**APES Study Guide**

**Unit 6: FOOD & AGRICULTURE**

*The sixth unit of APES begins our study of Food & Agriculture. In this unit we will study the basic nutritional needs of human beings, what happens when these needs are not met, and what is being done in an attempt to make certain that these needs are met for all people. We will also study agriculture, soils and soil conservation, and the “green revolution.”*

**Textbook Reference:**

Chapter 12 – Food, Soil, and Pest Management

**Vocabulary:**

*Directions: Review key vocabulary, words may appear in quizzes and/or tests. You are not required to write the definitions but are encouraged to review them online*

Chapter 12

animal manure

aquaculture

chronic undernutrition

chronic malnutrition

compost

desertification

famine

fishery

food security

food insecurity

green manure

green revolution

high-input agriculture

hunger

hydroponics

industrialized agriculture

integrated pest management (IPM)

irrigation

organic fertilizer

overnutrition

pest

pesticides

plantation agriculture

polyculture

salinization

slash-and-burn agriculture

soil conservation

soil erosion

traditional intensive agriculture

traditional subsistence

agriculture

waterlogging

**Study Guide Questions (SGQ):**

*Directions:**Answer in complete sentences in your composition books. (must be handwritten)*

Chapter 12

1. Describe the effects of diet deficiencies in vitamin A, iron, and iodine.
2. What are the major advantages and disadvantages of raising food hydroponically in greenhouses?
3. Describe industrialized food production in the United States.
4. Describe the growth of industrialized meat production.
5. Summarize the use of energy in industrialized food production. Why does it result in an energy loss?
6. What are the major harmful environmental impacts of agriculture?
7. What is soil erosion and what are its two major harmful environmental effects?
8. What is desertification and what are its harmful environmental effects?
9. What is the biggest problem resulting from excessive use of water for irrigation in agriculture?
10. Summarize agriculture’s contribution to projected climate change.
11. Explain how industrialized food production systems reduce biodiversity in areas where crops are growing.
12. Describe the advantages and disadvantages of using genetic engineering in food production.
13. Compare the advantages and disadvantages of industrialized meat production.
14. Compare the advantages and disadvantages of aquaculture.
15. Describe Rachel Carson’s contribution to environmental science.
16. Describe the use of laws and treaties to help protect us from the harmful effects of pesticides.
17. Define integrated pest management (IPM) and discuss its advantages and disadvantages.
18. How have governments used subsidies to influence food production and what have been some of their effects?
19. Describe ways to prevent and clean up soil salinization.
20. How can we reduce desertification?

**Case Studies:**

*Directions: For each of the following summarize the case study in three sentences; include the author’s main idea.*

Chapter 12

1. Organic Agriculture Is On the Rise – page 277
2. Hydroponics: Growing Crops without Soil – page 282
3. Industrialized Food Production in the United States – The First Green Revolution – page 285
4. Rachel Carson – page 298
5. Soil Erosion in the United States – pages 306-307