

Fossils Test B2

Studies show that the harder to read the font is, the easier it is to remember what you read. This is because it activates your brain more because you need to focus on the words more. This test is meant to be taken without your notes, and it is only accurate if it is taken by the "practical" fossils partner. A "theoretical" partner would score much higher than this. This test can be used to determine final team rosters.

Alright, here's the fossils test. Imagine a very monotonous tone narrating this text. Anyways, I told you that you would need to know what's on your notes very well in order to do well in this test, because you **CANNOT USE YOUR NOTES ON FOSSILS TEST B2**. As if it were not obvious, there is no cheating on this test. You may not use your phone except if you are attempting to record the other person cheating. If you record the other person cheating, you get an extra credit point and the other person loses a point. If you do not provide good enough evidence that your rival has cheated, nothing will happen to them or you. If you see the other person going back to a different station, yell "CHEATER" into the room, and your competitor will get 0 points on the station he was going back to. Same thing if you catch the other person looking at your paper. This test is going to be the trollest test you ever seen, and there's definitely no trick questions. Read each question very carefully, because they will all have different requirements. You may use a magnifying glass, no mechanical pencils, and no erasers besides the one at the end of your pencil. If you don't have a magnifying glass with you right now, you may not get one. All questions are worth 1 point unless otherwise specified. If I can't read your handwriting, it doesn't matter, and I'll just squint some more. Don't panic because panicking is bad. And the most important thing is: **HAVE FUN!!!** You are under no obligation to read the rest of this sheet, as it will give you very little helpful information. Now the rest of this page is just a filler to make sure you get enough practice reading this font. This test will be used to determine the competitors for regionals team. It will also test your general intelligence and trolliness as well. So why am I making a test like this? First of all, it is to make it less fair. If everybody could use notes, then the deciding factor would be how good you are at interpreting my notes, which would be way too fair, and thus wouldn't be useful in deciding who is to go onto the competition team. This test is about testing your ability to get hard tasks done quickly, which is why I put it in such an illegible font. There will be distractions of noise and other things in the competition, and this font makes it as close as possible to actual conditions. Please note that this does not give anybody an advantage as both of you are taking the same test. This test focuses on practical skills because you are both candidates as my practical partner, while I am the theory partner. If you prepared enough, you should be able to do perfectly fine on this test. Good luck. **WARNING:** This test is hard as it is troll. And also "It ain't multiple choice. That's a good test."

Station 1: Theory

Now you may be thinking I lied to you, but a little bit of theory is still needed for any valid competitor.

1. Which supereon are we currently living in?
2. What is biased mutation?
3. What is the Spill-rongis effect? What is the Signor-Lipps effect?
4. Which mass extinction in history killed the highest percentage of species?
5. Who is referred to as the "Father of Paleontology"?
6. What is the difference between an impression and a compression?
7. There are many types of symbiosis. For example, predation is a relationship in which one eats another for food, benefiting one animal and, well, killing the other. What is neutralism, and can you name an example of neutralism?
8. List the taxonomic groups in order from broadest to most specific.
9. What is ichnology?
10. What is the scientific term for fossilized DNA? I swear, if you miss this one, I will...

Station B: Zoom Down



1.



2.



3.



4.



5.



6.



7.



8.



9.



10.

Station B: Zoom Down

This is where the magnifying glass comes in handy, doesn't it? If it's not on the fossil list, say so.

1.

2.

3.

4.

5.

6.

7.

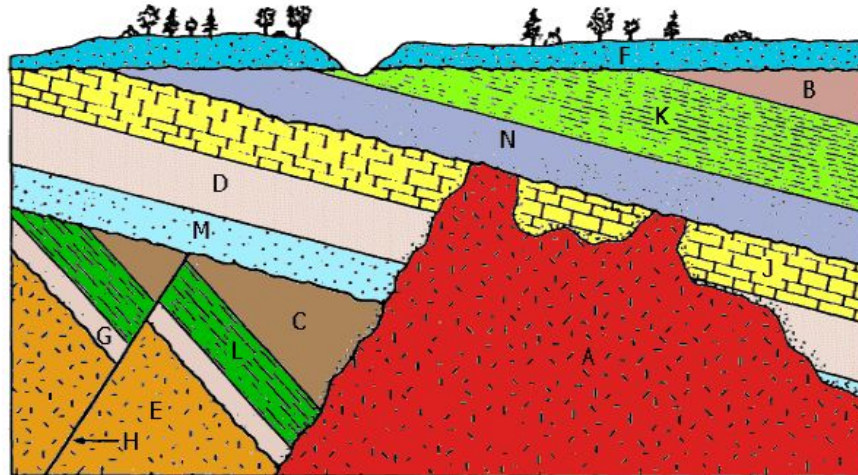
8.

9.

10.

