Geology 12 Names: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Design your own Palaeo Crime Scene**

**Big Idea**: Incomplete geological fossil evidence can be used to recreate the past.



**Task**: You are to design your own Palaeo Crime Scene!

**Advice**: Model your project after the *Cretaceous*

 *Crime Scene* activity we experienced in class:

* Choose a **victim** and a **murderer**
* Determine the **location** of the crime (time and place)
	+ Consider the geologic time period, as well as how many years ago.
	+ Consider the country and what the continent looked like in the past.
* Decide on the **crime**
	+ Include a diagram of the crime scene (the fossil site)
* Consider what **evidence** might be preserved
	+ **Fossils**, plant and animals, bones, shells, teeth,
		- articulated *vs* disarticulated *vs* isolated fossils
		- Any damage – bite marks, claw marks, wear?
	+ **Trace fossils**, tracks, patterns and trackways
	+ **Rock** typesand **sedimentary structures** - indicating types of environment
* Possible **Suspects**
	+ Motives! – why did they do it?
	+ Their “weapons” – how could they have committed the crime?
	+ When and where they lived
* **An answer key**
	+ Explain your answer – the reconstructed story of the crime!
	+ Other…

**Your PalaeoCrime can occur in any time period in the Geologic Time Scale, except the Precambrian and Holocene.**

**Product**: You can choose any display option: power point or google-slides, case file, film, documentary, kit, etc…

*Ok by teacher:\_\_\_\_\_\_\_\_\_\_\_\_*

If you are having trouble creating your own crime scenario, you could instead choose from one of the following famous real-world palaeontology sites:

* BC’s Burgess Shale Fossils
* North American Western Interior Seaway
* Nova Scotia Joggins Cliff (*Hylonomus*)
* Alberta *Centrosaurus* bonebeds
* Sue the Tyrannosaurus
* Lyme Regis, UK - Mary Anning fossils
* Australian Ediacara Fossils
* Giant insects of the Carboniferous
* *Dunkeosteous* of Devonian
* *Dimetrodon* of the Permian
* Sea Scorpions of the Silurian
* Ghost Ranch, Triassic (*Coelophysis*)
* Solnhofen, Germany (*Archaeopteryx*)
* China Lagerstagten (Feathered Dinosaurs)
* BC’s huge *Shonisaurus*
* Flaming Cliffs (*Velociraptor/ Protoceratops*)
* La Brea Tar Pit, LA, USA
* Terror Birds of the Paleocene/Eocene
* Ice Age (Mammoth, *Smilodon*)
* Como Bluff, Wyoming, Jurassic
* Peace River, BC Dinosaur Footprints
* Neanderthal Caves, France
* Valley of the Moon, Argentina (*Eoraptor*)
* Olduvai Gorge, Tanzania
* Dinosaurs of Madagascar, Africa
* *Basilisaurus* of Egypt
* Mammoths of Floriensis Island
* South American Mammals of the Pleistocene
* Moa of New Zealand
* Dinosaur Eggs of the Gobi Desert
* Baby *Maiasaura* Dinosaurs, USA

**ASSESSMENT:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Criteria** | **10** | **9-8** | **7-6** | **5-0** |
| *Knowledge & Understanding* | Applying deeply the knowledge learned in class, and consistently choosing specific, detailed, and appropriate information.  | Applying the knowledge learned in class, and mostly choosing specific, detailed, and appropriate information. | Sometimes applying the knowledge learned in class, and choosing somewhat appropriate information. | Rarely applying the knowledge learned in class, and choosing unrelated information. |
| *Critical Thinking Skills* | Designing a logical, intricate, compelling crime story, supported with detailed evidence! | Designing a logical crime story, supported with detailed evidence! | Designing a crime story, supported with some evidence. | Missing the crime story, without any evidence. |