Unit 7 Renewable Energy and Energy Alternatives

Content Area: **Science**
Course(s): **Environmental Science CP**
Time Period: **May**
Length: **0**
Status: **Published**

Transfer Skills

Enduring Understandings

The foods produced in the greatest amounts worldwide are grains, the seeds of grass plants

Overharvesting has reduced the populations of many organisms worldwide

Essential Questions

How can we use Earth's resources in a sustainable way?

How can we balance our growing demand for food with our need to protect the environment?

Content

Vocab:

Resource management, maximum sustainable yield, ecosystem based management, adaptive management, clear cutting, deforestation, monoculture, soil, parent material, bedrock, clay, silt, sand, loam, incropping, crop rotation, desertification, salinization

Skills

Explain the importance of managing specific renewable resources

Describe different resource management approaches

Describe the ecological and economical values of forest resources

Describe the costs and benefits of the different methods of timber harvesting

Discuss the current levels of deforestation in the US and in developing nations

Explain how logging is managed in the US

Explain how consumer demand is important to sustainable forestry

Describe what causes erosion, and how to prevent it

Explain how irrigation and pesticide can cause soil pollution

Discuss the beginnings of agriculture

Explain the importance of industrial agriculture and the green revolution

Explain why the worlds needs to grow more sustainable food

Resources

Standards

SCI.9-12.5.1.12	All students will understand that science is both a body of knowledge and an evidence-based, model-building enterprise that continually extends, refines, and revises knowledge. The four Science Practices strands encompass the knowledge and reasoning skills that students must acquire to be proficient in science.
SCI.9-12.5.1.12.B	Students master the conceptual, mathematical, physical, and computational tools that need to be applied when constructing and evaluating claims.
SCI.9-12.5.1.12.B.3	Revise predictions and explanations using evidence, and connect explanations/arguments to established scientific knowledge, models, and theories.
SCI.9-12.5.1.12.B.4	Develop quality controls to examine data sets and to examine evidence as a means of generating and reviewing explanations.
SCI.9-12.5.1.12.C	Scientific knowledge builds on itself over time.
SCI.9-12.5.1.12.C.1	Reflect on and revise understandings as new evidence emerges.
SCI.9-12.5.1.12.C.2	Use data representations and new models to revise predictions and explanations.