

Education Standards covered by your lesson

Note: The Massachusetts Draft Revised Science and Technology/Engineering Standards, dated December 2013, correspond directly with the NGSS performance standards and disciplinary core ideas for the concepts covered in this lesson.

NGSS Performance Standards

- HS. Matter and Energy in Organisms and Ecosystems
 - HS-LS1-5: Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy
 - HS-LS1-7: Use a model to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy.
 - HS-LS2-4: Use mathematical representations to support claims for the cycling of matter and flow of energy among organisms in an ecosystem.
- HS. Interdependent Relationships in Ecosystems
 - HS-LS2-7: Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.

NGSS Disciplinary Core Ideas

- LS1.C: Organization for Matter and Energy Flow in Organisms
- LS2.B: Cycles of Matter and Energy Transfer in Ecosystems
- PS3.D: Energy in Chemical Processes
- ETS1.B: Developing Possible solutions