

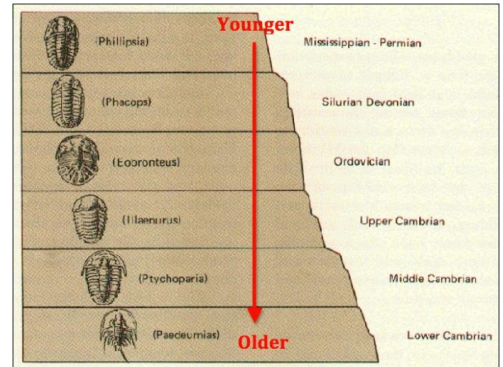
# Study Guide: Unit 8 Test

## HONORS BIOLOGY: EVOLUTION (Chapter 12)

**Directions:** The list below identifies topics, terms, and concepts that will be addressed on your Unit 8 Test. This list should help you focus your review. This is not a homework assignment you will turn into me.

### Fossils

- Types
  - **Permineralization**
  - Natural Casts
  - Trace Fossils
  - Amber-preserved fossils
  - Preserved remains
- Most fossils form in **sedimentary rock**



### Dating techniques

- **Relative Dating**
- **Radiometric dating**
  - Different isotopes used
  - **Half-life**

### Geologic Time Scale

- Organizes by major changes or events
  - **Eras** (Separated by mass extinctions)
    - Cenozoic
    - Mesozoic
    - Paleozoic
    - Precambrian
  - **Periods**
- **Index fossils**

### Origin of life

- Earth 4.6 billion years old
- Organic Molecule Hypotheses
  - **Miller-Urey experiment**
  - Meteorite hypothesis

### Origin cellular life

- **Single celled organisms**
  - Photosynthesis changed atmosphere
  - Asexual reproduction
- **Eukaryotic cells**
  - **Endosymbiotic Theory**
    - Mitochondria
    - Chloroplasts
    - (DNA, ribosomes)
  - Sexual reproduction
    - Increased genetic variation
  - Multicellular life

### Primate evolution Evidence

- Bipedal
- Australopithecus afarensis
- Homo Neanderthalensis
- Homo sapiens- modern man ("man-wise")

Eon	Era	Period	Time (millions of years ago)	
Phanerozoic	Cenozoic	Quaternary	1.8–present	
		Neogene	23–1.8	
		Paleogene	65.5–23	
	Mesozoic	Cretaceous	146–65.5	
		Jurassic	200–146	
		Triassic	251–200	
	Paleozoic	Permian	299–251	
		Carboniferous	359–299	
		Devonian	416–359	
		Silurian	444–416	
		Ordovician	488–444	
		Cambrian	542–488	
	Pre-cambrian Time	Proterozoic		2500–542
		Archean		4000–2500
Hadean			About 4600–4000	

