UNIT OF STUDY

Title: Intro to Global Environmental Picture Subject/Course: Environmental Science Length: 3 weeks Topic: Toward A Sustainable Future Grade: 11-12 Designer: D Wright	
UNIT GOALS AND EXPECTATIONS	
IMPORTANT CONCEPTS/UNDERSTANDINGS: Environmental issues are complex. Earth is a finite system. Environmentalism and environmental problems are not new. Science is a necessary component of environmental decision making. A healthy global economy depends upon a healthy global ecosystem.	ESSENTIAL QUESTIONS: Why do we need to study environmental issues? What are some environmental controversies? What processes in our society are sustainable? What are examples of sound science? What are examples of junk science?
STUDENT LEARNING EXPECTATIONS: NS.4.ES.1-Collect and analyze scientific data using appropriate mathematical calculations, figures and tables. SP.3.ES.13-Distinguish between developed and developing countries. SP.3.ES.10-Predict the long-term societal impact of specific health, population, resource, and environmental issues. SP.3.ES.9-Evaluate personal and societal benefits when examining health, population, resource, and environmental issues.	SP.3.ES.2-Investigate the relationships between human consumption of natural resources and the stewardship responsibility for reclamations including disposal of hazardous and non-hazardous waste NS.4.ES.3- Utilize technology to communicate research findings. NS.5.ES.2- Explain why scientists should work within ethical parameters.
SPECIFIC DECLARATIVE KNOWLEDGE – What I know Define sustainability, stewardship and sound science and recognize these as environmental strategies. Define ecosystem capital, globalization and public policy and politics and recognize these as integrative strategies. Identify and understand an individual's ecological footprint.	SPECIFIC PROCEDURAL KNOWLEDGE – What I need to do Make clear and unbiased observations. Make predictions according to a pattern. Identify correctly information found on graphs, tables and charts. Research skills will be used to gather information. Compare world summits held in 1992 to those held in 2002.
UNIT ASSESSMENTS (Include tasks related to Dimensions 3 and 4 and Bloom's Taxonomy)	
Discuss (in writing) the idea of a sustainable approach to the Earth's environment. Chapter Content Brainstorming (bookwalk)	
Traditional Assessments: Unit test. Written quizzes. Chapter Content Brainstorming Chapter outline Activity analysis	Other Evidence of Learning: Daily notebook entries. LPS Vocabulary strategy TI-83 lab "Is there a limit?"

ACTIVITIES AND LEARNING EXPERIENCES	Resources
Identify and define key words and vocabulary: (using LHS vocabulary format) Ecological footprint, habitat alteration, biodiversity, sustainability, stewardship, sound science, ecosystem capital, policy and politics, globalization, sustainable yields, sustainable development, development, economists, sociologists, ecologists, environmental racism, environmental science, scientific method, scientific community, goods and services Identify and discuss local environmental controversies. Make lists for solved or unsolved issues. List and discuss systems or processes that are sustainable in modern society. Give justification for your conclusion. List and discuss systems or processes that are not sustainable. Research to find the meaning of ecological footprint and compare this with carbon footprints. Justify a conclusion about the overall sustainability of our society. Students should relate examples of junk, as well as, sound science. Research and present information on individual ecological footprint using PowerPoint poster. Read and evaluate the story of environmental degradation on Easter Island. Water Properties lab TI-83/CBL lab- "Is there a limit?" Carbon/Ecological Footprint Research TI-83/CBL lab- "Dueling Sensors"	Environmental Science: Toward A Sustainable Future Media Center Internet Smartboard Power point Newspaper/Magazines Lab exercises TI-83 calculator w/ CBL

Career Connections
Politician Economist Sociologist Ecologist Lobbyist Environmentalist Environmental Engineer