

MAPPING GRADE 6 SCIENCE INSTRUCTION

Concept: Natural Resources and Public Policy

<p>PWC Objective: 6.9</p> <p>The student will investigate and understand <u>public policy decisions relating to the environment</u>. Key concepts include:</p> <ul style="list-style-type: none"> • management of renewable resources and nonrenewable resources (SOL 6.9 a-b) • the mitigation of land-use and environmental hazards through preventive measures (SOL 6.9c) • conservation policies, including consideration of costs and benefits (SOL 6.9d) 	
What Students Should Know (Critical Attributes)	What Students Should Be Able To Do (Essential Skills)
<p><u>Essential Questions:</u></p> <ul style="list-style-type: none"> • Why is it important that natural resources be managed? • What are some environmental issues we are currently debating? • How are renewable and nonrenewable resources managed? • Why must we consider the cost / benefit tradeoffs of environmental decisions? <p><u>Critical Attributes:</u></p> <p>People, as well as other living organisms, are dependent upon the availability of clean water and air and a healthy environment.</p> <p>6.9a-b Public policy decisions affect what we can do on Earth. Everyone is affected by and a part of public policy decisions.</p> <p>6.9a-b Modern society is dependent upon many finite resources including coal, oil, natural gas, and nuclear power.</p> <p>6.9a-b Many renewable and nonrenewable resources are managed by the private sector (private individuals and corporations).</p> <p>6.9c Conservation of resources and environmental protection begin with the individual.</p>	<ul style="list-style-type: none"> • Differentiate between renewable and nonrenewable resources.

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<p align="center">What Students Should Know (Critical Attributes)</p>	<p align="center">What Students Should Be Able To Do (Essential Skills)</p>
<p>6.9c Preventive measures, such as pollution prevention or thoughtfully planned and enforced land-use restrictions, can reduce the impact of potential problems in the future.</p>	<ul style="list-style-type: none"> Evaluate the impact of resource-use, waste management, and pollution prevention in the school and home environment.
<p>6.9d Pollution prevention and waste management are less costly than cleanup.</p>	
<p>6.9d If not carefully controlled, renewable and nonrenewable resources can be depleted or mismanaged, speeding up habitat destruction, air, land, and water pollution; acid rain; and species endangerment and/or extinction.</p>	
<p>6.9d Local, state, and federal governments have significant roles in managing and protecting resources. Regulations, incentives, and voluntary efforts help conserve resources and protect environmental quality.</p>	<ul style="list-style-type: none"> Describe the role of local and state conservation professionals in managing natural resources. These include wildlife protection; forestry and waste management; and air, water, and soil conservation.
<p>6.9d In a democratic society, citizens have a voice in shaping resource and environmental management policies. Individuals and groups can influence the way public and private resources are managed.</p>	
<p>6.9d Sustainable development (management of resources so they produce continuously) makes decisions about long-term use of the land and natural resources for maximum community benefit, for the longest time, with the least environmental damage.</p>	
<p>6.9d Use of renewable and nonrenewable resources must be considered in terms of their cost/benefit tradeoffs. Modern industry and technological advances have brought many benefits to humans and an improvement in our standard of living; however, there may be environmental costs we have to pay for these benefits.</p>	<ul style="list-style-type: none"> Analyze how resources are used and managed within the home, school, and community. Analyze resource-use options in everyday activities, and determine how personal choices have costs and benefits related to the generation of wastes.
<p>6.9d Many of the decisions we make that affect the environment are complex. Decision-making is not easy when people have differing points of view. Everyone must make some tradeoffs when public policy decisions are reached. Effective involvement includes a careful study of all sides of the issues, along with the ability to differentiate between honest, factual information and propaganda.</p>	<ul style="list-style-type: none"> Analyze reports, media articles, and other narrative materials related to waste management and resource use to determine various perspectives concerning the costs and benefits in real-life situations.