

Parents and Children, Please encourage your student with the fact that this exam is not nearly as extensive as it was in past years. This year the administration of NCS-MS made the decision to eliminate such comprehensive exams for MS 7th graders. For the past 12 years, my 7th grade Life Science students took both a mid-year and an end-of-year comprehensive exam. The mid-year covered August to December, and the end-of-year exam covered August to May. A focused study guide was provided, and most students made A's or B's. The end-of-year FINAL EXAM was 100 questions covering core concepts from each unit. * These two past assessments were not only tools for me to see what they knew, but mostly tools to force them to review, recall, and better store core foundational concepts into long-term memory for future Physical Science, Biology, and Chemistry in High School and College. Review and repetition is the most effective cognitive process for long-term memory storage & recall.

**** So in light of that background, here is the current EXAM STUDY GUIDE which will only be about 50 questions.**

It will still review some past core concepts, but not nearly as many.



1. Know the difference between Direct/Observational vs. Indirect/Historical science
2. Be able to work some simple SI metric system math problems
3. Know the difference between Independent vs. Dependent variables
4. Know that a hypothesis is a testable prediction stated as an "IF THEN" formula.
5. Know the purpose and process of a controlled experiment
6. Know the difference between Biogenesis Law vs. Spontaneous Generation theory
7. Know the difference between Magnification vs. Resolution
8. Nucleus as the coded information computer system that builds & runs living systems
9. Cells as the basic unit of life, the smallest thing that can be called alive.
10. Organic vs. Inorganic compounds
11. Osmosis as the diffusion of water, the most common chemical in cells and bodies
12. Genes as coded information factors that control traits
13. Meiosis vs. Mitosis
14. Mutations as errors in the DNA that over time destroy genetic information & creatures
15. How sex chromosomes control gender XX = Female, XY = male
16. Why the classification level "family" as the biblical "Kind" supports Noah's Ark biology.
17. Which is the correct order of classification levels?
Kingdom, phylum, class, order, family, species, genus
18. *Genus species* as the organism's scientific name
19. How homeostasis is the process that maintains internal stability in cells and bodies.
20. How the Law of Biogenesis impacts evolution's claim for the origin of the first cell?
21. How Carbon-14 discovered inside DIAMONDS shows the Earth cannot be billions of years old?
22. Since "nostril" breathing animals were what God commanded Noah to take on the Ark makes it feasible?
23. How the internal volume of Noah's Ark, 1.5 million cubic feet makes it feasible?
24. How discoveries of dinosaur soft tissue/blood cells in fossil bones supports people/dinosaurs lived together after Noah's flood?
25. How Job 40:15's description of Behemoth's cedar/pine tree sized tail indicates Job lived with dinosaurs
26. How mutations are a serious challenge to evolution instead of a support for it
27. Why the fact that fossils can only form if rapidly buried under watery sediment supports the flood
28. Why God would be a monster if He designed survival of the fittest (predators/parasites) as theistic evolutionists claim
29. How autotrophs as sunlight powered producers are the foundational energy source for heterotrophs
30. The fact that Invertebrates and vertebrates belong to what the animal kingdom
31. The backbone difference between Invertebrates and Vertebrates
32. How ectotherms and endotherms maintain body heat
33. The correct order for the levels of ecological organization: organism, population, community, ecosystem, biosphere
34. The difference between: food chain, food web, energy pyramid
35. How God's declaration 10 x's in Genesis Chapter 1 by the phrase "according to their kinds" is a genetic law
36. How the law of entropy is taught in the Bible as the opposite of evolution?
37. Know how according to the Bible (Gen 1:29-30; 9:3; Isa 11 & 65) the ecology of EDEN compares to today?
38. Know what was the greatest ecological disaster ever in the PAST History (His-story) of Earth
39. Know what was the second greatest ecological disaster ever in the PAST history (His-story) of Earth
40. Know how bad the ecological disasters of the coming 7-year Tribulation that Jesus warned about in Matthew 24 will be
41. Know the amazing science truth did the Holy Spirit lead the uneducated fisherman, Peter, to write about God's final judgment of this old infected Earth? *"But the [judgment] day of the Lord will come [suddenly] ..., in which the heavens will pass away with a roar and the elements/atoms will be destroyed with intense heat, and the earth and its works will be burned up. Since all these things are to be destroyed in this way, what sort of people ought you to be in holy conduct and godliness!" (2 Pet 3:10)*
42. Know what the Hebrew term Nephesh means and how it is the same and also different for some animals and humans.

