

# What is Energy?

Everything in the universe is either composed of matter or energy. Remember, we learned that matter is anything that has mass and takes up space. For example, pizza is matter because it occupies space and has mass. But, what is energy?

Energy is everywhere! Everytime a bolt of lightning strikes, nature is showing us some of its energy. Water rushing over Niagara Falls is another demonstration of energy. However, not all displays of energy are as dramatic. A stone rolling down a hill, a star shining in space, a leaf blowing in the wind, and ice melting in a pond are also examples of energy. Our universe is rich in energy. But it is hard to say just what energy *really* is. We do know, however, what **energy** does—it provides us with the ability to do work or cause change. Almost all of the changes you see in the world are the result of energy.

Energy: Energy provides us the ability to  
do work or cause change

## The Pizza Question

Do you think that the heat from a pizza is matter? What about calories from eating a pizza? If not, then what are they? Explain your thinking.



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