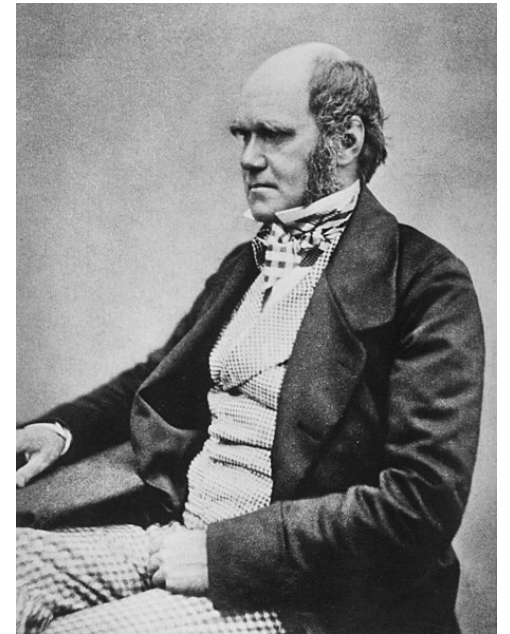
- Some slides appear blank because they have been removed
- Student versions have portions of the text removed which is given in the teacher version and appear as \_\_\_\_\_ which the students are to fill in
- Other slides may have ..... on them, this represents writing that has been removed on this sample

**The paid full version of your resource includes  
both Google Slides and PowerPoint and is  
Google Classroom Ready**



# What is Evolution?

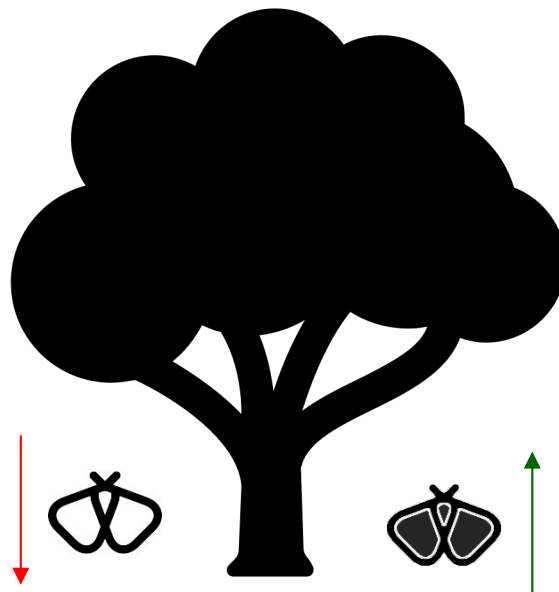
- Evolution was first thought of by Charles Darwin and Alfred Russel Wallace in the late 1850s
- \_\_\_\_\_
- Changes in traits that are passed down from parent to offspring



Charles Darwin

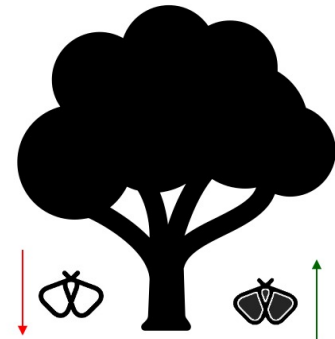
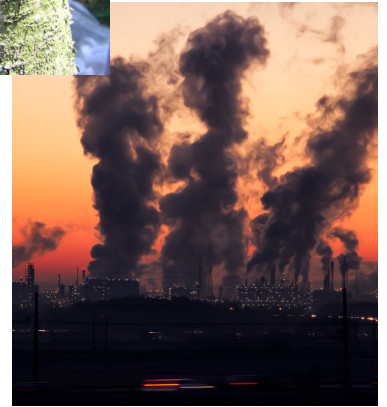
# What is Evolution?

