



Energy: The Pulse of Life

Science, Physical Science

AIT 1999

Science SOL 4.2, 4.3, 4.4, 4.5, 6.3, 6.4, 6.7, 6.8, 6.11,
BIO.3, BIO.9, CH.3, ES.7, ES.12, ES.13, LS.3, LS.6,
LS.11, LS.12, PH.4, PH.6, PH.8, PS.5, PS.6, PS.10, PS.11

9 10-minute programs for grades 7-12

One Year Tape and Keep Rights

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This dynamic series explores both basic science and applied technology concepts related to energy, including today's most pressing issues of energy use. It connects theory to real-life application within an entertaining, viewer-friendly format that features original songs by the pop group Moxy Fruvous

101. Energy Forms—Introduces the concept of energy, its early history, and a survey of its various forms. (8:55)
Science: 4.2, 4.3, 6.3, PS.6, PS.10, PS.11, PH.8

102. Energy Laws—Explains the principles of energy conservation and entropy (the First and Second Laws of Thermodynamics) and how they were uncovered. (9:52)
Science: 4.2, 4.3, 6.4, CH.3, PS.5, PH.6, PH.8

103. Saved by the Sun—Focuses on the ultimate energy source: the nuclear fusion that takes place in the sun. Details how solar energy is stored through photosynthesis and then consumed through respiration. (9:41)
Science: 4.4, 6.7, 6.8, LS.3, LS.6, PS.5, ES.13, BIO.3

104. Water, Wind, and Watts—Discusses how North Americans became the greatest energy

consumers in history. Outlines the evolution of energy technology through the ages. (9:51)
Science: 4.5, 6.3, 6.11, PS.6, PS.10, PH.4, PH.8

105. A Changing Environment—Surveys our major sources of energy and their respective environmental problems, including a detailed explanation of the green house effect. (8:42)
Science: 4.5, 6.3, 6.11, LS.11, LS.12, ES.7, ES.12, BIO.9

106. Some Brighter Ideas—Introduces new, more efficient ways to use energy, such as compact fluorescent bulbs, solar housing, heat pumps, and low-E windows. (8:53)
Science: 4.5, 6.8, 6.11, LS.12, ES.7

107. Some Smarter Choices—Further ways to conserve energy, this time on a public scale through better community planning to reduce automobile use and make

use of waste heat when electricity is generated thermally. (7:34)
Science: 4.5, 6.11, LS.12, ES.7, BIO.3

108. Renewable Sources—Introduces sources of electricity that are clean and renewable including biomass, wind, tidal, geothermal, and photovoltaics (PV). (8:07)
Science: 4.8, 6.3, 6.11, ES.7, PH.8

109. Hydrogen Hopes—Discusses hydrogen, which can be generated from any source of electricity and which, in turn, can be used to produce electricity through a fuel cell. (8:06)
Science: 6.11, ES.7, PH.8