

The Energy That Made Everything Happen



Mira and Jay walked into science class and saw a table full of strange objects. There was a flashlight, a toy car, a rubber band, a small speaker, a banana, a battery, and a cup of warm water.

Jay grinned. 'Is this a science mystery?'

Ms. Carter smiled. 'Yes. Today's mystery is: what makes things happen?'



Energy Makes Things Happen



Mira picked up the toy car and pushed it across the table.

‘It moved because I pushed it,’ she said.

‘Right,’ said Ms. Carter. ‘Your body used energy to make the car move.’

Jay turned on the flashlight. ‘And this uses energy to make light.’

‘Exactly,’ said Ms. Carter. ‘Energy is the ability to do work or cause change.’



Batteries and Bananas



Jay picked up the battery. 'This battery stores chemical energy,' he said.

Ms. Carter nodded. 'When a battery is connected to a device, chemical energy changes into electrical energy.'

Mira held up the banana. 'Food stores chemical energy too. Your body changes it into movement, warmth, and thinking power.'



Stored Energy and Changing Forms



Ms. Carter stretched a rubber band. ‘This has stored energy when it is stretched,’ she explained.

Then she held a book high above the table. ‘This book has gravitational potential energy because it is up high. If I let it fall, that stored energy changes into motion energy.’

‘So energy can change forms!’ Jay said.

‘Exactly,’ said Ms. Carter.



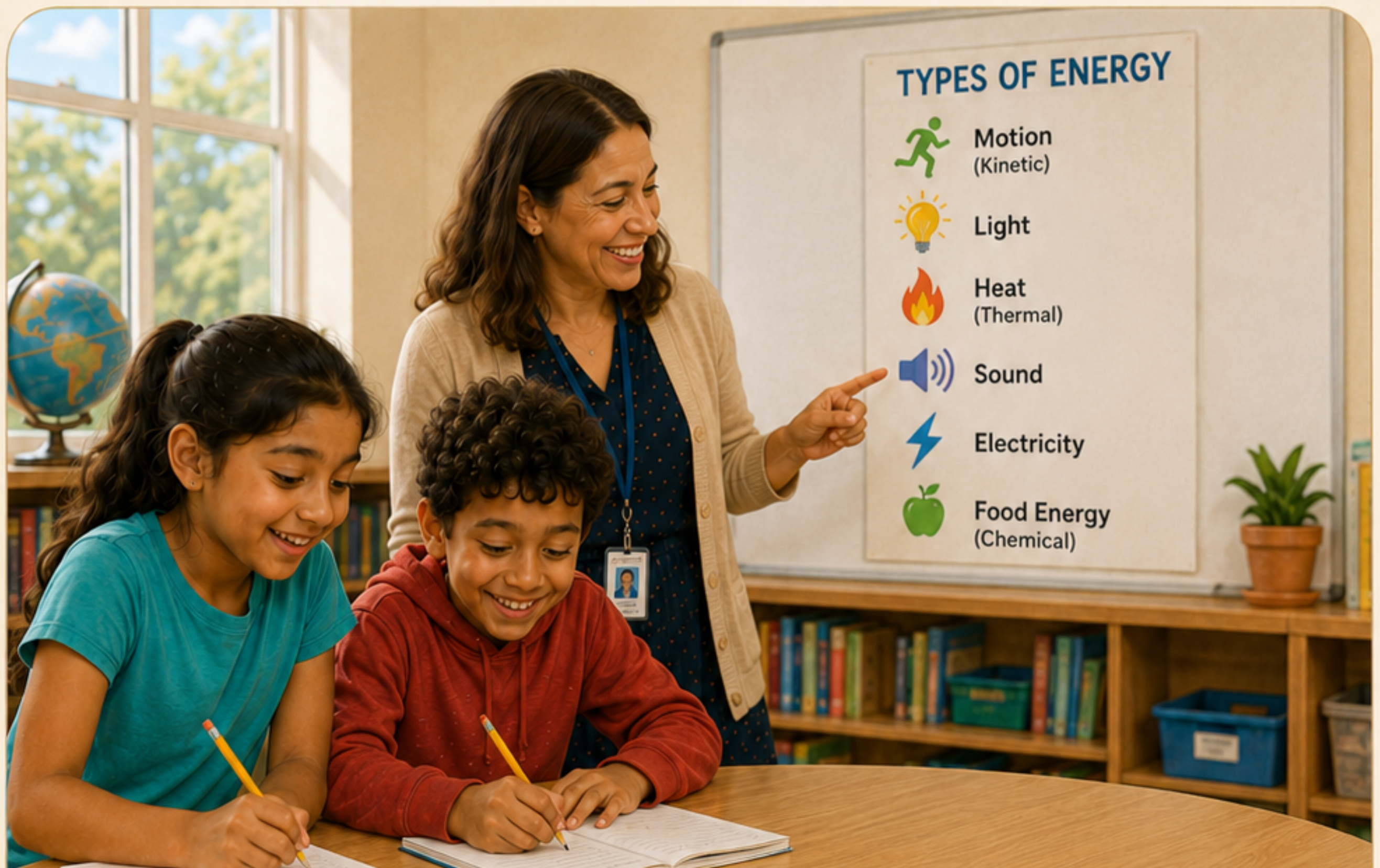
Heat and Sound All Around



Ms. Carter pointed to the warm water and the bright window.
‘The Sun gives light and heat energy,’ she said.
‘Warm things have thermal energy.’
Then she played music from the speaker.
‘That is sound energy,’ she said.
‘Sound travels as vibrations.’
Mira touched the speaker and felt it buzz.
‘It’s vibrating!’



Science Element



Energy is the ability to do work or cause change. It can make things move, warm up, glow, make sound, or change form.

Types of energy include motion, light, thermal, sound, electrical, chemical, stored energy, and gravitational potential energy.

Energy can change form. A flashlight changes chemical energy in the battery into electrical energy, then into light energy and some heat energy.

Food energy can become movement and heat. Energy is everywhere - it makes things happen!

