NAME _____ CLASS _____ DATE _____

History of Living Things Makeup for 4/22/11 absence

Section Review 11.3

The Big Idea!

Our planet and the organisms that inhabit it have changed greatly over time. 11.2–11.3

Concepts

- Scientists theorize that multicellular organisms evolved from colonies of eukaryotic cells.
- Terrestrial organisms evolved about 500 million years ago. Adaptation for life on land included internal transport systems and methods to conserve water.
- The locations of Earth's continents have changed over time. Land movements and climactic changes are major causes of speciation on Earth.
- Mass extinctions resulted in the adaptive radiation of surviving species.

Words

eras periods epochs

PART A

1. Place the following time divisions in order from largest to smallest by writing the numbers 1 (largest) through 3 (smallest) on the lines provided.

_____ **a.** periods _____ **b.** epochs _____ **c.** eras

2. Place the following geologic eras in order from earliest to most recent by writing the numbers 1 (earliest) through 4 (most recent) on the lines provided.

_____ **a.** Cenozoic _____ **b.** Mesozoic _____ **c.** Paleozoic _____ **d.** Precambrian

3. What kind of changes mark the beginning and ending of divisions in geologic time?

_____

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4. What happened at the beginning of the Cambrian period?

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_____

5. How would Darwin interpret this based on his theory of evolution? Explain your answer.

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NAME _____ CLASS _____ DATE _____

PART B *Sequence the steps involved in the evolution of multicellular organisms. Place the letters a (earliest) through f (latest) on the lines provided.*

_____ **1.** Colonies of eukaryotic cells become organized, with some cells performing specialized functions.

_____ **2.** Groups of specialized cells form tissues.

_____ **3.** A diverse variety of eukaryotic cells evolve, each with specialized structures and functions

_____ **4.** Multicellular organisms with specialized, interdependent cells evolve.

_____ **5.** Some cells lose the ability to move.

_____ **6.** Eukaryotic cells group together to form colonies.

PART C

1. What was the biggest obstacle preventing aquatic organisms from invading land?

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_____

2. List two ways that plants, the earliest land organisms, overcame this obstacle?

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3. How can the movement of continents be explained by plate tectonics?

_____

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4. Why are many unique life forms found in Australia?

_____

_____

5. Describe one theory explaining the elimination of the dinosaurs during the Cretaceous mass extinction.

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