Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block \_\_\_\_\_\_\_\_\_ Binder \_\_\_\_\_\_\_\_\_\_\_

**Earth Science**

**Fall 2016 FINAL Study Guide**

**Study your quizzes and tests. These will be very helpful.**

**#23 – Skills Unit Test**

 **#7 Metric Conversion Practice Sheet, Back of #15**

 **#10, 11, 12, 13 Scientific Notation**

 **#17 Scientific Method notes**

**#22 – Skills Unit Test – Study Guide**

**#33 – Energy Transformations Quiz**

 **#29 Energy Transformations Video Notes**

 **#30 Forms of Energy**

 **31 Energy Transfer Problem Set 1**

**#45 – Energy and Resources Unit Test**

 **#36 Fossil Fuels PPT Notes – 3 Types**

 **#38 – Alternative Energy Sources – Notes**

**#43 – Resources Unit Study Guide**

**#52 – Chemistry Unit Quiz**

**#46 – Definitions and Illustrations**

**#48 – Notes – Isotopes**

**#50 – Atomic Symbol Worksheet**

**#51 – Chemistry Unit Study Guide**

**Geologic Time Unit**

 **54 – Notes (FIB) Relative Dating**

 **55 – Relative Dating Practice (Front), Fossils: Evidence of Past Life (Back)**

 **57 – FIB Notes – Absolute Dating**

**Unit I - Measurement**

**Scientific Method**

 Independent Variable vs. Dependent variable

 What are constants, in an experiment?

 Hypothesis

**Scientific Method**

 Scientific Notation into Standard Notation ex. 1.2345 x 106 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 1.75 x 10-4 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Standard Notation into Scientific Notation ex. 12,500 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 0.0000125 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Metric System**

 Reading Graduated cylinders and meter sticks



**Metric Conversions**

 Converting between units

 Ex – 12.5 grams into \_\_\_\_\_\_\_\_\_\_ milligrams 217.65 mL = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ dL

 12.5 km = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ daL 506.3 cm = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ m

**Unit 2 - Natural Resources and Energy**

Fossil Fuel

Alternative Fuel

Renewable energy

Non-renewable energy

Conservation

Efficiency

Law of Conservation of Energy

Geothermal

Hydroelectric power

Solar power

Wind energy

Nuclear Energy

Kinetic energy

Potential energy

Energy Transformation

Thermal energy

Motion energy

Stored mechanical energy

Radiant energy

Sound energy

Gravitational energy

Natural Gas

**Unit 3 - Chemistry**

Nucleus

Atom

How to figure out # of protons, neutrons, and electrons in an atom if you know the Mass number and Atomic Number or Mass Number and charge?

Carbon – 14 \_\_\_\_\_\_\_\_\_ P \_\_\_\_\_\_\_\_\_\_ N \_\_\_\_\_\_\_\_\_\_\_ e

Uranium – 238 \_\_\_\_\_\_\_\_\_ P \_\_\_\_\_\_\_\_\_\_ N \_\_\_\_\_\_\_\_\_\_\_e

Nitrogen (-1) \_\_\_\_\_\_\_\_\_ P \_\_\_\_\_\_\_\_\_\_ N \_\_\_\_\_\_\_\_\_\_\_e

Silicon (+2) \_\_\_\_\_\_\_\_\_ P \_\_\_\_\_\_\_\_\_\_ N \_\_\_\_\_\_\_\_\_\_\_e

Element

Proton – definition and charge

Neutron – definition and charge

Electron – definition and charge

Isotopes

Ion

Atomic Number

Mass Number

**Unit IV - Geologic Time**

Superposition

Correlation

Uniformitarianism

Principle of Superposition

Principle of Cross-cutting

Principle of Included Fragments

Uncomformity

Relative Dating

Absolute Dating

Principle of Original Horizontality

Know how to find which layer is older/younger and the principle that supports it.

Half-life

Know how to read a graph and find 1st half-life, 2nd half-life, 3rd half-life

Oldest years of when Carbon-14 dating is reliable

Half-life of U-238

Half-life of C-14

Age of the earth