

K⚡LOWATT KITCHEN

MENU





Lorraine Quiche is about to open her brand-new restaurant, Fluffy's Spaghetti (named after her cat, Spaghetti), but the lights won't come on. In fact, there's no electricity

at all. And what's worse, the famed restaurant critic **Eggs Benedict Arnold** is due to arrive any minute. A bad review from him and her restaurant is as good as ruined. Luckily she has friends like her head chef **Chuck Wagon**, sanitation engineer **Horace Flyman** and zookeeper **Adam Grizzly**. They teach her all about where electricity comes from, how we measure it and ways we can all be more energy efficient. But will she learn enough about conservation to keep the restaurant running? And will Fluffy's Spaghetti earn a good review from Eggs Benedict Arnold?

Educational Concepts

- How to measure energy use
- How energy is wasted
- How we conserve energy
- What renewable resources are

WORDS TO KNOW

Aerator	A small attachment on a faucet to save water in kitchens and bathrooms
Conserve	To save or use wisely
Efficient	Producing very little waste
Electricity	A useful source of energy used in many ways
Energy	The ability to do work and the force that makes things change
Energy-Efficient Showerhead	A showerhead that saves water and energy
Kilowatt	One thousand watts of electricity
Kilowatt-Hour	Using 1,000 watts of electricity for one hour
Resource	Something we use to make electricity, like coal, oil, natural gas, water, solar power and wind
Waste	To use more than necessary
Watt	A unit of electricity