- \_\_\_\_\_
- Changes that put an organism at a disadvantage cause their populations to decrease



# Example: The Peppered Moth

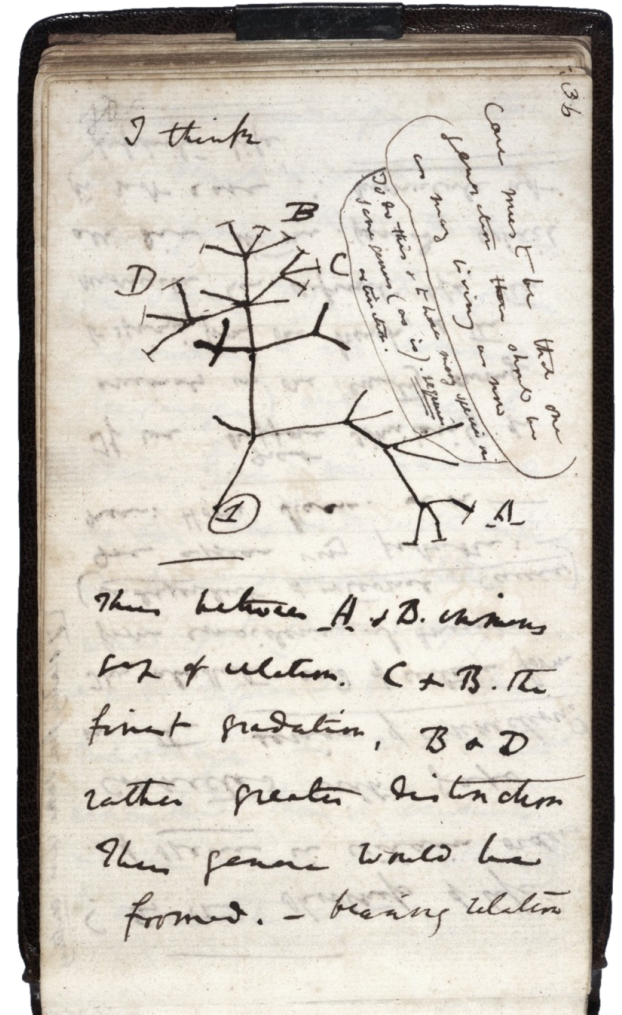
- This light-colored moth became darker after the Industrial Revolution
- This mutation allowed dark peppered moths to blend into their sooty surroundings because of all the pollutants



**This Slide Has Been  
Removed**

# What is Evolution?

- Species are not replaced
- \_\_\_\_\_
- Can be caused by the environment (i.e., climate change) and/or by mutations (changes in their DNA)



*A page from Darwin's notebook*

# Evidence for Evolution

Evolution has been proven using modern day technology.

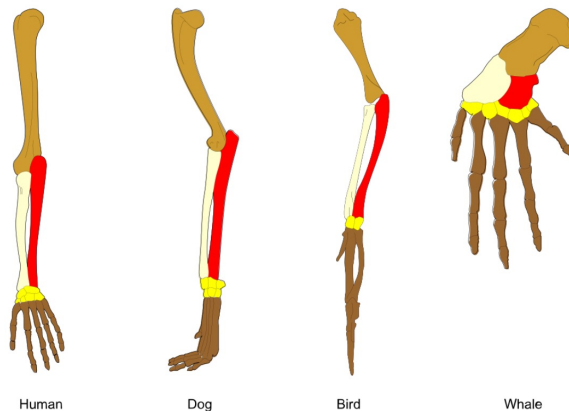
- Biochemistry
- Genetics
- Physiology
- Behavior
- Ecology
- Molecular biology



# Evidence for Evolution

## Comparing body structures

- \_\_\_\_\_
- More similar in closely related species



The bones of these animals have the same basic structure but over time, have been changed to meet their specific needs (flying, swimming, etc.)

**This Slide Has Been  
Removed**

# Evidence for Evolution

## The Fossil Record

- Evidence of remains of extinct organisms

- \_\_\_\_\_



# Evidence for Evolution

## The Fossil Record

- Fossil age can be determined from rock layers as rocks are laid down in the order in which they form
- \_\_\_\_\_



# Evidence for Evolution

## The Fossil Record

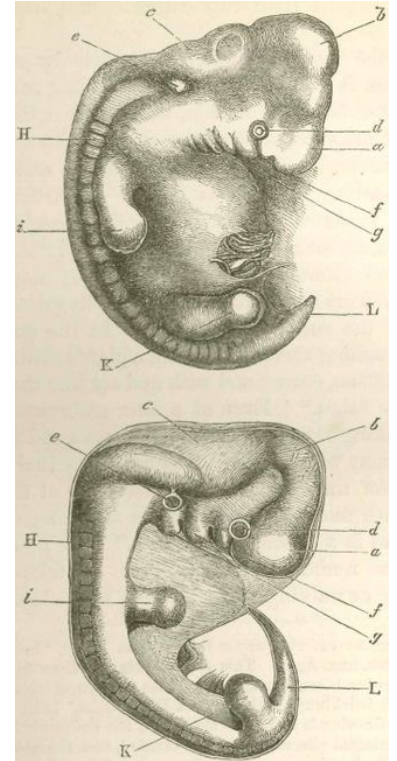
- Earth: 4.5 billion years old
- Succession example:
  - Oldest fossils (tiny bacteria): ~3.8 billion years
  - Oldest animals (sponge-like): ~700 million years
  - Oldest skeletons: ~540 million years
  - First vertebrates: ~400 million years ago
  - First mammals: <200 million years ago
  - First hominis (primate line including us): 6-7 million years ago



