

Midterm Review 2011

- All topics on previous unit reviews (see website)
- Population Dynamics
 - Describe the pred/prey relationship.
 - Difference between stable, irruptive, cyclic...what would cause the differences?
 - Describe factors that increase the biotic potential (growth) of a population
 - Describe factors that increase the environmental resistance (decline) of a population
 - Describe R-Strategist vs. K-Strategist and application to survivorship curves. Where do humans fit in?
 - Draw a typical growth curve and label j curve, s curve, carrying capacity. What is CC?
 - Describe the human population growth dilemma: causes, effects.
 - Describe the 4 different age structure diagrams. Factors that lead to the different age structure diagrams?
 - Describe and explain the 4 phases of the demographic transition graph. Give examples of a country that represents each of the phases.
 - Population dynamic problems
- Mining
 - List different categories of resources provided by mining.
 - Are these resources renewable or nonrenewable?
 - Describe the different types of mining & the benefits and drawbacks to each: surface: open pit, plasser, strip, and contour. Subsurface: shafts & caves
 - What is overburden/spoil?
 - Solutions to reducing the effects of mining on the environment
 - Legislation: RCRA, CERCLA, SMCRA
 - What is a depletion curve? What are some methods to extend the depletion curve?
 - What role does the government play in aiding the stabilization of mining (in providing stability for the country)?
- Solid Waste
 - What is solid waste?
 - What is the main type of solid waste for homes and businesses (MSW)?
 - Describe the benefits and drawbacks to different methods of disposing of MSW
 - Give one example of an item that could be reduced, reused, recycled
 - Ways to reduce solid waste
 - Landfill cross-section
 - Hazardous waste: describe the four categories
 - How is a hazardous dump site different than a sanitary landfill?
- Food and Agriculture
 - Causes of World Hunger
 - Solutions to WH: benefits and drawbacks to each
 - Undernutrition vs. malnutrition
 - Undernutrition effects: deficiency and symptoms
 - Describe and list the benefits and drawbacks to different methods of agriculture: nomadic herding, subsistence, shifting (plantation), industrialized monoculture
 - Describe and list benefits of more sustainable agricultural practices: intercropping, polyvarietal, polycultural, agroforestry
 - What role does the government play in aiding the stabilization of farming (in providing stability for the country)?