Eggs Benedict Arnold



Lorraine Quiche



Chuck Wagon



Adam Grizzly



Horace Flyman





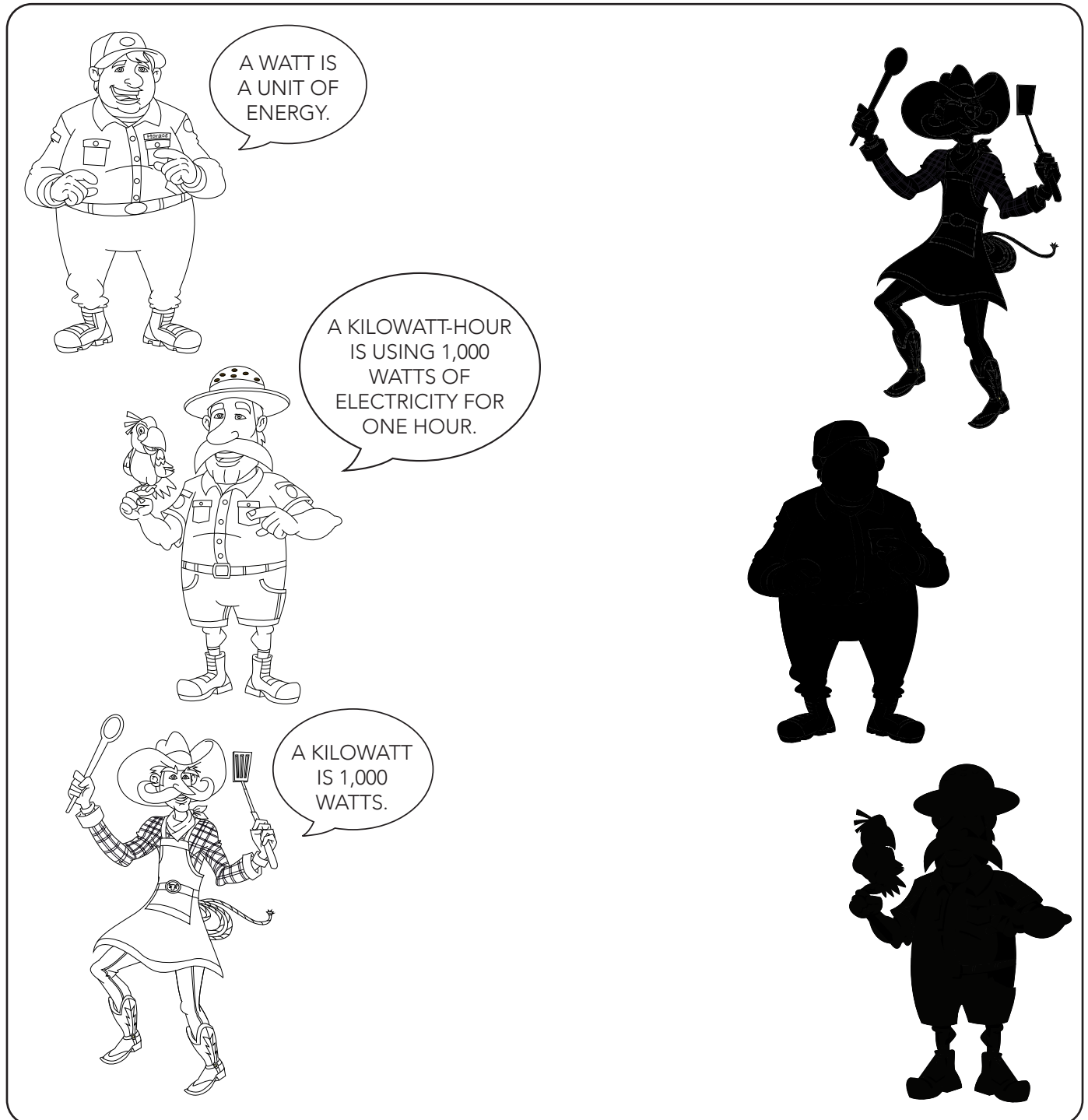
COLOR AND SHARE

Color the poster to share an important message about energy efficiency.
Hang it where friends and family will see it.



MESSAGE MATCH

Can you tell who's saying each energy conservation tip?
Draw a line from the character on the left to the correct shadow on the right.



A WATT IS
A UNIT OF
ENERGY.

A KILOWATT-HOUR
IS USING 1,000
WATTS OF
ELECTRICITY FOR
ONE HOUR.

A KILOWATT
IS 1,000
WATTS.



SCRAMBLED EGGS

Eggs Benedict Arnold has scrambled Lorraine's message. Unscramble the letters and fill in the spaces below to fix it. Use the numbers if you need help, and then read the message out loud.



