

Electrical Circuits

Kinds of Energy

Correlation

Fountas & Pinnell	Q	
DRA	40	
Estimated Lexile Measure	700	

Written under funding from Monroe 2–Orleans
BOCES by:

Kathy Arminio, Director

Antionietta Quinn, Resource Teacher

Sue Witter, Reading Specialist

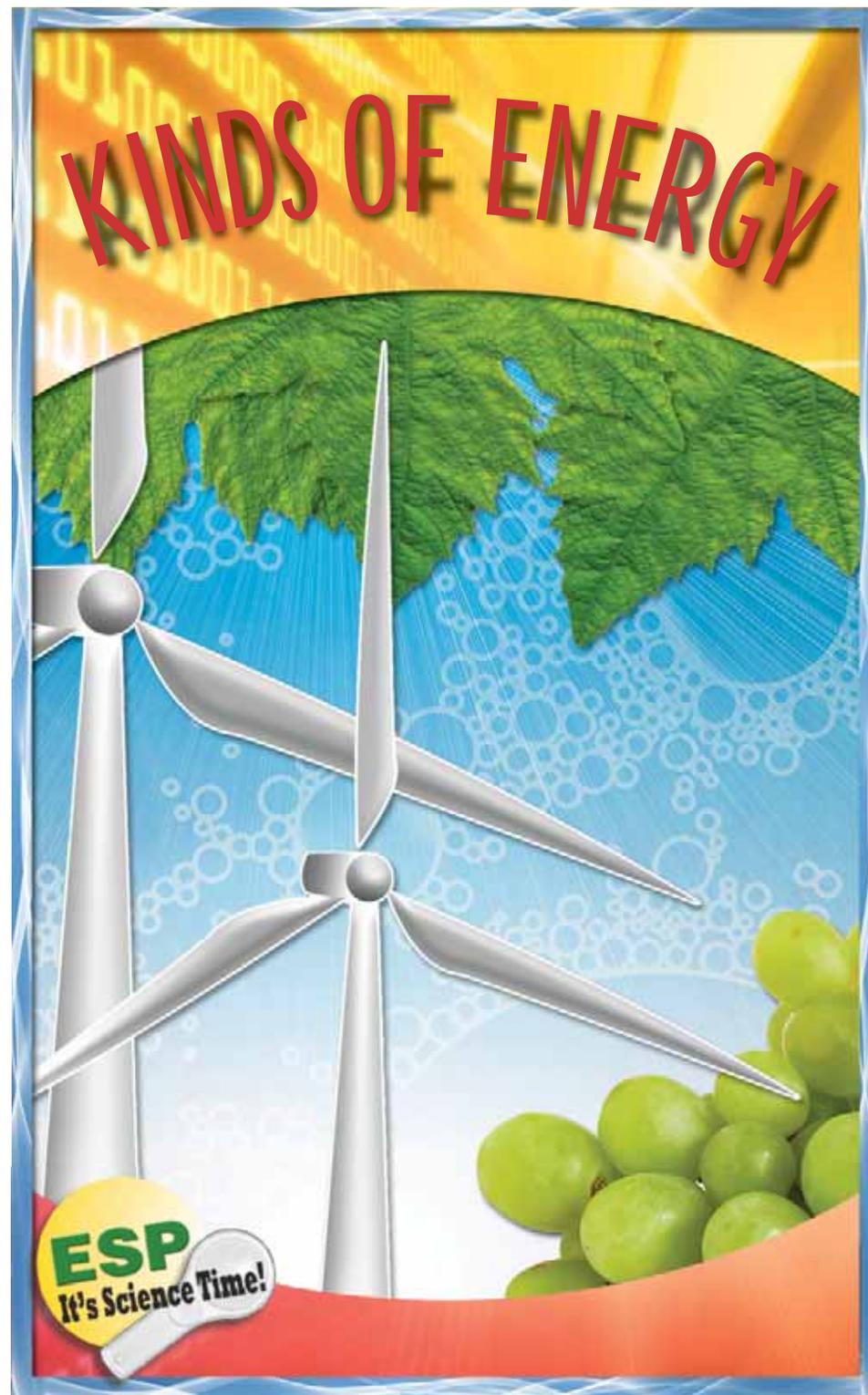
Designed and Printed by the BOCES 2 Printing
and Graphics Services.

