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**“A Walk Through Geologic Time” Scavenger Hunt**

**Essential Question:**

How does the emergence of living organisms relate to the geologic time scale?

What major events in geologic time influenced the evolution of organisms?

**Introduction:** So how do scientists REALLY know what life was like earlier in Earth’s history?! What really killed the dinosaurs? Ever wonder if the ‘Theory of Evolution’ really holds water? Then this Internet Scavenger Hunt should hold some answers for you!

**The Questions:**

For questions # 1 - 6, go to this link and complete the entire ‘tutorial’ on the ‘Geologic Time Scale’ and then answer the questions below in the space provided. <http://www.ucmp.berkeley.edu/education/explorations/tours/geotime/gtpage1.html>

(1) Scientific evidence suggests that the Earth is \_\_\_\_\_\_\_\_\_\_\_\_ years old. *(“Right There ?”)*

(2) The earliest life forms on Earth first appeared HOW long ago, according to fossil evidence?

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. *(“Right There ?”)*

(3) Evidence for past events in Earth's ancient history are provided by

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. *(“Author & Me ?”)*

(4) What does ‘The Law of Superposition’ allow us to determine about rocks?

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. *(“On My Own ?”)*

(5) What does ‘Radiometric Dating’ allows us to determine?

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(6) The divisions of time in the Geologic Time Scale represent major changes in:

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. *(“Author & Me ?”)*

(7) Go to the following 2 links and look over the Geologic Time Scale provided here. ***A)*** What is the name for the ‘**Shortest**’ unit on the Geologic Time Scale shown? ***B)*** Which Era of Geologic Time has the **most** of these units listed? ***C)*** WHY would you suppose there are more of these subunits listed in this Era? *(“Visual ?”)*

1) <http://www.ucmp.berkeley.edu/education/explorations/tours/geotime/guide/geologictimescale.html>

2) <http://www.enchantedlearning.com/subjects/Geologictime.html>

***A)***

***B)***

***C)***

(8) Go to the following link and read about the ‘***5 Worst Mass Extinctions in Earth’s History’***. Of the 5 ‘Mass Extinctions’ discussed, which one was the absolute ‘**Worst**’ in loss of life forms on our Planet? Give percentages/amounts & kinds of affected life forms. *(“Putting It Together ?”)* <http://www.space.com/scienceastronomy/planetearth/extinction_sidebar_000907.html>

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**Putting It All Together:** Make a Graphic Organizer that lists the 4 major Eras of the Geologic Time Scale. For EACH Era, 1) list 2 new life forms that appeared (biosphere); 2) list 1 major ‘Geologic’ event that occurred (geosphere); 3) list 1 major change in that occurred in either the Oceans (hydrosphere) or Atmosphere (atmosphere). See sample chart below! ☺

**Geologic ERA**  2 new life forms 1 major geologic event 1 major change to water/air

**Precambrian ‘Time’**

**Paleozoic Era**

**Mesozoic Era**

**Cenozoic Era**

Bottom of Form