



Find the answer



Science Shack



Observe

Upper

Restless Planet

‘On Your Own’ at the Virginia Aquarium

Malaysian Peat Swamp – Carboniferous Period (315 MYA)

Peat swamps form over hundreds of years as partially decayed plant material builds up. They are found all over the world. The closest peat swamp to us is the Great Dismal Swamp.



- What special adaptations allow the Snakehead Fish to move over land?



- Observe the tomistomas for several minutes – describe their activity level.

- Based on their activity, what can you deduce about their method for finding food?

Science Shack Alpha



- Fill In: PEAT + _____ + _____ = COAL
- Look at both fossil displays in the room and match the picture to the name of its fossil:



Ammonite

Seed Fern



Brittlestar



Trilobite

- What evidence found in Virginia tells us it was once a coastal desert?

Did you know? During the Silurian period Virginia was found below the Equator.

Coastal Desert – Silurian Period (420 MYA)



- Which other animal in the exhibits has venom as strong as the fat-tailed scorpion? _____

Did you know? The Egyptian ruler, Cleopatra, was thought to be killed by this animal.



- Why are the seahorses found attached to the seagrass in their habitat?

Red Sea – Triassic Period (200 MYA)

The Red Sea is not actually red. It may be named for occasional red bacteria blooms, or from the reddish colored mountains nearby. About 10% of animals found here are not found anywhere else.

Spend some time viewing the animals in the Red Sea Tunnel and answer the questions based on your observations.



- Why are the large stingrays called Eagle Rays? _____
- What are some key differences between the rays and other fish in the aquarium?

Science Shack Zulu



- The process of plates pulling apart is called rifting. Use the Ocean Origins interactive exhibit and describe what happens after the plates begin pulling apart. _____

- Most fossils are the remains of _____ and _____.
- Look at the “forming fossils” display and match each term to its description:

Resin	Fossilized burrows and footprints
Carbonization	Fossilized teeth, shells & bones
Petrification	Insects and smaller animals in hardened tree sap
Ichnofossils	Plants and soft bodied animals compressed in mud
- Throughout history, we have seen five mass extinctions. Review each one and find out what are three main causes for these extinctions?
_____, _____, _____
- Mt. Rogers is the tallest mountain in Virginia but it is not a volcano – what evidence do we have that it is made out of volcanic material? _____

Flores Island – Precambrian Period (760 MYA)



- The Komodo dragon is the largest lizard in the world, weighing upwards of 365 pounds. Describe the characteristics that make it a reptile: _____



- The main prey of komodos is the Sunda Deer - how do komodos kill their live prey in the wild?



Find the answer



Science Shack



Observe

Upper

Restless Planet – ANSWER KEY

“On Your Own” at the Virginia Aquarium

Malaysian Peat Swamp – Carboniferous Period (315 MYA)

Peat swamps form over hundreds of years as partially decayed plant material builds up. They are found all over the world. The closest peat swamp to us is the Great Dismal Swamp.



- What special adaptations allow the Snakehead Fish to move over land? Ability to breathe out of water, “walkable” pelvic fins

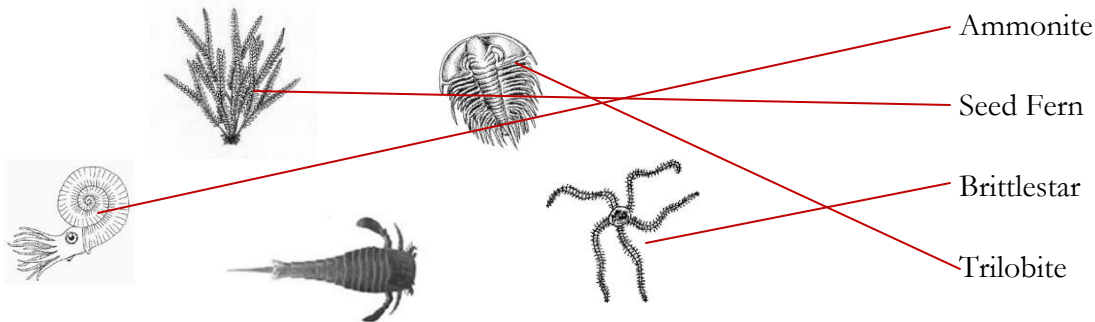


- Observe the tomistomas for several minutes – describe their activity level.
Do not see them moving very often – sit still
 - Based on their activity, what can you deduce about their method for finding food?
They are ambush predators

Science Shack Alpha



- Fill In: PEAT + Pressure + Heat = COAL
- Look at both fossil displays in the room and match the picture to the name of its fossil:



- What evidence found in Virginia tells us it was once a coastal desert? Salt deposits from the edge of an ancient sea

Did you know? During the Silurian period Virginia was found below the Equator.

Coastal Desert – Silurian Period (420 MYA)



- Which other animal in the exhibits has venom as strong as the fat-tailed scorpion? Egyptian Cobra

Did you know? The Egyptian ruler, Cleopatra, was thought to be killed by this animal, also called an asp.



- Why are the seahorses found attached to the seagrass in their habitat?
Not good swimmers; use grass to anchor themselves in their habitat; used for camouflage

Red Sea – Triassic Period (200 MYA)

The Red Sea is not actually red. It may be named for occasional red bacteria blooms, or from the reddish colored mountains nearby. About 10% of animals found here are not found anywhere else.

Spend some time viewing the animals in the Red Sea Tunnel and answer the questions based on your observations.



- Why are the large stingrays called Eagle Rays? **Look like eagles flying from below**
- What are some key differences between the rays and other fish in the aquarium? **Rays are part of the shark family (have cartilage); have gill slits, not gill coverings; different shape**

Science Shack Zulu



- The process of plates pulling apart is called rifting. Use the Ocean Origins interactive exhibit and describe what happens after the plates begin pulling apart. **Land stretches, eventually fills in with water, eventually becomes an ocean if it stretches apart enough**
- Most fossils are the remains of **plants** and **animals**.
- Look at the “forming fossils” display and match each term to its description:

Resin		Fossilized burrows and footprints
Carbonization		Fossilized teeth, shells & bones
Petrification		Insects and smaller animals in hardened tree sap
Ichnofossils		Plants and soft bodied animals compressed in mud
- Throughout history, we have seen five mass extinctions. Review each one and find out what are three main causes for these extinctions?
Volcanic eruption, **Tectonic shifting**, **Catastrophic event (i.e. asteroid)**
- Mt. Rogers is the tallest mountain in Virginia but it is not a volcano – what evidence do we have that it is made out of volcanic material? **Made of a rock called basalt formed by volcanoes**

Flores Island – Precambrian Period (760 MYA)



- The Komodo dragon is the largest lizard in the world, weighing upwards of 365 pounds. Describe the characteristics that make it a reptile: **Scaly, dry skin; lays eggs; cold-blooded; sheds/molts its skin; has lungs**



- The main prey of komodos is the Sunda Deer - how do komodos kill their live prey in the wild?
Bite it, wait for infection to set in (their saliva is filled with bacteria which will eventually kill the animal), track it down when it is weak and eat it