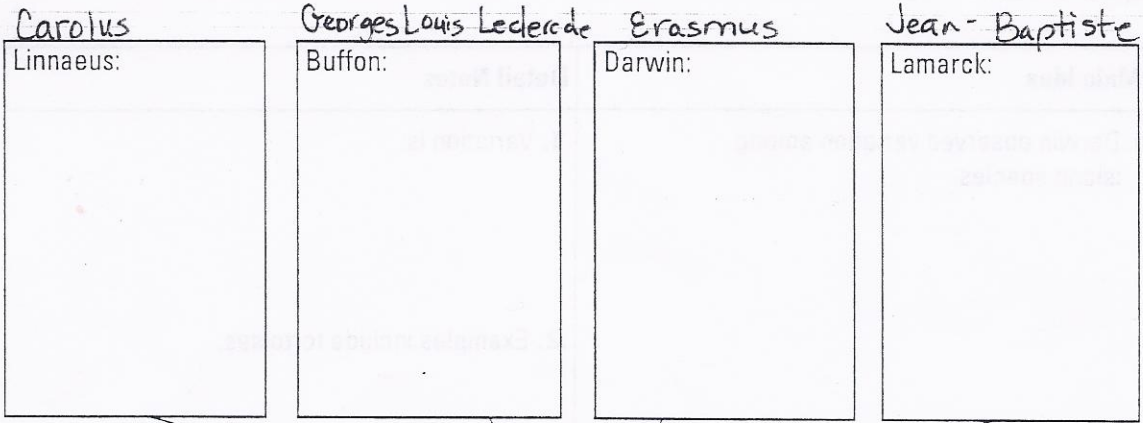


SECTION 10.1

EARLY IDEAS ABOUT EVOLUTION

Power Notes

CHAPTER 10 Principles of Evolution



Francesco Redi

Alfred Wallace

John Needham

Charles Darwin

Theories of Biological Change

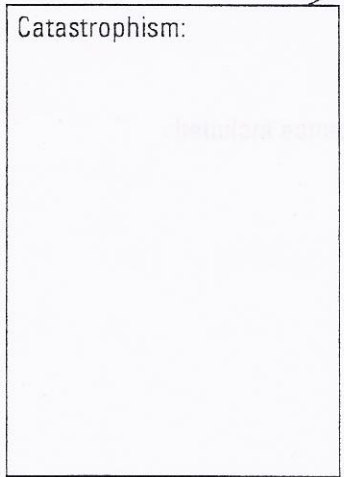
Early Ideas About Evolution

Thomas Malthus

Theories of Geologic Change

Lazzaro Spallanzani

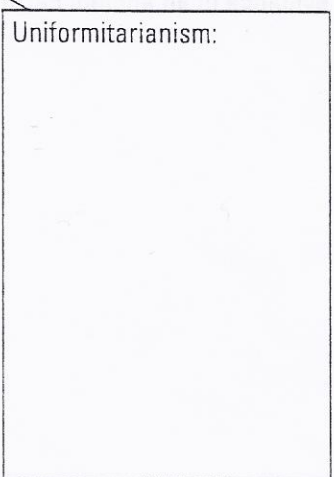
Louis Pasteur



Georges Cuvier



James Hutton



Charles Lyell

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Name

Period

Date

SECTION  
**10.2**

DARWIN'S OBSERVATIONS  
**Power Notes**

CHAPTER 10  
Principles of Evolution

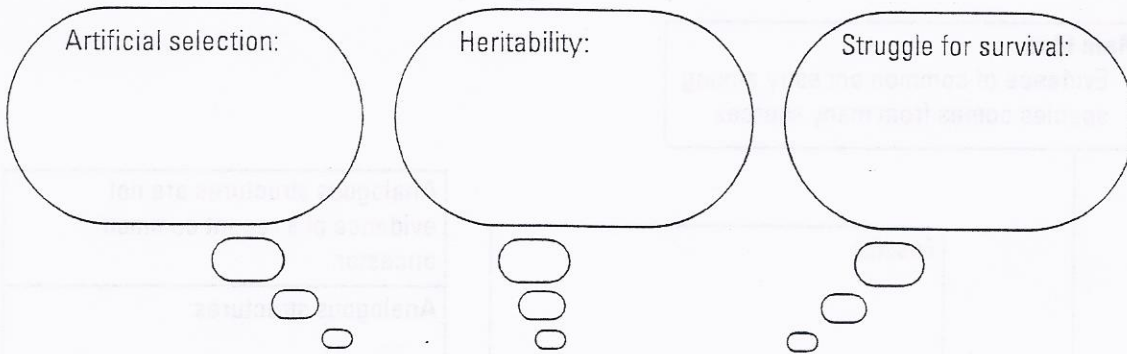
Main Idea	Detail Notes
I. Darwin observed variation among island species.	<p><b>1.</b> Variation is:</p> <p><b>2.</b> Examples include tortoises:</p> <p><b>3.</b> and finches:</p>
II. Darwin realized species could adapt to their environment.	<p><b>1.</b> An adaptation is:</p>
III. Darwin observed fossil and geologic evidence of an ancient Earth.	<p><b>1.</b> Fossil evidence included:</p> <p><b>2.</b> Geologic evidence included:</p>

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SECTION  
**10.3**

THEORY OF NATURAL SELECTION  
**Power Notes**



Key insights led to Darwin's theory.

**Natural Selection Explains How Evolution Can Occur.**

Natural selection is:

The 4 main principles of natural selection are:

Variation:

Overproduction:

Adaptation:

Descent with modification:

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SECTION  
**10.4**

EVIDENCE OF EVOLUTION  
**Power Notes**

**Main Idea**

Evidence of common ancestry among species comes from many sources.

Fossils:

Geography:

Embryology:

Anatomy:

Analogous structures are not evidence of a recent common ancestor.

Analogous structures:

Homologous structures:

Vestigial structures:

Name

Period

Date

SECTION  
**10.5**

EVOLUTIONARY BIOLOGY TODAY  
**Power Notes**

DNA sequence analysis:

Pseudogenes:

**New technology is furthering our understanding of evolution.**

Homeobox genes:

Protein comparisons:

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Name

Period

Date

SECTION  
**10.5**

EVOLUTIONARY BIOLOGY TODAY  
**Power Notes**

DNA sequence analysis:

Pseudogenes:

**New technology is furthering our understanding of evolution.**

Homeobox genes:

Protein comparisons:

