

Name: \_\_\_\_\_

# MOR DISCOVERY

Updated 5/1/13

## *Dinosaurs under the Big Sky* Scavenger Hunt Level 3

1. List the three most important scientific theories of paleontology.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

2. Dinosaurs lived \_\_\_\_\_ to \_\_\_\_\_ million years ago.

3. Dinosaurs are found in Montana from the Jurassic and Cretaceous Periods of the \_\_\_\_\_ Era.

4. If you find a fossil on federal land, who owns it? \_\_\_\_\_

5. Paleontologists can hypothesize how dinosaurs lived and died by how fossils are arranged in rocks. Explain how scientists think the juvenile sauropods on display died based on their arrangement.

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6. What evidence do paleontologists have that suggests dinosaurs did not drag their tails?

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7. The skeleton of a \_\_\_\_\_ is on display with \_\_\_\_\_ (number) *Deinonychus* teeth surrounding it. What does this tell paleontologists about how *Deinonychus* hunted and why?

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8. How did the Museum's paleontologists determine what color to make the life-like dinosaurs?

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9. Is the plesiosaur a dinosaur? Why or why not? \_\_\_\_\_  
\_\_\_\_\_

10. Some dinosaurs like \_\_\_\_\_ sat on their eggs to incubate them.

11. What small predatory dinosaur is often found right next to *Maiasaura* nests suggesting it fed on *Maiasaura* nestlings? \_\_\_\_\_

12. List two ways the *Triceratops* changes as it grows.

1. \_\_\_\_\_
2. \_\_\_\_\_

13. On the *Edmontosaurus* tail, the small bumps are impressions of the dinosaur's \_\_\_\_\_.

14. What physical evidence did paleontologist Jack Horner use to hypothesize that *T-rex* adults were scavengers? \_\_\_\_\_  
\_\_\_\_\_

15. Mary Schweitzer discovered the first \_\_\_\_\_ tissue blood vessels and cells in a *T-rex* known as "*B-rex*" or \_\_\_\_\_.

16. Based on the medullary bone found, scientists determined *B-rex* was a: (Circle one)

MALE      or      FEMALE

17. Name two other types of animals (that are not dinosaurs) that were found to live at the same time as dinosaurs.

1. \_\_\_\_\_
2. \_\_\_\_\_

18. Write two facts you learned about dinosaurs today.

1. \_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_  
\_\_\_\_\_

# MOR DISCOVERY

Updated 5/1/13

## *Dinosaurs under the Big Sky* Scavenger Hunt Level 3

- List the three most important scientific theories of paleontology.
  - Theory of Extinction* \_\_\_\_\_
  - Theory of Darwinian Evolution* \_\_\_\_\_
  - Theory of Radiometric Dating* \_\_\_\_\_
- Dinosaurs lived 230 to 65 million years ago.
- Dinosaurs are found in Montana from the Jurassic and Cretaceous Periods of the Mesozoic Era.
- If you find a fossil on federal land, who owns it? USA, Federal Government, or the people of the USA
- Paleontologists can hypothesize how dinosaurs lived and died by how fossils are arranged in rocks. Explain how scientists think the juvenile sauropods on display died based on their arrangement. *The young Diplodocus got their feet stuck in the mud and could not escape. (Allosaurus most likely fed on the young animals while they were dying or after their death.)* \_\_\_\_\_
- What evidence do paleontologists have that suggests dinosaurs did not drag their tails? *Tail vertebrae of Deinonychus possess long extensions, ossified tendons that aided in creating a stiff tail.*
- The skeleton of a Tenontosaurus is on display with 11 (number) *Deinonychus* teeth surrounding it. What does this tell paleontologists about how *Deinonychus* hunted and why? *More than one Deinonychus fed on Tenontosaurus. 11 teeth are too many for one Deinonychus to lose while feeding. Paleontologists then hypothesize that Deinonychus hunted in packs.*
- How did the Museum's paleontologists determine what color to make the life-like dinosaurs? *Paleontologists based colors on modern reptiles and birds, because they are related to dinosaurs.*

9. Is the plesiosaur a dinosaur? *Why or why not?* No. Dinosaurs lived on land and their legs were directly under their bodies. Plesiosaurs were marine reptiles or swimming reptiles, lived in water and had flippers or paddles rather than legs.

10. Some dinosaurs like Troodon sat on their eggs to incubate them.

11. What small predatory dinosaur is often found right next to *Maiasaura* nests suggesting it fed on *Maiasaura* nestlings? Troodon

12. List two ways the *Triceratops* changes as it grows.

*1. Young horns curved back. Older horns pointed forward. 2. Young skull has larger eyes. 3. Young skull has triangle shaped bones on top edge of frill. 4. Nasal bones are not fused on younger skulls. 5. The face grew longer as it got older. 6. Blood vessel grooves in the skull are more prominent in the older Triceratops.*

13. On the *Edmontosaurus* tail, the small bumps are impressions of the dinosaur's skin.

14. What physical evidence did paleontologist Jack Horner use to hypothesize that *T-rex* adults were scavengers? *Changes in T-rex teeth. Juvenile T-rex had small, sharp, blade-shaped teeth to cut flesh. Adult T-rex had fewer teeth and developed large, blunt, round teeth for crushing bone.*

15. Mary Schweitzer discovered the first soft tissue blood vessels and cells in a *T-rex* known as "*B-rex*" or Catherine.

16. Based on the medullary bone found, scientists determined *B-rex* was a: (Circle one)

MALE or FEMALE

17. Name two other types of animals (that are not dinosaurs) that were found to live at the same time as dinosaurs.

Fossils on display at MOR include: turtles; lizards; crocodiles; *Champsosaurus*, *Borealosuchus*, *Aspideretoides*, *Emarginochelys*, *Trionychoidea*; fish including: gar, bowfin, ray, paratarpon, sturgeon; mollusks including: clam, snails, gigantoclam; mammals including *Meniscoessus sp.*, *Didelphodon sp.*

18. Write two facts you learned about dinosaurs today.

- Answers will vary.
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