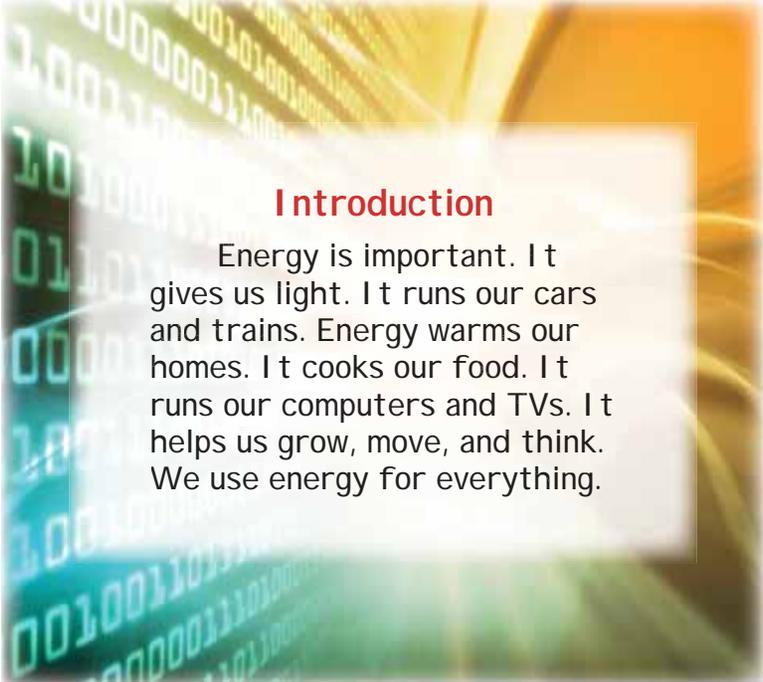
10/13

Copyright 2010 by the Board of Cooperative Educational Services for the Second Supervisory District of Monroe and Orleans Counties, Elementary Science Program. All rights reserved. This publication may only be reproduced for one-time classroom use. No part of this publication may be stored in a retrieval system, or transmitted or reproduced, in any form by any means, electronic, mechanical photocopying, recording, or otherwise, without the prior written permission of Monroe 2–Orleans BOCES, Elementary Science Program.



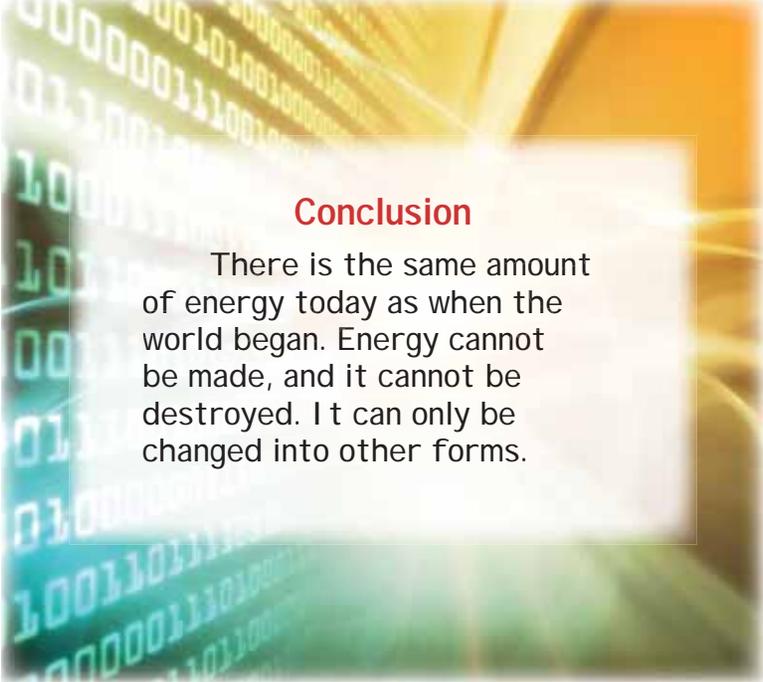
**Elementary
Science Program**
www.espsciencetime.org





Introduction

Energy is important. It gives us light. It runs our cars and trains. Energy warms our homes. It cooks our food. It runs our computers and TVs. It helps us grow, move, and think. We use energy for everything.