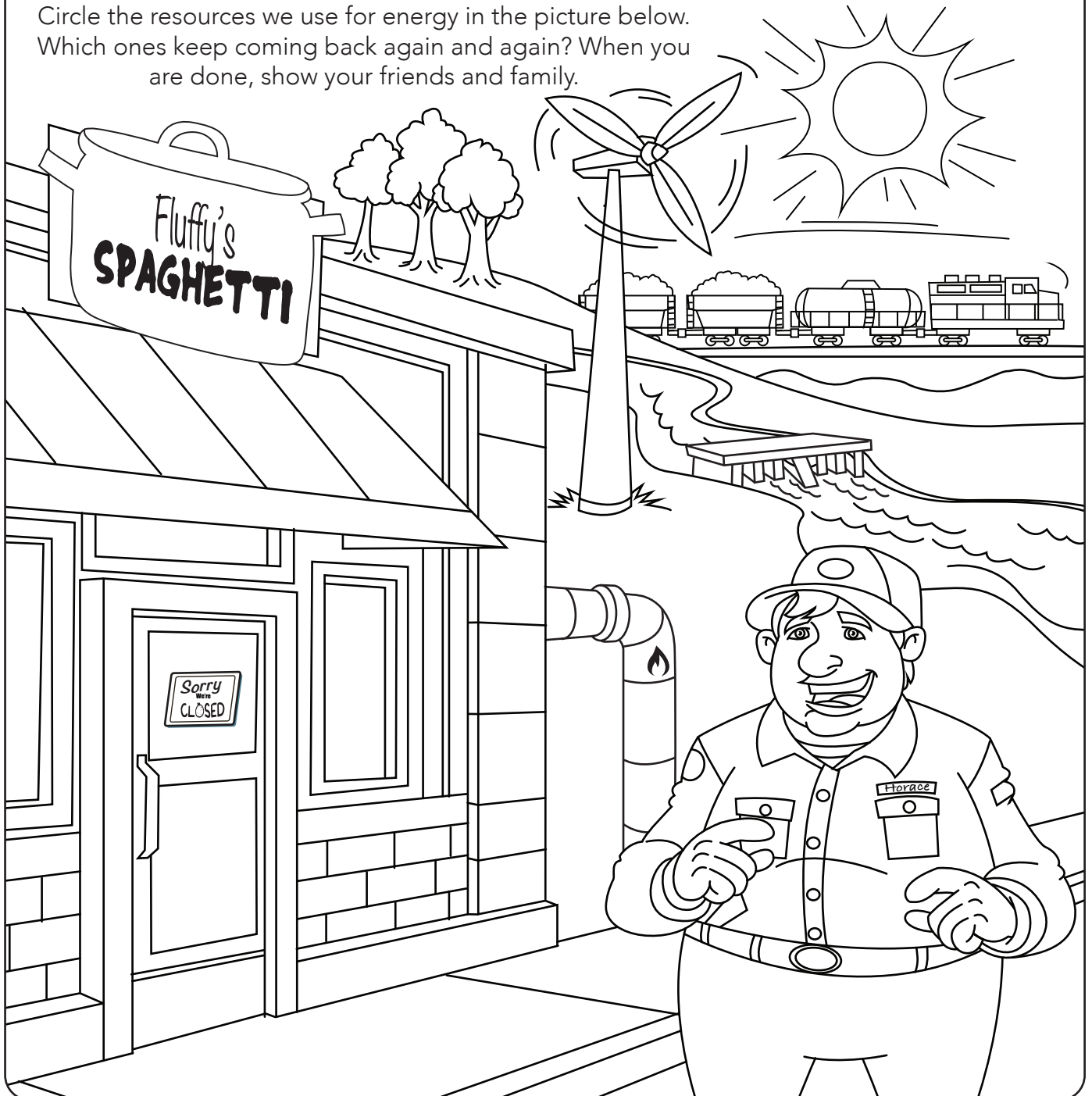
A watt is a unit of

_____ .
1 2 3 4 5 6

CIRCLE THE

RESOURCES

Circle the resources we use for energy in the picture below.
Which ones keep coming back again and again? When you
are done, show your friends and family.





MAKE YOUR OWN NEWSPAPER. Write a headline under the *KILOWATT NEWS* masthead. Next, draw a picture in the box and color it. Finally, think about everything you learned about energy and write a story using at least five of the vocabulary words.

* Younger students can write a simple story about the show.