# Evidence for Evolution

## Embryological Development

- \_\_\_\_\_
- More similar development for closely related species
- Indicates common ancestor

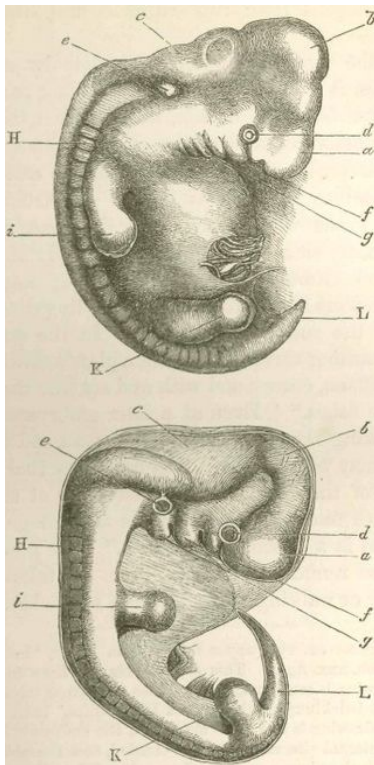


*Top:* Human embryo

*Bottom:* Dog embryo

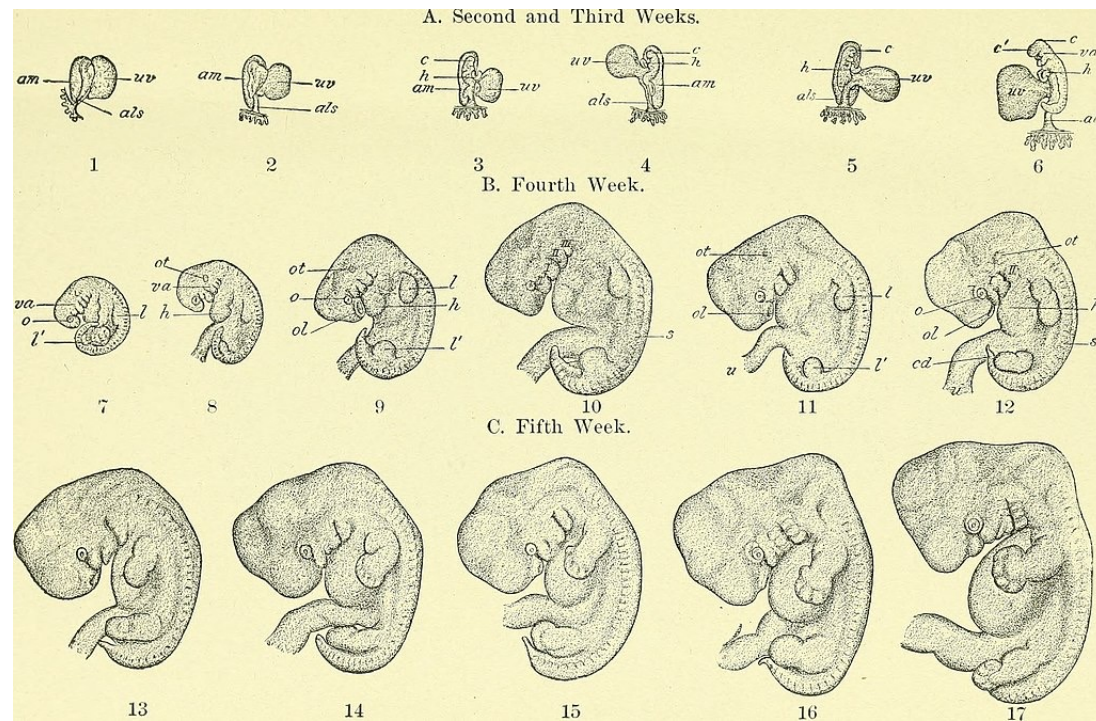
**This Slide Has Been  
Removed**

# Evidence for Evolution



*Top:* Human embryo

*Bottom:* Dog embryo



Human embryologic development

