

Competitors have 50 minutes to complete this test. There are 14 stations. Competitors will be at each station for only 3 minutes. There will be 8 minutes after all the stations have been visited to answer general questions and review your answers. Questions marked with asterisks will be used as tie breakers. Each question is worth 1 point unless otherwise noted. Half points may be awarded for partially correct answers.

Station 1:



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1. Identify the order of this specimen _____
2. What geologic period(s) is this from? _____
3. What modern animals is this specimen related to? _____
4. The surface of these fossils typically reticulate which results in longitudinal _____ that cross transverse _____. (2 points)
5. Name the feature of later members of this class that this order did not have _____

Station 2:



1. What is the broadest classification of this specimen below phylum? _____
2. What does this specimen's class mean in English? _____
3. Name the two closest living relatives of this specimen _____ (2 points)
4. The part that is represented in this fossil was likely made of what? (Asking for what it was made of on the organism, not the rock) _____
5. When did these organisms become extinct? _____

Station 3:



1. What genus's head does this belong to? _____
2. What is the term for this specimen's snout shape? _____
3. How large were herds of this genus? _____ (2 points)
4. Scientists assume this specimen didn't incubate eggs with body heat, but rather with _____
5. Which American state where all specimens of this genus found? _____

Station 4:



1. What is the genus of this specimen? _____
2. Which state has this as its state fossil? _____
3. Is this deciduous or coniferous? _____
4. If this is a living fossil, where was the first living example found? _____ *
5. Why is this genus significant in explaining the evolution of plants? _____ (2 points)

Station 5:



1. What species is specimen a? _____
2. What species is specimen b? _____
3. According to certain highly controversial theories of human race, which specimen interbred with homo sapiens, passing down genes to modern East Asians? _____ (2 points)*
4. Where was specimen b first found? _____
5. What method of preservation led to the white patch on specimen b? _____

Station 6:



1. What type (trace, cast, etc.) of fossil is this? _____

Name: _____ Total Score: _____/94 Tie breaker points _____/5 5

2. What is the name of the organism that made this fossil? _____
3. What materials was this fossil made of during life? _____ (2 points)
4. The genus that made this fossil is from which class? _____
5. A 12 year old boy famously found one of these specimens where? _____

Station 7:



1. What class is this specimen a part of? _____
2. This genus is characterized by a pointed _____ and well defined _____ scars and pallial lines. (2 points)
3. Is this a living fossil? _____
4. How did this specimen eat? _____
5. What types of sediments are these fossils found in? _____

Station 8:



1. What phylum is this part of? _____
2. What is this genus? _____
3. On some fossils, something is attached to the pasta ridges on this genus. What are the attachments called? _____ (2 points)
4. At what depth ocean did this genus thrive in? (Don't say pasta pot) _____
5. If these specimens reproduce asexually, what is the "baby" called? _____

Station 9:



1. What is the genus? _____
2. What geologic period is this from? _____

3. Why does this specimen roll into balls sometimes? Give at least 2 reasons. _____ (2 points)
4. What's the knob on the top of this fossil that looks like a screwed up stormtrooper helmet called? _____
5. What type of eyes did this specimen have? _____ (2 points)

Station 10:



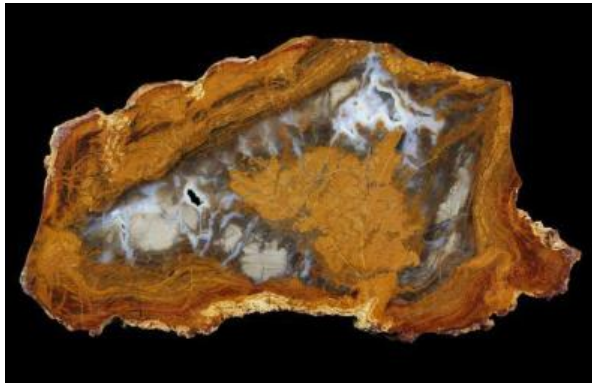
1. What genus are these from? _____
2. In the lakes of which continents did these fish live? _____
3. Name two things these fish ate _____ (2 points)
4. In which lagerstätten can these be found in the stomachs of other fish? _____

Station 11:



1. This genus can grow up to around _____ in length.
2. Which geologic time period did this genus live? _____
3. A member of this genus almost became the state fossil of which state? _____
4. Remains of this genus have been found in which continents?
_____(2 points)
5. What class is this from? _____

Station 12:



1. What type of fossil is this? _____
2. How did it form? _____
3. What genus is this from? _____(2 points)
4. Will this burn if I stick a lighter on it? _____
5. If the white stuff must be calcite, pyrite, or lignite, what is it? _____

Station 13:



1. What is this rock made out of? _____
2. What order are the fossils from? _____
3. What genus is this from? _____
4. What is the name of the wall that separates these coils into chambers? _____ (2 points)
5. Which epoch were these most prominent? _____

Station 14:



1. Where in an animal is this fossil from? _____
2. Why is there a hole in this? _____
3. What genus is this fossil from? _____
4. Due to having this hole in this bone, what could this genus do? _____* (2 points)
5. Was this a carnivore, omnivore, or herbivore? _____

General Questions:

1. What is one difference between brachiopods and bivalve mollusks? _____
2. Give an example of trace fossils. _____
3. What type of rocks are fossils found in? _____
4. What is an index fossil? _____
5. Where was the Western Interior Seaway? _____*
6. Which organism in the official list that is not a scale tree is mined in the midwest as coal? _____
7. Which class of fossils is the most common in the world? _____

Name: _____ Total Score: _____/94 Tie breaker points _____/5

11

8. What type of fossils are found in the Solnhofen Limestone lagerstätten?

9. What is a Steinkern? _____ *

10. What does the term biological apatite mean? _____