# MIDTERM 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. Draw and explain rip currents, parts of a wave, spring tides, and neap tides.
- Be able to draw and describe the various forms of weathering and erosion. This 2. refers to the "20 pictures" from chapters 7 and 8.
- 3. Know the 3 types of rocks. Draw and label the rock cycle. The diagram will NOT be given to you.
- 4. Read a world map and a topographic map and answer questions about them.
- 5. Draw the Atlantic Ocean floor from New Jersey to Portugal. Draw and label all of the parts. Include an explanation of the DPB located at the Mid-Atlantic Ridge.
- 6. Review all of the locations on the "Plate Boundaries" chart. Be able to explain how various locations have formed (divergent, C/C convergent, C/O convergent, transform-fault). Also know how the Grand Canyon was formed.
- 7. Be able to draw orbital diagrams for different elements. Know how to determine if an element is reactive (able to make a bond) or non-reactive (not able too make a bond).
- 8. Know the five-part definition of a mineral. Know the difference between a mineral and a rock. Know all of the mineral tests. Know what kinds of tests are used for rocks, and whether or not they are different from mineral tests.
- 9. Know all about Pangaea and continental drift. Be able to explain all 4 types of evidence (Pangaea, rock clues, climate clues, fossil clues) from the chapter 10 notes. Also be able to draw and discuss sea-floor spreading.
- 10. Know each of the following minerals: talc, kaolin, mica, graphite, halite, quartz, magnetite, amethyst, galena, diamond.
- 11. Explain some of the various "ZUNICKisms" that we learned about this year.

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## Chapter 1:

steps in the scientific method, variable, control, hypothesis, theory, law

## Chapter 2:

atom, element, proton, neutron, electron, compound, mixture, chemical property, physical property, states of matter, density, left/right of the staircase

### Chapter 3:

definition of mineral, properties of minerals, gem, ore, titanium

#### Chapter 4:

definition of rock, rock cycle, igneous, metamorphic, sedimentary, intrusive, extrusive, basaltic, granitic, andesitic, heat and pressure, foliated, non-foliated, compaction, cementation, clastic, chemical, organic, pumice, granite, obsidian, slate, limestone, sandstone

#### Chapter 6:

latitude, longitude, Mercator, Robinson, conic, topographic, distortion, time zones, international date line, contour lines

Chapter 7: definition of weathering, mechanical weathering, chemical weathering

#### Chapter 8:

definitions of erosion and deposition, slump, creep, rockslide, mudflow, how to reduce erosion, terrace, retaining wall, continental glacier, valley glacier, plucking, outwash, till, deflation, abrasion, sand storm, dust storm, sand dune

#### Chapter 10:

continental drift, Pangaea, fossil clues, climate clues, rock clues, seafloor spreading, alternating bands of magnetism, subduction zone (trench), 3 types of boundaries, ALL examples of boundaries from your chart and map, convection currents in the mantle

#### Chapter 11:

normal fault, reverse fault, strike-slip fault

#### Chapter 18:

surface currents, upwelling, waves, crest, trough, breaker, tides, spring + neap tides

#### Chapter 19:

continental shelf, continental slope, abyssal plain, mid-ocean ridge, trench