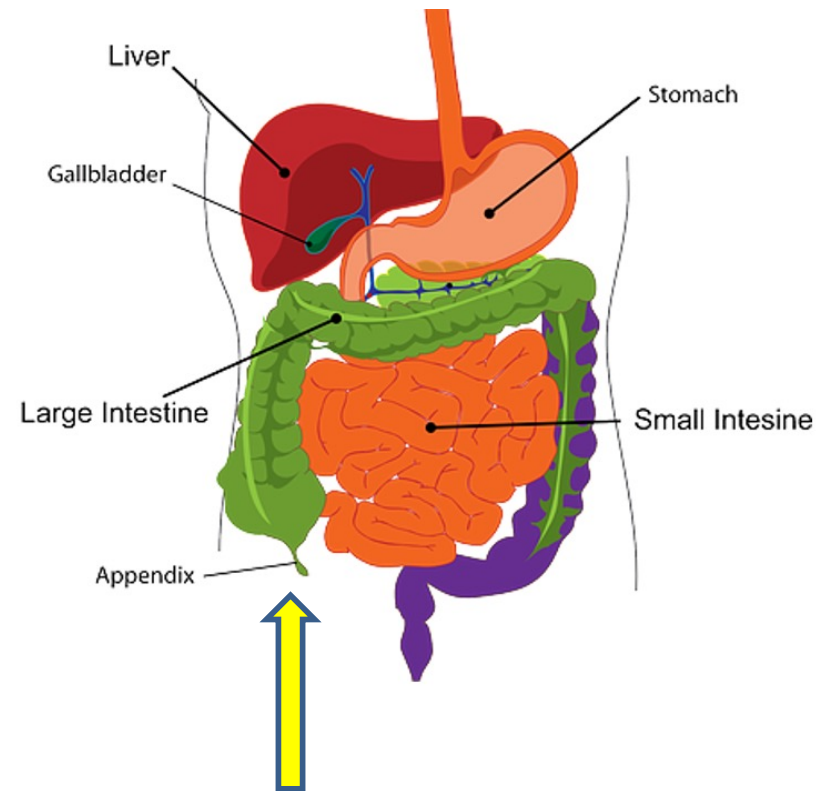
Mouse embryo at 12.5 days



# Evidence for Evolution

## Vestigial traits

- \_\_\_\_\_



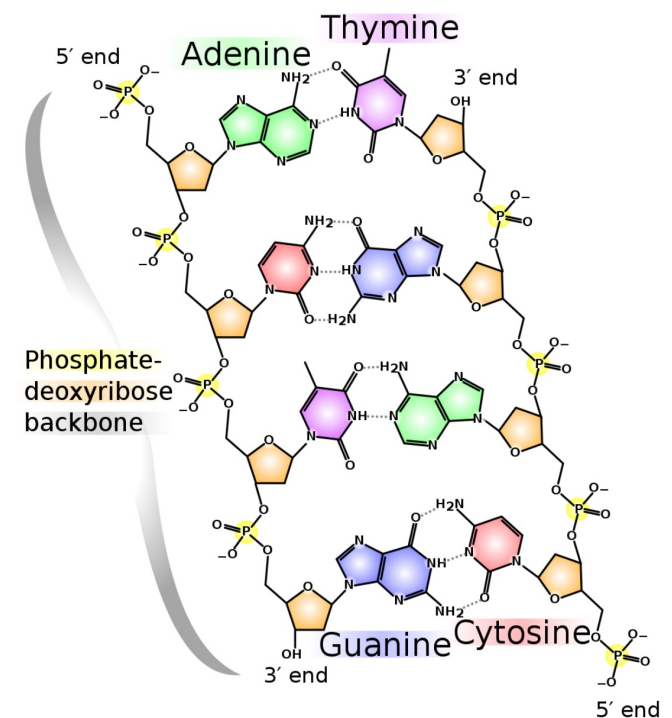
- Example: human tailbone, appendix

**This Slide Has Been  
Removed**

# Evidence for Evolution

## Molecular Biology

- DNA shows a relationship of all living organisms to common ancestors



- \_\_\_\_\_
- All proteins are made of the same basic parts