EXAM SEVEN EXPECTATIONS

ENVIRONMENTAL SCIENCE EXAM SEVEN
"Conventional Energy"

STATE which fossil fuels are likely to last the longest and shortest
STATE the world's main energy source today
STATE the greatest reason for increased energy consumption worldwide (recently)
STATE the percentage of oil that most wells can extract in a reservoir
DEFINE fusion
DEFINE fission
DEFINE isotopes
DEFINE half-life
DEFINE work
DEFINE energy
DEFINE power
DEFINE megawatt, kilowatt
LIST fossil fuels (combustion of) that contribute to global warming
LIST compounds released from the combustion of coal
LIST the area(s) where it is believed that large oil deposits exist
LIST common products that use petrochemicals for their production
LIST environmental impacts of natural gas production
OUTLINE how different fossil fuels were formed (include oil, natural gas, methane and gas hydrates)
OUTLINE the role of a control rod in a nuclear reactor
OUTLINE anthracite coal
OUTLINE a nuclear meltdown
OUTLINE surface mining
OUTLINE breeder nuclear fission reactors
OUTLINE the switch from wood to coal as an energy source
OUTLINE secondary recovery techniques
OUTLINE oil shale and tar sands
ANALYZE pie graphs and line graphs
DESCRIBE a typical nuclear power plant
DESCRIBE the splitting an uranium atom in a reactor
DESCRIBE the decommissioning of nuclear power plants
DESCRIBE the pathway of electricity from the power plant to your TV and its efficiency at each step
COMPARE energy use between developed and developing countries
COMPARE high level and low level radioactive waste
COMPARE nuclear power to coal power and both to natural gas
COMPARE pressurized water reactors and boiling water reactors
COMPARE the locations of the most and least useful oil deposits
EXPLAIN the 55 mph speed limit
EXPLAIN the 1973 oil embargo
EXPLAIN how Denmark and Norway have a higher standard of living than Americans
EVALUATE the use nuclear power to generate electricity
EVALUATE nuclear fusion power
DISCUSS "peak oil"
DISCUSS the Carbon Capture and Storage (CCS) technology and use
DISCUSS the timeline of nuclear power use
DISCUSS Yucca Mountain, Nevada as a possible storage site for nuclear waste
SUGGEST the characteristics of storage site for high-level radioactive waste
SUGGEST a new fleet of cars for some hypothetical organization after EVALUATING the organization's needs