**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_**

**The Physical World and Climates of the Earth**

***Directions: Answer the questions in as much detail as possible. Answers are found on pages 37-72 in the World Geography textbooks. They are in order.***

**CHAPTER 2: THE PHYSICAL WORLD**

**Lesson 1: Planet Earth pg. 37**

1. What prevents most asteroids, comets and meteoroids from colliding with Earth?
2. Which four planets are closest to the sun?
3. Why might it be impossible for life to exist on Neptune? Think about where it is located.
4. Using the graphic organizer like the one below, list descriptions and examples for the components that make life on Earth possible.

|  |  |  |
| --- | --- | --- |
| COMPONENT | DESCRIPTION | EXAMPLE |
| Hydrosphere |  |  |
| Lithosphere |  |  |
| Atmosphere |  |  |
| Biosphere |  |  |

1. Define continental shelf and explain where it is located:
2. In what physical system does Earth exist?
3. How does the biosphere support life on Earth?

**Lesson 2: Forces of Change pg. 44**

1. Describe the four layers of the earth:

|  |  |
| --- | --- |
| **LAYER** | **DESCRIPTION** |
| CRUST |  |
| MANTLE |  |
| OUTER CORE |  |
| INNER CORE |  |

1. Define: Continental drift:
2. Define Plate tectonics:
3. Define Magma:
4. How are volcanoes formed and where are they typically located?
5. How does weathering differ from erosion?
6. What are the three different types of erosion?
7. List the five factors that influence soil formation:
8. Explain the difference between subduction and accretion and the significance of each?

**Lesson 3: Earth’s Water pg 51**

1. What drives the Earth’s water cycle?
2. What causes evaporation?
3. Draw the water cycle and explain Evaporation, Condensation, and Precipitation:
4. What are the four types of precipitation:
5. How might contaminated water end up affecting people even if they live far away from the source?
6. What is the name of the process that removes salt from ocean water?
7. What portion of the Earth’s freshwater is found below the surface?

**CHAPTER 3: CLIMATES OF THE EARTH**

**Climate Change: The Impacts of Humans pg. 58-59**

1. How is global warming different from climate change?
2. Describe two factors contributing to climate change:
3. How will climate change affect humans? Consider water supplies, agriculture, power and transportation systems , the environment, and human health.

**Lesson 1: Earth-Sun Relationships pg. 60**

1. As you read the lesson, use a chart to list the effects of the Earth-Sun Relationships on Climate

|  |  |
| --- | --- |
| **Earth-Sun Relationships** | **Effects on Climate** |
| **Earth’s Tilted Axis** |  |
| **Earth’s revolution** |  |
| **Earth’s revolution and tilt** |  |

1. Explain the difference between solstices and equinoxes?
2. In what months do the sun’s rays directly strike the Equator? The Tropics of Cancer and Capricorn?
3. What factor distinguishes weather from climate? Explain:
4. How does the greenhouse effect influence Earth’s surface temperature?

**Lesson 2: Factors Affecting Climate pg 64**

1. How are climate patterns related to each zone of latitude?

|  |  |
| --- | --- |
| **ZONE OF LATITUDE** | **CLIMATE PATTERNS** |
| 1. LOW LATITUDE ZONE |  |
| 1. HIGH LATITUDE ZONE |  |
| 1. MIDLATITUDE ZONE |  |

1. What happens to temperature as elevation increases?
2. What happens to the global winds of the Equator?
3. Draw an example of the Rain Shadow Effect and label ocean, windward side, leeward side:

**Lesson 3: World Climate Patterns pg 69**

1. Use a web diagram like the one below to take notes about the Earth’s four climate zones.
2. Which biome do you think has the smallest population and why?
3. In which type of biome is your town or city?
4. How do changes in temperature and moisture affect vegetation?
5. Why do high-latitude climates have limited vegetation?
6. What are three indicators of climate change?