***the*HoustonMuseum*ofnaturalscience***

**The Morian Hall of Paleontology**

**(first floor)**

**Precambrian**

Look at the four stromatolites on display. Notice the absence of red or rust. Now look at the banded iron and notice the large amount of red or rust. Keep in mind that most rocks contain iron, but the iron in the first four specimens didn’t “rust” like the iron in the fifth specimen. What can we now assume was in the atmosphere that allowed the iron to rust and was necessary for more complex life forms to live on Earth?

**Aquarium**

Watch the scenes that flow by on the aquarium screens. List four of the different adaptations you see on any of the sea creatures that float by. How do these adaptations help them to survive?

1.

2.

3.

4.

**Trilobite**

Look at the second window of trilobites on the Cambrian wall. Notice that this shows a parent and offspring. Compare and contrast the offspring with the parent.

|  |  |  |
| --- | --- | --- |
|  | Parent | Offspring |
| Compare |  |  |
| Contrast |  |  |

**Boomerang-headed Amphibian**

Look at the model of the Boomerang-headed amphibian. How do his feet help him in the water? If he is meant to stay close to the bottom, how does his head shape help him survive?

**Jurassic Motherhood**

Examine the *ichthyosaurs* on display paying special attention to her stomach. Can you find all eight of her pups? Note the large head size. Why do you think these babies would need a large head at the start of their lives? (\*Hint: think food)

***Gyrodus Circularis***

Look at the round wide sharp-finned *gyrodus circularis*. Notice he has harp pointy teeth. This fish thrived on coral. How do his body, his teeth, and his fins help him to thrive on a coral diet? (\*Hint: he is thin and flat so he can get between coral structures).

***Stegosarus* vs. *Allosaurus***

Compare and contrast the *stegosarus* and the *allosaurus*. Which one do you think could run faster? Based on your observation of the bone structure which one would be more adapt to muddy terrain? Which animal was a carnivore and which was an herbivore?

|  |  |  |
| --- | --- | --- |
| Compare/Contrast | *Stegosarus* | *Allosaurus* |
| Run Faster? Why? |  |  |
| Better on muddy Terrain? How do you know? |  |  |
| Carnivore/Herbivore. Evidence? |  |  |

**The Late Cretaceous**

Complete the food chain using the options below:

Sun *triceratops* magnolia

decay/nutrients *tyrannosaurus rex*

**“Stan” vs. “Lane”**

Based on their physical appearance, which one is hunting the other? Explain your answer.

**Quetzalcoatlus**

Does this animal give live birth like “Jurassic Mom”?

Which baby (Jurassic Mom or Quetzalcoatlus) do you think would be most dependant on mom after birth?

**Fight or Flight**

Compare the two scenes on display. One includes a *t.-rex* and a *denversaurus* and the other includes a *t.-rex* and a set of three *quetzalcoatlus*. Which scene shows a “fight” to survive and which scene shows a “flight” to survive?

|  |  |
| --- | --- |
| Action | Scene |
| Fight |  |
| Flight |  |

**The End of the Ice Age**

By the end of the Ice Age the mammoth, mastodons and giant slots like “slothzilla” became extinct. List two reasons why you think this happened.

1.

2.