Conclusion

There is the same amount of energy today as when the world began. Energy cannot be made, and it cannot be destroyed. It can only be changed into other forms.



Changing Energy

Plants use energy from the sun. Plants change the light from the sun into chemical energy. They store the chemical energy as food. They use the food to grow.



Animals cannot make their own food. They need to get their energy from eating plants or other animals. Your body uses the food you have eaten to live and grow.



Many things change electrical energy into other forms. A light bulb changes electrical energy to light and heat. A toaster changes electrical energy into heat and light. A television changes electrical energy into light and sound. A radio changes electrical energy to sound.



What is Energy?

Energy is the ability to do work. Energy is found in many forms. There is:



Sound Energy



Light Energy



Heat Energy

Electrical Energy



Chemical Energy



Mechanical Energy



Sound Energy

Sound is a form of energy we can hear. Sounds are made by things that vibrate or move back and forth. A drum vibrates when it is hit. The vibrations move through the air. When they get to your ear, we can hear them. Sound waves can move through the air. Sound also moves through solids and liquids.



Mechanical Energy

Mechanical energy is the energy of motion. It is used to move parts of a machine. It is also used when people move. Mechanical energy puts a force on another object. The force makes the object move or change. An example of mechanical energy is the wind turning the blades of a windmill.



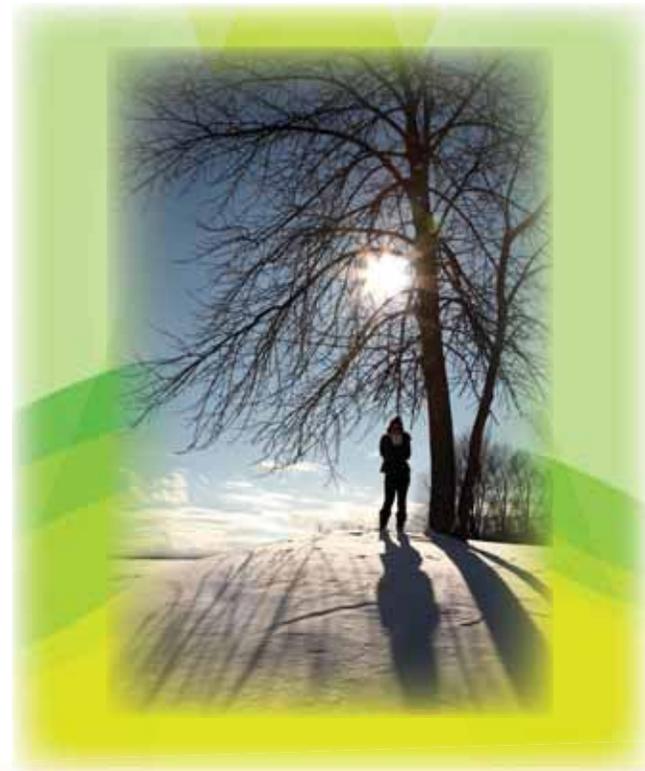
Chemical Energy

Chemical energy is stored in objects. A chemical change happens when materials mix to form something new. This change gives off chemical energy. When we use batteries, chemical changes happen inside the battery. The chemical change makes electricity.



Light Energy

Light is a form of energy we can see. The sun gives off light. Light bulbs and candles also give off light. Light passes through things that are clear like a window. It does not go through things that are opaque. We cannot see through things that are opaque. Opaque objects form shadows.



~~~~~ Heat Energy ~~~~~

Heat is a form of energy we can feel. We use it to warm our homes. We use it to cook our food. When heat is added to an object, its temperature rises. Heat energy always moves from warm places to cool places. Hold an ice cube in your hand. Heat energy will move from your hand to the ice. This makes your hand feel cold. It makes the ice cube melt.



⚡ Electrical Energy ⚡

Electricity is the flow of electrical power or charge. It is a form of energy we use everyday. Current is the flow of electricity in a wire. It can be used to light a bulb. The electricity causes the filament in the bulb to heat and glow.