KILOWATT NEWS

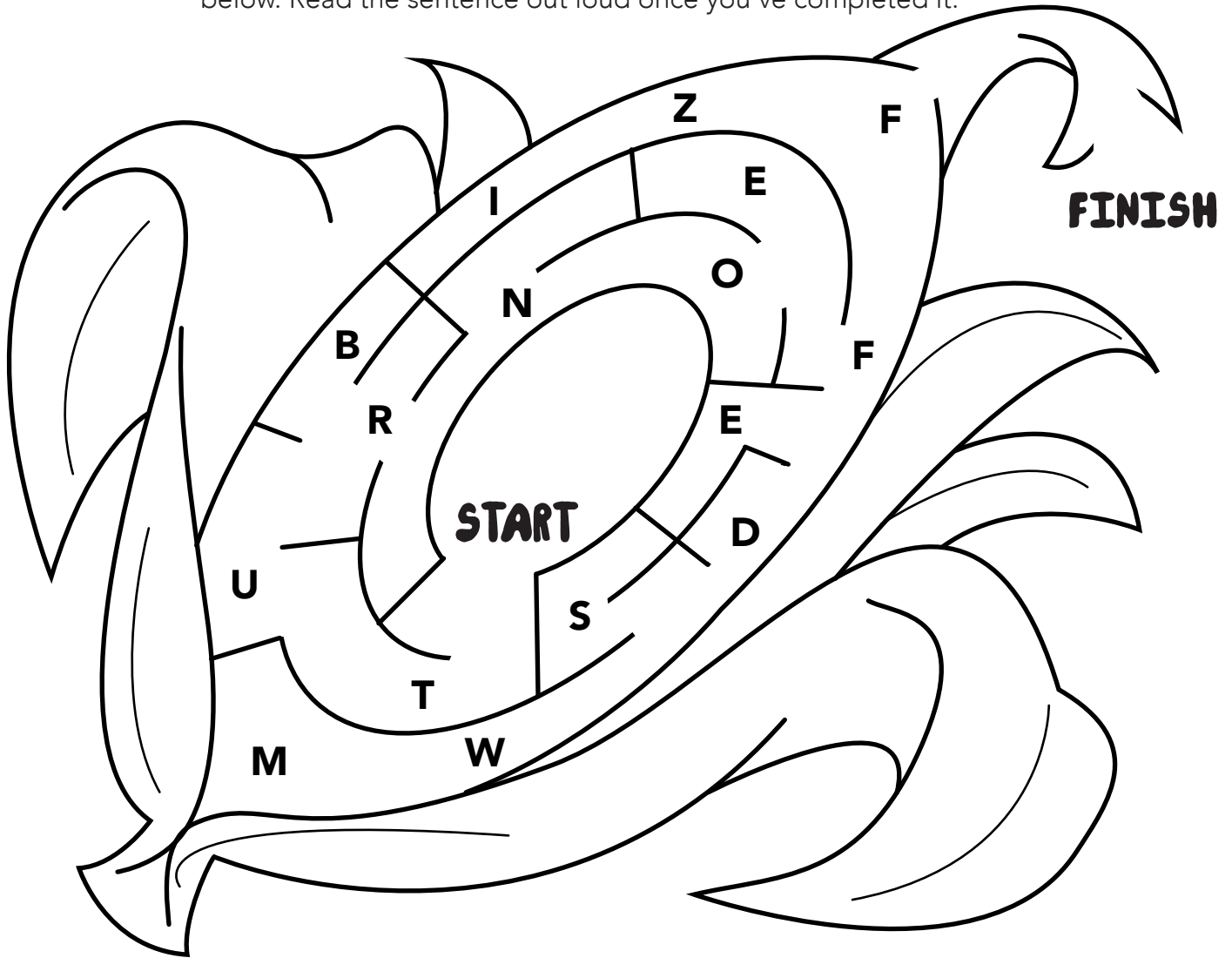


CONSERVE
EFFICIENT
ELECTRICITY
ENERGY
KILOWATT
RESOURCE
WASTE



A MAIZE MAZE

Lorraine uses lots of fresh vegetables in her restaurant, including corn, or "maize."
Find your way through the "maize" and write the letters in the order they appear on the lines below. Read the sentence out loud once you've completed it.



lights when you leave a room.



CHUCK WAGON'S

WORD FIND

You and your friends can find and circle all of the words from the list below. Do you remember what the words mean? Review their meanings on the inside front cover.



