# FINAL EXAM STUDY GUIDE

## Science 9 Mr. Zunick

## FORMAT: 100 multiple choice questions 10 short answer questions

#### SHORT ANSWER (CHOOSE ANY 10 OF THE FOLLOWING QUESTIONS):

- 1. Discuss elastic limit. Show how the Earth's crust results in earthquakes, tsunamis, hot spots/islands, and volcanoes. Include diagrams and specific examples.
- 2. Compare and contrast weathering, erosion, and deposition. Know the 2 types of weathering and 4 types of mass movements. How are mass movements prevented?
- 3. Know the 3 types of rocks. Draw and label the rock cycle. The diagram will NOT be given to you.
- 4. Read a weather map and answer questions about it.
- 5. What are necessary conditions for fossils? Describe each type of fossil and give examples.
- Know a lot of the major terms about oceanography. For example, know tides, spring 6. tide, neap tide, crest, trough, parts of the ocean floor, and rip current. Know diagrams or pictures for all of the terms.
- 7. Draw the 8 phases of the moon. Draw Earth-sun diagrams for each season.
- 8. Know the main properties of halite and quartz. Know all the possible tests for minerals, such as hardness, streak, taste, optical, break pattern, color, and luster.
- 9. Explain how convection currents occur in the Earth's mantle. How do they cause divergent, transform-fault, and convergent boundaries? Draw and label the diagrams.
- 10. Know how planes or boats are affected by winds, such as the prevailing westerlies, jet streams, and the Coriolis effect. Be able to explain intended vs. actual path.
- Know the 4 main branches of Earth science (geology, astronomy, meteorology, and 11. oceanography). How are they related? How are they different? How does each one involve chemistry?
- 12. Discuss all of the phases in the life cycle of a star. Clearly explain how one phase transitions into the next. Draw and explain the HR diagram.
- Discuss the various types of life that existed in each era of geologic time. Also explain 13. how the Earth changed throughout each time period.
- 14. Explain some of the various "ZUNICKisms" that we learned about this year.

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## Chapter 10:

continental drift, Pangaea, fossil clues, climate clues, rock clues, seafloor spreading, subduction zone (trench), 3 types of boundaries, examples of boundaries, convection currents in the mantle

### Chapter 11:

earthquake, elastic limit, normal fault, reverse fault, strike-slip fault, primary wave, secondary wave, surface wave, focus, epicenter, seismograph, tsunami

## Chapter 12:

volcano, divergent boundary, convergent boundary, hot spots, violent vs. quiet eruptions, shield volcano, cinder-cone volcano, composite volcano

#### Chapter 13:

necessary conditions for fossils to form, petrified remains, carbonaceous films, mold, cast, original remains, trace fossils, principle of superposition, relative dating, absolute dating

#### Chapter 14:

geologic time scale, Pre-Cambrian time, Paleozoic Era, Mesozoic Era, Cenozoic Era, all changes to the Earth and living things throughout geologic history

#### Chapter 15:

gases in the atmosphere, layers of the atmosphere, ozone, CFC, radiation, conduction, convection, Coriolis effect, surface winds, jet streams

#### Chapter 16:

water vapor, humidity, condensation, formation of clouds, types of clouds, air masses, cold front, warm front, stationary front, occluded front, how to read a weather map

#### Chapter 23:

Earth's rotation, Earth's revolution, Earth's tilt, spring, summer, fall, winter, phases of the moon, solar eclipse, lunar eclipse

#### Chapter 24:

formation of the solar system, facts on each planet

#### Chapter 25:

HR diagram, constellation, Polaris, absolute/apparent magnitude, parallax, nebula, main sequence star, red giant, white dwarf, black hole, Doppler shift, galaxies

THIS IS NOT AN EXHAUSTIVE LIST OF VOCABULARY WORDS! THERE WILL BE OTHERS...