



Solar Pizza Box Oven



<u>Performance Expectations</u>	<u>Connections Between EP&Cs, CCCs, and SEPS</u>	<u>Clarifications for DCIs</u>	Relevant EEI Units
<p>1-LS1-1 Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.</p> <p>4-PS3-2 Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.</p> <p>4-PS3-4 Apply scientific ideas to design, test, and refine a device that converts energy from one form to another.*</p> <p>4-ESS3-1 Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment.</p> <p>5-PS3-1 Use models to describe that that energy in animals' food (used for body repair, growth, motion, and to maintain body</p>	<p style="text-align: center;">Targeted Environmental Principles & Concept(s)</p> <p>Principle III: Natural Systems Change in Ways that People Benefit from and can Influence. Natural systems proceed through cycles that humans depend upon, benefit from, and can alter.</p> <p>Concept B. Human practices depend upon and benefit from the cycles and processes that operate within natural systems.</p> <hr/> <p style="text-align: center;">Targeted Crosscutting Concept(s)</p> <p>Patterns Energy and Matter Structure and Function</p> <hr/> <p style="text-align: center;">Targeted Science and Engineering Practice(s)</p> <p>Asking Questions and Defining Problems Developing and Using Models Planning and Carrying out Investigations</p>	<p style="text-align: center;">Targeted Disciplinary Core Idea(s)</p> <p>1-LS1-1 Structure and Function All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow.</p> <p>4-PS3-2 Definitions of Energy; Conservation of Energy and Energy Transfer Energy can be moved from place to place by moving objects or through sound, light, or electric currents; Energy is present whenever there are moving objects, sound, light, or heat. When objects collide, energy can be transferred from one object to another, thereby changing their motion. In such collisions, some energy is typically also transferred to the surrounding air; as a result, the air gets heated and sound is produced; Light also transfers energy from place to place.</p> <p>4-PS3-4 Conservation of Energy and Energy Transfer Energy can also be transferred from place to place by electric currents, which can then be used locally to produce motion, sound, heat, or light. The currents may have been produced to begin with by transforming the energy of motion into electrical</p>	<p>1: Surviving and Thriving; Finding Shelter; People and Places</p> <p>2: From Field to Table</p> <p>3: Living Things in Changing Environments</p> <p>4: The Flow of Energy through Ecosystems</p> <p>For Elementary EEI units K-5</p>

One Cool Earth (OCE) supports the integration of Next Generation Science Standards (NGSS) three dimensional learning and the Environmental Principles & Concepts (EP&Cs) in their lesson planning. In recognition of A Blueprint for Environmental Literacy and the California State Board of Education, OCE uses the *CA Science Framework*.

<p>warmth) was once energy from the sun.</p> <p>K-2-ETS1-2 Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.</p>	<p>Engage in Argument from Evidence</p>	<p>energy.</p> <p>4-ESS3-1 Natural Resources Energy and fuels that humans use are derived from natural sources, and their use affects the environment in multiple ways. Some resources are renewable over time, and others are not.</p> <p>5-PS3-1 Energy in Chemical Processes and Everyday Life The energy released [from] food was once energy from the sun that was captured by plants in the chemical process that forms plant matter (from air and water).</p> <p>K-2-ETS1-2 Developing Possible Solutions Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people.</p>	
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