

APES – Review Book - Activity – CHAPTER 3

READ the Chapter 3 Review and complete the following WS. Please study the summarized content to help you understand the **KEY Terminology** and the **KEY concepts**.

The responses are hand generated (in PEN). You don't need to print this document; you just need the lined paper to respond to the questions.

I. **STUDY Key Terms.** Make sure to memorize the terms. *(There will be quiz on each Chapter Review)*

II. Answer the **Comprehension Questions and/or Concept Topics**:

1. Factors influencing Climate:

To understand how climate is defined and what makes it change in the last 100+ years, you need to first understand the basics:

- a) **UNDERSTAND** – properties of air, water, and land
- b) **UNDERSTAND** – uneven heating of earth's surface
- c) **UNDERSTAND** – rotation of the earth on its axis

2. **EXPLAIN Coriolis effect.** Draw a diagram.

3. Significant influence of the weather comes from disruptions of the ocean-atmosphere system. Study, understand and then **EXPLAIN** how

- **El Nino** happens and what is the aftermath of the event
- **La Nina** happens and what is the aftermath of the event

system that is controlling weather patterns around the world.

A) **DEFINE: currents, thermocline, upwelling**

5. **DEFINE: Rain shadow effect**, **DRAW** a diagram identifying the phenomena

6. **DEFINE: Earth's Biomes** – focusing on individual **terrestrial types**, such as – **forest, grasslands, deserts biomes**

7. **Earth's Biomes** – focusing on individual **aquatic types**, such as – **freshwater and marine biomes**

8. Understanding **Marine Biomes** requires a lot of terminology and proper examples for each zone. **DEFINE: important life forms of the marine life** – **phytoplankton, zooplankton, nekton, and benthos**. Other important factors in describing the marine biomes are – **euphotic zone, dissolved oxygen, turbidity**

9. Parts of the marine biomes are - **coastal zone, estuaries, intertidal, coral reefs, open ocean, and sea floor**. **DEFINE** all.

10. **Fresh water life zones** have different sections to marine zone, **DEFINE: littoral zone, limnetic zone, profundal zone, benthic**.

11. **Fresh water biomes** consists

- a) **DEFINE: rivers – lotic zones**

b) DEFINE: **inland wetlands and lakes – lentic zone**

- Focus on nutrient enrichment – **oligotrophic and eutrophic**
- Focus on river recharge and parts of the river flow – **watershed, source zone,**

12. Human activities impact on the biodiversity. Define them all and explain it with the example for each human impact:

- A) habitat loss
- B) habitat fragmentation
- C) Invasive species
- D) Endangered species
- E) Threatened species

13. Focus on studying and understanding what are some solutions and alternatives to sustaining terrestrial and aquatic ecosystems.

A) **Sustaining Terrestrial Diversity**

FOREST

- a) DEFINE: **Old-growth forest**
- b) DEFINE: **secondary forest and tree plantations**
- c) DEFINE: **threats to forest ecosystems –**
 - **Deforestation**
 - **Logging practices**
 - **Forest fires**
 - **Insects and climate change**
 - **SOLUTIONS to Forest Sustainability**

GRASSLAND

- a) DEFINE: **rangeland**
- b) DEFINE: **pastures**
- c) DEFINE: **threats to grassland ecosystems –**
 - **Overgrazing**
 - **SOLUTIONS to Grassland Sustainability – rotational grazing**

B) **Sustaining Aquatic Diversity**

MARINE

- a) DEFINE: **overharvesting**
- b) DEFINE: **pollutions**
- c) DEFINE: **climate change**
- d) DEFINE: **invasive species**

FRESHWATER

- a) DEFINE: **pollution**
- b) DEFINE: **destruction of riparian zone**
- c) DEFINE: **invasive species**
- d) **SOLUTIONS of aquatic ecosystems**

14. **List** and provide short **descriptions** of **ALL the TREATIES and Laws** mentioned in this chapter.