

## **APES – Review Book - Activity – CHAPTER 4**

**READ the Chapter 4** 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. Copy the **Key Terms** and define them all. Make sure to memorize the terms. *(There will be quiz on each Chapter Review)*
- II. Answer the **Comprehension Questions and/or Concept Topics**:

### 1. Human Population

To understand how human population changes and what are two different growth, other factors and key words are important

#### a) **UNDERSTAND and EXPLAIN – total fertility rate, replacement-level fertility, infant mortality.**

Based on these key terms, identify which country has high fertility rate and which country has low fertility rate.

#### b) **UNDERSTAND and EXPLAIN – crude birth rate and crude death rate – when do we look at these factors?**

#### c) **UNDERSTAND and EXPLAIN – immigration and emigration – when do we look at these factors?**

### 2. DEFINE and MEMORIZE: **The Rule of 70**

The following pages 141 – 143 contain 3 EXAMPLPES – you are expected to study and practice them. Write them on your paper in a proper set-up, using all the necessary units! (The “%” sign is considered a unit)

### 3. DEFINE: **Age Structure diagrams**

- **Explain and DRAW** how is the age structure diagram looking for Uganda, explain why?
- **Explain and DRAW** how is the age structure diagram looking for Germany, explain why?

### 4. Population is constantly increasing (8 bil.) and with that the demand on resources. Chose one developing and one developed country and explain how the demographic transition is taking place in those countries.

- ✓ **One negative factor of population increase is spread of infectious diseases.**

**EXPLAIN why is this the case in developing countries?**

### 5. To control the resources use and dependance the societies need to switch from unsustainable living to sustainable, meaning adapt practices that will not deplete the resources, but give the natural resources time to replenish.

- ✓ **DEFINE soil and its depletion**
- ✓ **DEFINE Soil Triangle**

### 6. Population growth and agriculture have a tight correlation; they both influence one another. With increasing population, agriculture must be modernized, and/or the primitive set up for agriculture leaves population starving.

A) STUDY and DEFINE: various levels of sufficient nutrients in population – **malnutrition, undernutrition, overnutrition, Kwashiorkor condition, marasmus condition, anemia, goiter, vitamin A deficiency**

7. DEFINE types of agriculture, from the primitive single family surviving farmers to mega companies

A) **monoculture – inorganic chemical fertilizers, heavy machinery, GMOs**

B) **traditional, subsistence agriculture**

C) **Slash-and-burn**

D) **organic and regenerative agriculture** – yup, you're right, it's not here so LOOK elsewhere

8. DEFINE and EXPLAIN negative impact of agriculture on the environment:

A) **reasons to soil erosion**

B) **sustainable methods of agriculture to control soil erosion – no/low till, terracing, contour plowing, windbreakers**

C) **deforestation**

D) **contaminated runoffs – fertilizers**

E) **AP Tip – READ VERY CAREFULLY**

F) **desertification**

G) **soil salinization**

H) **waterlogging**

9. The main purpose of agriculture is to feed people, so anything that hinders that process is considered a pest. There are many different methods to achieve that:

- ✓ **Synthetic pesticides** – herbicides, fungicides, rodenticides,
- ✓ **Broad spectrum pesticides**
  - Chlorinated hydrocarbons – DDT, dieldrin
  - Organophosphates – malathion and parathion
- ✓ **Narrow spectrum pesticides**
  - Selected to kill ONLY one target – find an example to provide as your response
  - EXPLAIN what a **pesticide treadmill** is? (I did not teach you that!)
- ✓ STUDY and EXPLAIN what can be achieved with **IPM and/or circle of poison**
  - Rachel Carson
- ✓ **MEAT PRODUCTION** – constantly increasing demand
- ✓ **FISH HARVESTING** – DEFINE and EXPLAIN the methods of fishing providing the examples for each one, identify the **bycatch**
  - **Long-line fishing**
  - **Purse seine fishing**
  - **Drift-net fishing**
  - **Trawler fishing**
  - **Whaling**