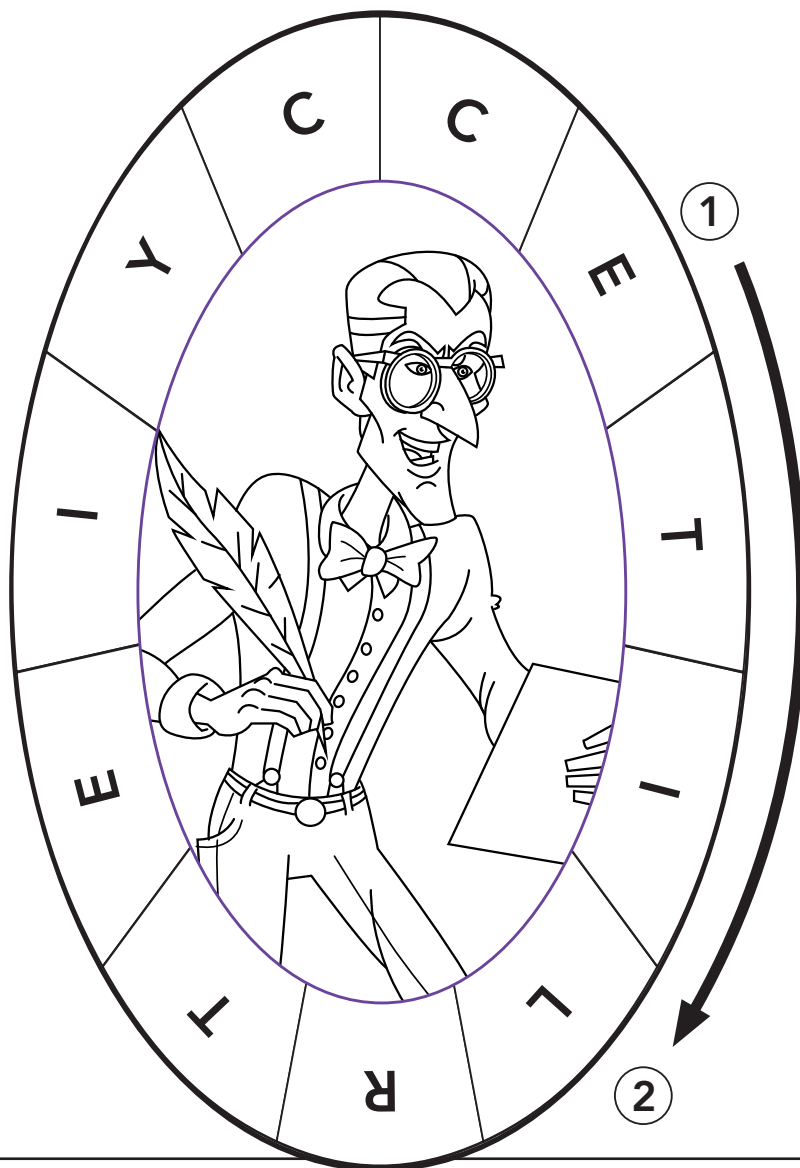
F	R	Q	H	F	E	W	E	V	P	O	Q	P	Y	P
Z	M	E	Q	K	L	T	E	P	I	L	W	A	W	B
C	N	Q	M	F	E	X	X	A	E	L	G	L	L	U
K	E	F	F	I	C	I	E	N	T	F	A	R	M	D
Z	F	W	A	S	T	E	W	X	E	I	Y	M	K	W
J	J	J	F	P	R	E	S	O	U	R	C	E	I	M
F	Q	Y	C	J	I	W	A	T	T	X	L	H	L	P
U	W	Q	N	Y	C	O	J	T	V	C	N	L	O	R
Q	T	N	Q	Z	I	W	I	T	K	M	Q	G	W	A
E	M	S	Q	V	T	S	A	B	A	D	P	O	A	A
N	D	L	G	F	Y	W	O	I	Y	M	U	E	T	R
E	T	T	H	G	X	I	P	I	D	W	N	O	T	W
R	R	C	V	O	X	N	X	N	Z	P	B	B	F	P
G	N	C	O	N	S	E	R	V	E	W	A	G	C	C
Y	J	E	Z	R	B	C	A	E	R	A	T	O	R	C

- | | | |
|-----------|-------------|----------|
| AERATOR | ELECTRICITY | RESOURCE |
| CONSERVE | ENERGY | WATT |
| EFFICIENT | KILOWATT | WASTE |



A MESSAGE FROM EGGS BENEDICT ARNOLD

Go around the wheel writing down every third letter to learn about one form of energy. The first two letters are already done for you. Can you think of any others?



EL _____

1 2

is a form of energy that runs our appliances.



ADAM'S

MATH MENAGERIE

Do the math and fill in the spaces below to discover a phrase to help you save energy.
Read the message out loud once you've completed it.

