**Final Exam Review Book Project**

This book is worth a **FORMAL PROJECT GRADE** and is due on **MAY 19 (A-DAY) and MAY 20 (B-DAY)!!!!**

For this project you will be constructing a book about each of the units discussed throughout the course.

**Front Cover** – Title, neat and colorful, your name

**Page 1 : Table of Contents**

List page numbers and topics found on those pages **SUGGESTED page numbers and topics are included here…you can ADD to the pages if you need more space…but you can NOT take away from them!!**

**Page 2: Scientific Method**

List the 6 steps of the scientific method, IN ORDER. Answer the following questions:

1. A hypothesis MUST be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_!

2. What are the 2 types of data? What does EACH of them represent?

3. If your conclusion **DOES NOT** support your hypothesis, what is your next step?

4. If your conclusion **DOES** support your hypothesis, what is your next step?

Define the following terms: Scientific Method, Independent Variable, Hypothesis, Dependent Variable, Theory, Control Group, Law, Experimental Group, Latitude, Contour Line

**Page 3: Mapping**

Draw the globe, label the equator, Tropic of Cancer, and Tropic of Capricorn. Label their latitude measurements. What is the zone between these two lines called? Why?

Draw the globe and show it divided into N/S hemispheres **AND** E/W hemispheres. Label the equator and the Prime Meridian.

What does latitude measure? What does longitude measure?

What is a topographic map? Draw what a hill looks like on a topographic map. Draw what a depression looks like on a topographic map

**Page 4: Astronomy**

Explain the Big Bang Theory. Draw a picture to illustrate the concept

What are Kepler’s 3 laws of planetary motion? Explain **EACH** one. Draw a picture for **EACH** one to illustrate to concept

Draw the Earth in **APHELION** and **PERIHELION**.

When is the Earth moving **FASTEST**? Why?

When is the Earth moving **SLOWEST**? Why?

Explain the Nebular Hypothesis. Give the 5 steps in the formation of our Solar System

List and explain the three ways the earth moves.

Draw the 3 global climate zones.

**Page 5: Reasons for the Seasons**

Draw and label the Earth’s location in respects to the four seasons.

Describe each of the seasons. Be sure to also include dates and amounts of daylight for each season.

Discuss the angle of the Sun’s rays in **EACH** zone.

Describe the intensity of the Sun’s heat in **EACH** zone.

List **AND** explain 8 things that would happen if we didn’t have a Sun

How does the Sun produce its energy? Describe what is happening during fusion.

**Page 6: Continental Drift**

Who was Alfred Wegener? What did he contribute to Plate Tectonics? Was his theory correct? Why was his theory rejected?

What were the 4 forms of evidence that Wegener used to support his theory? Give an explanation of **EACH** type of evidence. Draw a picture to help illustrate **EACH** form of evidence.

What was Pangaea? What does the word Pangaea mean? Draw a picture of Pangaea.

**Page 7: Plate Tectonics**

What is Plate Tectonics? Give an explanation of how plate tectonics occurs. What drives plate tectonics? Draw a picture of the **MAJOR** tectonic plates

What are the 3 types of tectonic boundaries? What type of movement is happening at **EACH** type? What is being formed at **EACH** type? Draw a picture of **EACH** type.

What is a subduction zone? What happens in a subduction zone? What is formed in a subduction zone? Draw a picture of a subduction zone.

What is Seafloor Spreading? What are the 3 steps in Seafloor Spreading, **IN ORDER**. Draw a picture of Seafloor Spreading **AND** label the **OLDEST** crust and the **YOUNGEST** crust

**Page 8: Faults**

Draw the 5 types of faults. Label the **FOOT WALL** and the **HANGING WALL** on **EACH**. Tell what kind of boundary **AND** what kind of stress causes **EACH** type of fault.

What is the Elastic Rebound Hypothesis?

**Page 9 and Page 10: Earthquakes**

What causes an Earthquake?

What is the difference between foreshocks and aftershocks?

What are the three steps used to determine the epicenter of an earthquake? Draw a picture showing this done on a map.

What are the three types of earthquake waves? How does **EACH** type move?

**Page 11: Rocks and Rock Cycle**

What is the difference between **MECHANICAL** and **CHEMICAL** weathering?

List the 4 types of **MECHANICAL** weathering and explain **EACH** type.

List the 4 types of **CHEMICAL** weathering and explain **EACH** type.

Draw and label the Rock Cycle.

What are the 3 types of rocks **AND** how is **EACH** type formed?

What are the 3 types of sedimentary rocks? How does **EACH** type form? Give an example of **EACH** type.

What are the two types of metamorphic rock? Draw a picture of **EACH** type **AND** give an example of **EACH** type

What is the difference between **INTRUSIVE** and **EXTRUSIVE** igneous rocks?

**Page 12: Soil**

Explain the factors that affect the rate of weathering.

Draw a soil profile with the 3 main horizons. Label **EACH** horizon **AND** describe what **EACH** layer is made of

What are the 5 factors in soil formation? Explain **EACH** one.

**Page 13: Atmosphere**

What is the difference between O2 and O3? What does ozone do for us? What are the three steps in how ozone is formed? Draw a picture showing the formation of ozone.

Draw and label the 4 layers of our atmosphere (**IN ORDER**, starting from the Earths surface) Give **AT LEAST** 2 characteristics for **EACH** layer.

What are the 3 types of air lifting? Explain what is occurring during **EACH** type. Draw a picture of **EACH** type to illustrate the concept

What are the 3 types of fronts? How does **EACH** type form? What kind of weather does **EACH** type bring? How do you draw **EACH** type on a weather map?

**Page 14: Weather**

What are the 3 types of severe weather? How does a thunderstorm form? How does lightning form? Draw a charged cloud – **LABEL** the charges. What is thunder?

Describe what is happening during El Nino **AND** La Nina.

What are the 5 types of weather maps? What does **EACH** type show?

What are the two properties of air masses?

**Page 15: Water**

What % of the Earth is covered in water? What % of water is available for human use? **WHY**? Where is the rest of it? What is the difference between **surface water** and **ground water**?

Draw the water cycle, label **EACH** part and describe what is happening in **EACH** part.

Draw a cross-section picture showing ground water. Label the saturated zone **AND** the unsaturated zone. Label the water table

**Page 16: Rivers and Oceans**

Draw a stream with the following parts labeled: Headwaters, Two tributaries, High gradient area, Alluvial fan, Low gradient area, Meanders, Oxbow lake, Delta, Base level, Mouth

Draw a wave and label the crest, trough, wave height, and wavelength

Draw a cross-section of the ocean floor with the following parts labeled: Basin, Abyssal Plain, Continental Rise, Continental Slope, Continental Shelf, Trench, Seamounts.

**Back Cover**

About the Author page **OR** a dedication page – **YOUR CHOICE**!

**ALL Information MUST either be typed or hand written neatlyq (points will be docked for sloppiness)!!**

**DUE DATE: A Day – May 19th**

**B Day – May 20th**

Book should be visually appealing (neat, colorful, etc.)

Book should be bound together (in a binder, done at Staples, in a folder, etc.) Please do not just hand me a stack of papers stapled together. (results in -10 points)

If you have ANY QUESTIONS at all email me at kendra1.adam@cms.k12.nc.us