**APES** Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Unit 6 – Human Resources**

**Chapter 13 – Food, Soil Conservation, and Pest Management**

What is food security?

What is the difference between macronutrients and micronutrients?

What are the effects of malnutrition/undernutrition?

How can childhood deaths caused by malnutrition be reduced in developing countries?

What three crops account for over half of the world’s calorie consumption?

What are the major cash crops?

What are industrialized agriculture, nomadic herding, plantation agriculture, and intensive agriculture?

What are the ecological services caused by cropland?

What are the economic services caused by cropland?

What are polyvarietal cultivation, intercropping, agroforestry, and polyculture?

What are sheet, rill, and gully erosion?

What are the causes and consequences of desertification?

What is soil salinization? How is it prevented/cleaned up?

What is soil waterlogging?

What are the differences between organic and inorganic fertilizers?

How has the green revolution affected natural capital degradation in the following areas: biodiversity, soil, water, air pollution, and human health?

What are the advantages and disadvantages of genetically modified crops?

What are the advantages and disadvantages of animal feedlots?

Rank the following in kilograms of grain needed per kilogram of body weight: fish, beef, pork, poultry.

What is aquaculture?

What are the advantages and disadvantages of aquaculture?

What are the advantages and disadvantages of conventional pesticide use?

What are the qualities of the ideal pesticide?

What are super pests? Give an example?

Name three government agencies that regulate the sales, use, and distribution of pesticide?

Name some non-traditional ways of controlling pests?

Name three ways to reduce hunger and the affect of agriculture on the environment?

**Chapter 14 – Water**

What is a drainage basin?

What is the difference between a confined aquifer and an unconfined aquifer?

Name three major threats to groundwater?

What areas in the US have an acute shortage of water?

What is the result of populations using water at an unsustainable rate?

What are the advantages and disadvantages of withdrawing groundwater?

What part(s) of the US is over-withdrawing ground water a problem?

What is salt water intrusion? What causes it?

What is a sink hole? What is the cause of a sinkhole?

What can we do to control and/or prevent ground water depletion?

What are the advantages and disadvantages of building a dam as a reservoir of water?

Give a short explanation of what is going on at the Three Gorges Dam in China.

How has California dealt with water use?

Give a short explanation of what the Ariel Sea Disaster.

How can we conserve water lost due to irrigation?

What is center pivot irrigation?

How can we conserve water in personal use?

How would raising the price of water help conserver it?

How does deforestation affect water conservation?

What can we do to prevent and control flood damage?

**Chapter 16 – Non-Renewable Energy**

Which uses more non-renewable energy? Households or commercial?

What percentage of renewable energy does the US use? The world?

What is net energy?

What is the best source of net energy for space heating?

What is the best source of net energy for high temperature heat?

How is crude oil turned into different petroleum products?

What is OPEC?

What are the advantages and disadvantages of using conventional oil?

What is oil sand or oil shale?

What are the advantages and disadvantages with obtaining oil from oil sand or oil shale?

Where is most of the natural gas in the world?

How long is natural gas predicted to last?

What are the advantages and disadvantages of using natural gas?

What happens to solid carbon based energy as water is removed?

Where are most of the world’s coal deposits?

Give a brief description of how a coal driven electrical generating plant works.

What are the advantages and disadvantages of using coal?

What are the advantages and disadvantages of synthetic fuels?

Give a brief description of how a nuclear power generating plant works.

What happened to nuclear power?

Give a brief history of Chernobyl.

What are the advantages and disadvantages of nuclear power?

What possible solutions have been suggested to dispose of spend nuclear material?

**Chapter 17 – Energy Efficiency and Renewable Energy**

What are four devices that waste large amounts of energy?

How do we reduce energy waste?

How can industry improve energy efficiency?

How can transportation improve energy efficiency?

Describe how a hybrid electric car works.

How does a hydrogen fuel car work?

What are the problems or a hydrogen fuel cell car?

How can we improve the efficiency of newly built houses?

How can we improve the efficiency of existing houses?

What is a strawbale house?

What is a living roof?

Why are we still wasting so much energy?

Give four examples of renewable energy resources?

What is the difference between active and passive solar heating?

What are the advantages and disadvantages of solar heating?

How can we cool houses naturally?

What are the advantages and disadvantages of high temperature heat and electricity?

What are the advantages and disadvantages of solar cells?

What are the advantages and disadvantages of large scale hydropower?

How can we produce electricity from the water cycle?

How can we produce electricity from the wind?

Describe how a wind turbine works?

What are the advantages and disadvantages of wind power?

What is biomass?

What are the advantages and disadvantages of biomass fuels?

What are the advantages and disadvantages of ethanol fuel?

What are the advantages and disadvantages of methanol fuel?

How does a geothermal heat pump work?

What are the advantages and disadvantages of geothermal energy?

What are the advantages and disadvantages of energy from hydrogen?