



## Hidden Villa Environmental Education Science and Nature Videos Supporting Materials

### 129 – Digging Deep: Exploring the Compost Pile

Description: This video shows the cycle of how worms turn scrap food into soil. It can be used for NEXT GENERATION SCIENCE STANDARD 5-LS2-1

#### **5-LS2-1 Ecosystems: Interactions, Energy, and Dynamics**

Students who demonstrate understanding can: Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

<p><b>Science and Engineering Practices</b> <b>Developing and Using Models</b> Modeling in 3-5 builds on K-2 models and progresses to building and revising simple models and using models to represent events and design solutions. Develop a model to describe phenomena.</p>	<p><b>Disciplinary Core Ideas</b> <b>LS2.A: Interdependent Relationships in Ecosystems</b> The food of almost any kind of animal can be traced back to plants. Organisms are related in food webs in which some animals eat plants for food or other animals eat the animals that eat plants. Some organisms, such as fungi and bacteria, break down dead organisms (both plants or plant parts and animals) and therefore operate as “decomposers.” Decomposition eventually restores (recycles) some materials back to the soil. Organisms can survive only in environments in which their particular needs are met. A healthy ecosystem is one in which multiple species of different types are each able to meet their needs in a relatively stable web of life. Newly introduced species can damage the balance of an ecosystem. <b>LS2.B: Cycles of Matter and Energy Transfer in Ecosystems</b> Matter cycles between the air and soil and among plants, animals and microbes as these organisms live and die. Organisms obtain gases, and water, from the environment, and release waste matter (gas, liquid, or solid) back into the environment.</p>	<p><b>Crosscutting Concepts</b> <b>Systems and System Models</b> A system can be described in terms of its components and their interactions.</p>
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Question on video:

- What is transfer of energy?

Supplemental Questions:

- What else is transferred along with energy when plant waste and manure are transferred into soil by worms? (nutrients)
- Create a food chain beginning with the components covered in this video and concluding with a secondary consumer. Be sure to include a producer and a primary consumer.
- How do these food chains combine into a food web?

Other related videos

- 110 – How to Keep Plants Healthy
- 111 – How Seeds Travel
- 112 – Let’s Play with Plants
- 120 – Seed Dispersal

Hidden Villa is a 1600 acre wilderness and organic farm located in Los Altos Hills, California.  
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