$15 - 7 =$ O

$24 + 17 =$ S

$1 \times 1 =$ A

$16 \div 4 =$ L

$18 - 6 =$ T

$10 \times 7 =$ V

$49 \div 7 =$ W

$12 \times 3 =$ E



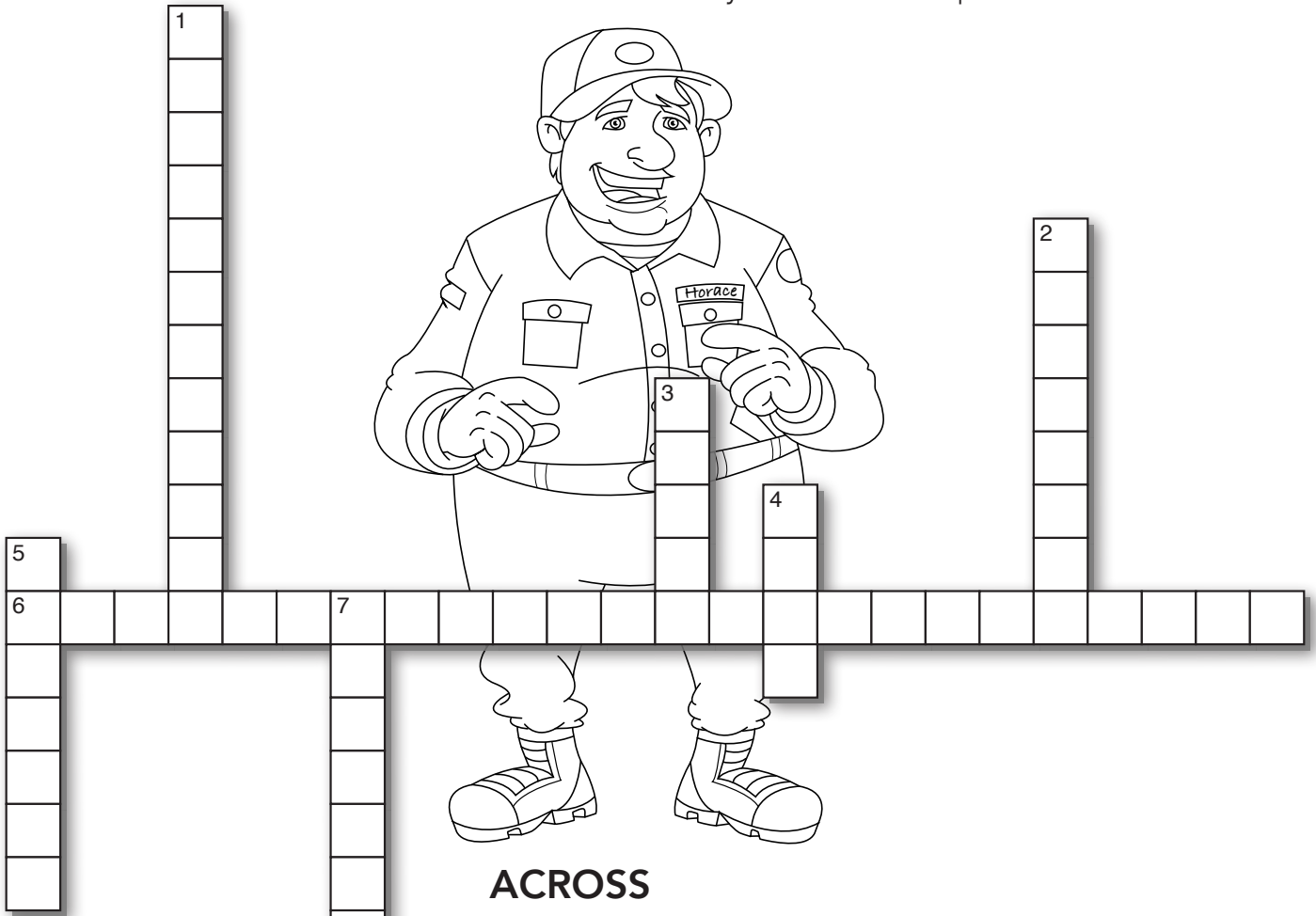
41 1 70 36 1 7 1 12 12

41 1 70 36 1 4 8 12



CROSSWORD

Find the answer for each clue and write it in the correct space.
Look at the inside front cover if you need some tips.



