



Use of Natural Resources

<p>Unit Outcomes At the end of this unit, your student should be able to:</p>	<p>Key Vocabulary Terms to deepen the student’s understanding</p>
<ul style="list-style-type: none"> • Conclude that energy can be transformed and transferred • Deduce the three ways to obtain, transform and distribute energy • Verify that the environment is impacted by the way energy is obtained, transformed and distributed. • Determine why conservation is important for managing resources • Discuss consequences of mismanaging resources • Conclude that nonrenewable energy resources can be depleted 	<ul style="list-style-type: none"> ✓ Nuclear power ✓ Global warming ✓ Renewable resource ✓ Nonrenewable resource ✓ Inexhaustible resource ✓ Fossil fuel ✓ Geothermal energy ✓ Conservation ✓ Recycle ✓ Reduce ✓ Reuse
<p>Key Standards Addressed Connections to Common Core/NC Essential Standards</p>	<p>Where This Unit Fits Connections to prior and future learning</p>
<ul style="list-style-type: none"> • 8.P.2.1 Explain the environmental consequences of the various methods of obtaining, transforming and distributing energy • 8.P.2.2 Explain the implications of the depletion of renewable and nonrenewable energy resources and the importance of conservation 	<p>Coming into this unit, students should have a strong foundation in:</p> <ul style="list-style-type: none"> ✓ Recognizing the basic forms of energy (light, sound, heat, electrical and magnetic) as the ability to cause motion or create change <p>This unit builds to the following future skills and concepts:</p> <ul style="list-style-type: none"> ✓ Explaining the consequences of human activity on the lithosphere (such as mining, deforestation, agriculture, overgrazing, urbanization and land use) past and present ✓ Comparing the various methods humans use to acquire traditional energy sources (such as peat, coal, oil, natural gas, nuclear fission and wood) ✓ Explaining how human activity affect air quality ✓ Analyzing the impacts that human activities have on global climate change (such as burning hydrocarbons, greenhouse effect and deforestation) ✓ Evaluating alternative energy technologies for use in North Carolina ✓ Critiquing conventional and sustainable agriculture and aquaculture practices in terms of their environmental impacts ✓ Explaining the effects of uncontrolled population growth on the Earth’s resources ✓ Evaluating the concepts of “reduce, reuse, recycle” in terms of impact on natural resources



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<p style="text-align: center;">Additional Resources</p> <p style="text-align: center;">Materials to support understanding and enrichment</p>	<p style="text-align: center;">“Learning Checks”</p> <p style="text-align: center;">Questions Parents Can Use to Assess Understanding</p>
<ul style="list-style-type: none"> • CK12.org online textbook: Natural Resources • CK12.org online textbook: Natural Resource conservation, Conserving Natural Resources • Energy kids website: information on energy http://www.eia.gov/kids/index.cfm • Ecokids website: information on energy, water conservation, land use etc. http://www.ecokids.ca/pub/games_activities/index.cfm • Adventures in Energy: information on oil and natural gas http://www.adventuresinenergy.org/What-are-Oil-and-Natural-Gas/index.html • Discovery Ed video: Nonrenewable resources • Discovery Ed video: Renewable resources • Discovery Ed video: Problems associated with our dependence on Fossil Fuels 	<ul style="list-style-type: none"> ✓ How can the ways we obtain, transform and distribute energy affect the environment? ✓ What is the difference between a renewable and nonrenewable resource? ✓ Why is the conservation of energy important? ✓ What are the consequences of mismanaging our resources? ✓ What are the different types of energy that are renewable and nonrenewable? ✓ What are inexhaustible resources? What is an example of this type of resource? ✓ How can recycling, reducing and reusing help conserve resources? ✓ How does the use of different energy resources affect the environment and the economy?