**Unit 4A: Relative Dating and Geological Time**

**Part A**: Skills you should know

**By the end of this unit, you should be able to:**

**-**put the major time eras/periods of the earth’s history in order

-describe how each era/period is significant

-explain how relative dating is different from absolute dating

-explain how different principles of Law of Superposition, Principles of Original Horizontality & Cross-Cutting Relationships tell you which layers came first

-explain how inclusion and faults form, and their relative age to the rock layers surrounding it.

**Part B: Geological Time: Use the picture to the left to help you answer the following questions.**

1. *Order the below terms from shortest to longest amount of time by numbering them from 1 to 5. 1 is the shortest span of time and 5 is the longest span of time.*

**Age Period Era Eon Epoch**

|  |  |  |  |
| --- | --- | --- | --- |
| 2. Name the largest time span of the earth’s history  | 3.How long ago did Precambrian start?  | 4. Time span when bacteria begin to form | 5. Time span when hard-shelled organisms begin to form |
| 6. known as **period** of fish | 7. what organisms were most common during Paleozoic era? | 8.what organisms were most common during Mesozoic era? | 9. which era is known as the era of mammals? 10. What time period do we live in?  |

1. *For each of the below periods illustrate what major species emerged and the era the period is included in. The first one is done for you.*

|  |  |  |
| --- | --- | --- |
| Era | Period | New Major Species |
| Mesozoic | Jurassic | C:\Users\jain\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\TVJ5AQ8X\MP900446581[1].jpg |
|  | Quaternary |  |
|  | Triassic  |  |
|  | Cambrian |  |
|  | Denovian |  |

**Part C: Relative Dating Vocabulary Words**

*Define the following vocabulary words. Then, illustrate an example of each of the words.*

|  |  |  |
| --- | --- | --- |
| **Relative** DatingDefinitions: Illustration:  | **Absolute Dating**Definitions: Illustration:  | **Law of Superposition,** Definitions: Illustration:  |
| **Principle of Cross-Cutting**Definitions: Illustration:  | **Principles of Original Horizontality**Definitions: Illustration:  | **unconformity**Definitions: Illustration:  |
| **Dike**Definitions: Illustration:  | **Fault**Definitions: Illustration:  | **Inclusion**Definitions: Illustration:  |

**Part D: Applying concepts**



For the above picture order the layers from youngest to oldest

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For the above picture order the layers from youngest to oldest

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