ACROSS

6. A lightbulb that uses less energy than a regular one

DOWN

- 1. Using 1,000 watts of electricity for one hour
- 2. One thousand watts
- 3. To use more than necessary
- 4. A unit of energy
- 5. A small attachment on a faucet to save water in kitchens and bathrooms
- 7. Producing very little waste

- AERATOR
- ENERGY-EFFICIENT LIGHTBULB
- EFFICIENT
- KILOWATT
- KILOWATT-HOUR
- WASTE
- WATT

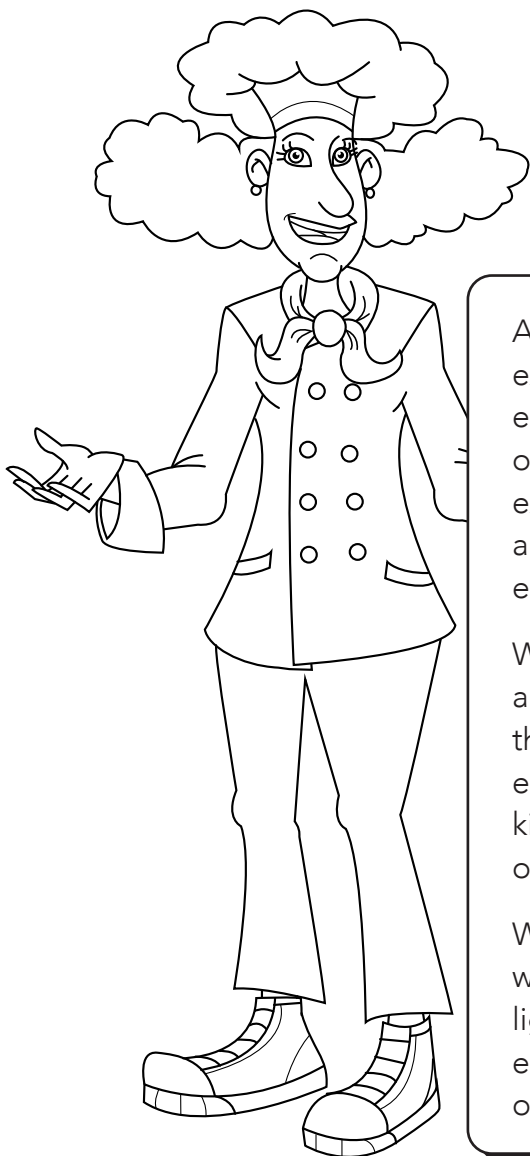


READ WITH

LORRAINE

Gather your friends, read the paragraphs and answer the True/False questions.

EXTRA CREDIT Read the article to someone else. Quiz them by asking the True/False questions.



A resource is something we use. Coal and natural gas are examples of the non-renewable resources we use to make electricity at power plants. Non-renewable resources will run out eventually. Solar power, wind and hydroelectricity are examples of renewable resources that keep coming back again and again. If we waste resources, we may not have enough electricity to power all of the things we need.

We use electricity to light our homes, charge our cellphones, and run our TVs, computers, refrigerators and many other things. We measure energy, like electricity, with a unit of energy called a watt. A kilowatt is equal to 1,000 watts. A kilowatt-hour is equal to using 1,000 watts of electricity for one hour.

We can save resources each time we turn off the lights when we aren't using them and by switching to energy-efficient lightbulbs. We all can save water and energy by using energy-efficient showerheads and installing aerators on our kitchen and bathroom faucets.

- T / F 1. A resource is something we don't use. T / F 4. Energy-efficient lightbulbs save energy.
- T / F 2. We should turn off the lights when we aren't using them. T / F 5. A kilowatt is equal to 500 watts.
- T / F 3. Solar power is an example of a renewable resource.



TAKE HOME FAMILY ACTIVITY

HOME AUDIT



Get together with your family and tell them about the things you learned about saving energy. Then post this page in a room and have each person make a mark each time they turn off a light, computer, TV or electric appliance when they've finished using it. You will be surprised how much electricity your family is using. Remember:

SAVE A WATT, SAVE A LOT!

Make a mark each time a light, computer, TV or electric appliance is turned off.

MONDAY	
TUESDAY	
WEDNESDAY	
THURSDAY	
FRIDAY	
SATURDAY	
SUNDAY	

TOTAL

HEY PARENTS, STUDENTS AND TEACHERS

GO TO: **NTC** **Playworks.com**

After enjoying the livestream, you and your child can find more fun learning activities on this topic and many more at www.NTCplayworks.com.



Here's How:

1. Go to NTCplayworks.com
2. Select your state and program
3. Enjoy the digital games, interactive activities, e-books and more



Come in
We're
OPEN