Station C: Dating (and other math)

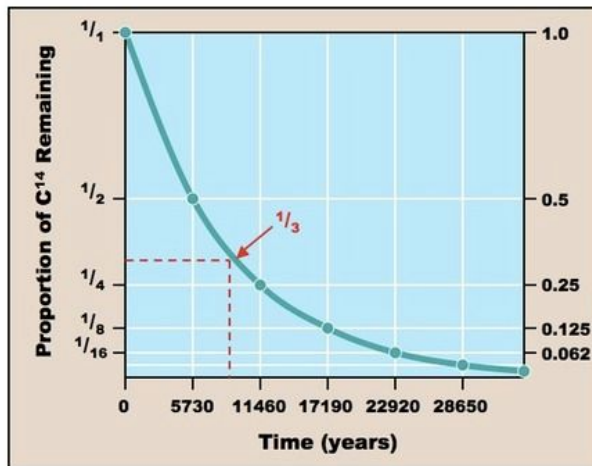
Cover up your answers or else the other person may *cheat on you*. Haha, geddit? 'Cause it's Dating? No?



- Order these from youngest to oldest. (½ point each)

Calculating Age:

Identify proportion of radioisotope remaining (e.g. 0.33)
 ↓
 Identify number of half lives that have occurred (e.g. 1.5)
 ↓
 Multiply this number by the half life of the radioisotope (e.g. 5,730)
 ↓
 $1.5 \times 5,730 = 8,595$



- I swear, if you don't know what element this is, I will slap you in the face. What's the isotope?
- Given 9000 grams of carbon-12, how many grams of it will be left after 34,380 years?
- Velocity (V) $m/s = (0.25g^{0.5})(SL^{1.67})(h^{-1.17})$. g is the acceleration due to gravity, SL the stride length, and h hip height (footprint length \times 4). Relative stride length is a ratio of stride length divided by hip height. Calculate the velocity of a gastropod with foot length of 1 meter and a stride length of 10 meters.
- What is the principle of faunal succession?
- What is a zombie taron?

Station D: True or False

It ain't multiple choice. That's a good test. I'm starting to sound like Mr. Honig.

1. We currently live in the Quarternary epoch. **T/F**
2. An external mold forms after a cast is filled with sediment. **T/F**
3. A key feature of all Lagerstätten is that its fossils are preserved in very good condition. **T/F**
4. Optically Stimulated Luminescence (OSL) is a method of relative dating. **T/F**
5. All vertebrates have teeth made of calcium phosphate (silicate). **T/F**
6. Allosaurus often killed and ate Triceratops. **T/F**
7. During the Great Oxidation Event, methane combined with oxygen, forming carbon dioxide, raising Earth's overall temperature. **T/F**
8. Edward Drinker Cope beat Othniel Charles Marsh in their race to find the most fossils. **T/F**
9. Iguanodon was the first dinosaur to be named. **T/F**
10. Dong Zhiming theorized gradual climate change after finding petrified bamboo in an environment not fit for modern bamboo to survive. **T/F**

Station E: Quick Identification

Read it from left to right



Station E: Quick Identification

You're Cope and Marsh, so make sure nobody cheats. No notes. The number refers to what's on the sticker. ½ point each.

2. Genus

3. Genus

4. Genus

6. Genus

7. Order

8. Genus

9. Genus

10. Genus

11. Genus

12. Genus

14. Genus

15. Genus

16. Order

17. Class, which part of the organism?

19. Class

20. Genus

22. Family

23. Fossil Type

24. Fossil Type

Answer Key:

1. None, IDK. Phanerozoic, blank ½ credit
2. Evolution that occurs because there is a high chance of mutation of the same gene.
3. Signor-lipps: The last organism in a taxon is not recorded as a fossil. Eppil-rongis: The oldest organism in a taxon is not recorded as a fossil.
4. The mass extinction going on right now is the only mass extinction in history. The permian (½ credit) occurred during prehistory.
5. Georges Cuvier
6. All that remains of an adpression is Carbonaceous film/phytoleim, in which case the fossil is known as a compression. Often, however, the phytoleim is lost and all that remains is an impression.
7. 2 organisms don't affect each other at all. No possible examples. (¼ point if good attempt)
8. Domain Kingdom Phylum Class Order Family Genus Species (½ point if 1 missed, ½ point C.C. for Individual)
9. Study of trace fossils
10. Coprolites. (½ point if misspelled).

Station B:

1. Isotelus 2. Isotelus 3. Isotelus 4. Isotelus 5. Isotelus 6. Isotelus 7. Isotelus 8. Isotelus 9. Isotelus 10. Isotelus

Station C:

1. FBNNADMSLGE
 2. Carbon-14
 3. 9000 grams
 4. -7 m/s?
5. Flora and Fauna succeed each other vertically in a specific reliable order that can be ID over wide horizontal distances.
 6. Fossil that was moved to rocks and/or sediments millions of years younger.

Station D:

1. False 2. False 3. False 4. False 5. False 6. False 7. False 8. False 9. False 10. False

Station E:

2. Nummulites 3. Archimedes 4. Rhombopora 6. Favosites 7. Rhynchonellida 8. Atrypa 9. Mucrospirifer
10. Phacops 11. Elrathia 12. Gryphaea 14. Turritella 15. Orthoceras 16. Belemnitida 17. Crinoidea Stem 19. Echinoidea 20. Pentremites 22. Mosasaurus 23. Coprolite 24. Petrified Wood

Compare your score with Jeffrey Trail Middle School's Fossils Team

Member 1: 24.5/51

Member 2: 19.25/51