

## THE STANDARD

# The Sun's Energy

*Use models to describe that energy in animals' food (used for body repair, growth, and motion and to maintain body warmth) was once energy from the sun.*

## DCI

DISCIPLINARY  
CORE IDEA

### PS3.D · 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)."*

This standard is really one connection traced backward. A 5th grader follows the energy in a meal all the way to its source. The energy your body uses to run, grow, heal a scrape, and stay warm came from the food you ate. That food came from a plant, or from an animal that ate plants. And the plant captured that energy from sunlight. So a kid building a flow chart from 'sun' to 'plant' to 'animal' to 'me' is doing all three dimensions at once. **They show the core idea (food energy traces back to the sun), use the practice (building a model to describe it), and apply the crosscutting lens (energy transferring from one thing to the next).**

## SEP

SCIENCE &  
ENGINEERING  
PRACTICE

### Developing and Using Models

*"Use models to describe phenomena."*

5th graders aren't writing an essay here. They're building a model, a flow chart or labeled diagram, that shows the path energy takes. The model has to actually describe what's happening: sun feeds plant, plant feeds animal, food fuels the body. A good model isn't decoration. **Someone should be able to read it and follow the energy.**

## CCC

CROSSCUTTING  
CONCEPT

### Energy and Matter

*"Energy can be transferred in various ways and between objects."*

Here's the big idea a 5th grader walks out with: the energy never gets made and never disappears, it just keeps getting handed off. Sunlight is captured by a plant. A rabbit eats the plant and takes the energy. A hawk eats the rabbit. At every step, the same energy transfers to the next living thing. **Your lunch is just the last handoff in a long chain.**