

# Putting the Pieces Together

Albert shrugged when his teachers glared,  
And to reject Isaac Newton he wasn't scared:  
"Energy and mass are the same.  
I just need a catchy name;  
I'll call it . . .  $E = mc^2$ !"

## What's the Big Idea?

It's almost impossible to solve a problem alone. Even brilliant scientists, like Albert Einstein, are always building on the ideas of others. For example, you may have heard of the famous equation  $E = mc^2$ . Written in 1905 by Einstein, this short equation represents a revolutionary idea: Energy and mass are different forms of the same thing and each can be converted into the other. Einstein did not figure out everything behind  $E = mc^2$  himself. He built upon the work of many other scientists. Scientists have confirmed Einstein's equation countless times since its creation and continue researching its implications today. You can read about some of these women and men in the resources listed at right.

### Now Check This Out!

#### **Lise Meitner: Discoverer of Nuclear Fission**

by Rachel Stiffler Barron.  
Morgan Reynolds Publishing, 2000.  
*Explore Meitner's life and work, including her discovery of nuclear fission.*

#### **Two-Fisted Science: Stories about Scientists**

by Jim Ottaviani.  
G.T. Labs, 2001.  
*Explore, in graphic-novel format, stories about Einstein, Feynman, Oppenheimer, Bohr, and others.*

NOVA—Einstein's Big Idea

#### **[www.pbs.org/nova/einstein](http://www.pbs.org/nova/einstein)**

*Get to know the scientists before Einstein who helped pave the way to our modern understanding of energy, mass, and the speed of light (Ancestors of  $E = mc^2$ ).*