# Section 2018 Sect

**Resource & Activity Book** 

THE

# Marie Curie

Fun and Engaging • Curriculum Extension Reinforces Learning • Skill Level Activities

# **Parent and Teacher Guide**

Studies have proven learning is enhanced through the use of several senses. A recent study shows that we retain 10 percent of what we see, 20 percent of what we hear, and 50 percent of what we see and hear. But when we see, hear and do, we retain 90 percent of the information. (Lisa Marie Nelson, Ph.D., Author "The Healthy Family Handbook").

The purpose of this Resource & Activity Book is to help children learn and retain the story theme and principles in a fun and educational way. Your children will love coloring pages, solving puzzles, matching games, completing word searches, and much more! Each Resource & Activity Book also features challenging questions and activities for children from preschool through middle school. And in the rare case you don't know an answer, there's an answer key in the back!

### LEVEL OF DIFFICULTY

The activities in this book are designed in three levels of difficulty designated by symbols. The activities with one symbol are geared towards younger children while the activities with two and three symbols become increasingly challenging for older children.



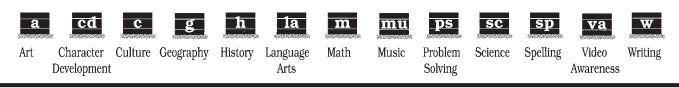
Level Two Intermediate



Advanced

### CURRICULUM RELATED

These educational activities are related to various educational discipline such as social studies (geography, history, culture), language arts (spelling, creative writing, grammar, literature), math (simple equations), and science. There are also activities for character development, video awareness, problem solving, music, and art. The subject codes below are for your convenience.



#### PERMISSION TO REPRODUCE

This Resource & Activity Book contains proprietary information, which is protected by copyright. All rights are reserved. However, any part of this book may be reproduced for personal or classroom use as long as it is not sold. Such permission does not include the storage of any part of this publication in a retrieval system or the transmission of such, in any form, or by any means, electronic, mechanical, recording, etc., without prior written permission of the publisher. This permission applies only to the printed material in this Resource & Activity Book and does not extend to any audio or video production released or distributed by NEST Family Entertainment<sup>™</sup>. For additional certificates or Resource & Activity Books, contact: NEST Family Entertainment<sup>™</sup>, LLC. 1461 S. Beltline Rd., Suite 500, Coppell, TX 75019.

# **TABLE of CONTENTS**

Parent and Teacher Guide 2	
References 4	
Activities & Color Pages:	
Color Page 5	
What Is Wrong? 6	
Color the Letters7	
Marie Curie's Time Line8	
Color Page9	
Tag-A-Long Sentences 10	
The Hidden Word 11	
Picture Puzzle 12	
Color Page 13	
Word Search 14	
Fun With Math and Words 15	
Word Wheel 16	
Color Page 17	
The A-Maze-Ing Marie 18	
Find the Spelling Mistakes 19	
Color Page 20	
Hidden Pictures 21	
Be a Science Detective 22	
Marie's Sizzling Science Section	

Color Page 24
Curie's Crossword 25
Letter Blackout 26
Word Whirls 27
Color Page 28
Female Firsts 29
Grid Code 30
Elementary Elements
Color Page 32
Flag Fun! 33
Secret Code 34
Puzzling Poetry
Color Page
Finish the Story 37
Marie Curie Word Puzzle
Matching Game
Color Page 40
True or False 41
Questions 42
Things to Think About & Do 43
Answer Key 44-46
Certificate of Achievement

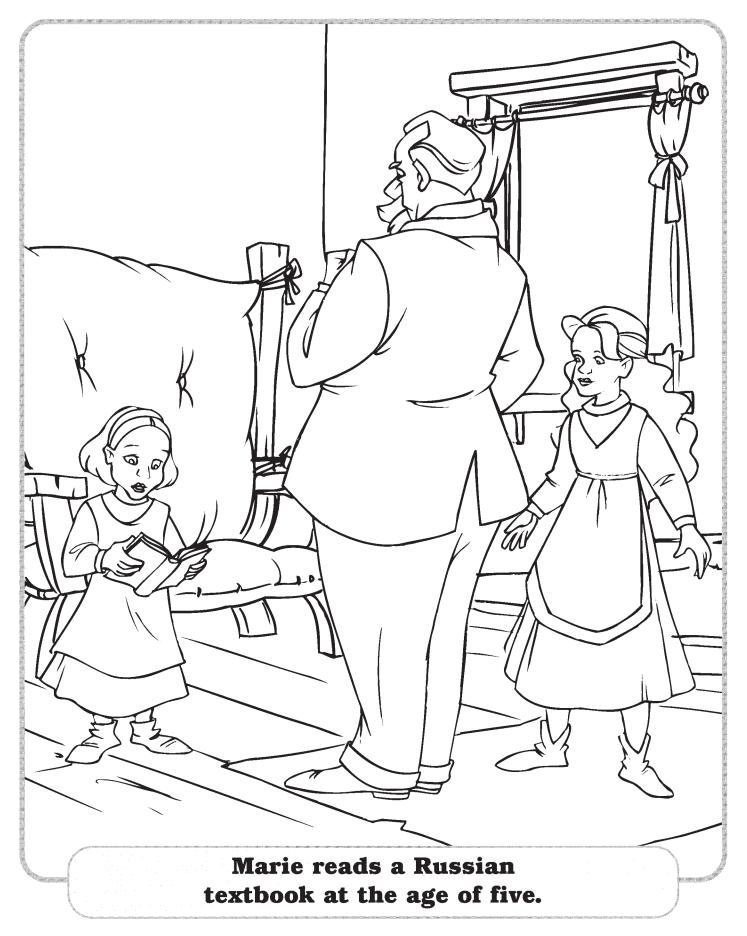
# REFERENCES

For those wishing to further study the life of Marie Curie, some of the references used in research for the Resource & Activity Book are listed below, along with other titles that may be of interest.

Curie, Eve. Madame Curie. New York:	Pocket Books, 1937.
-------------------------------------	---------------------

- Dunn, Andrew. *Pioneers of Science: Marie Curie.* New York: The Bookwright Press, 1991.
- Giroud, Francoise. *Marie Curie: A Life.* New York: Holmes & Meier, 1986.
- Grady, Sean M. *The Importance of Marie Curie.* San Diego: Lucent Books, 1992.
- Greene, Carol. *Marie Curie Pioneer Physicist.* Chicago: Childrens Press, 1984.
- Johnson, Ann Donegan. *The Value of Learning: The Story of Marie Curie.* La Jolla, California: Value Communications, Inc., 1978.
- Keller, Mollie. Marie Curie. New York: Franklin Watts, 1982.
- Parker, Steve. *Science Discoveries: Marie Curie and Radium*. New York: Chelsea House Publishers, 1992.
- Pasachoff, Naomi. *Marie Curie and the Science of Radioactivity.* New York: Oxford University Press, 1996.
- Quinn, Susan. *Marie Curie: A Life.* New York: Simon & Schuster, 1995.
- Reid, Robert. Marie Curie. New York: Saturday Review Press/E. P. Dutton & Co., Inc., 1974.
- Steineke, Anne E. Solutions Series: Marie Curie and the Discovery of Radium. Hauppauge, New York: Childrens Press Choice, 1987.
- Veglahn, Nancy. *The Mysterious Rays: Marie Curie's World.* New York: Coward, McGann & Geoghegan, Inc., 1977.

4

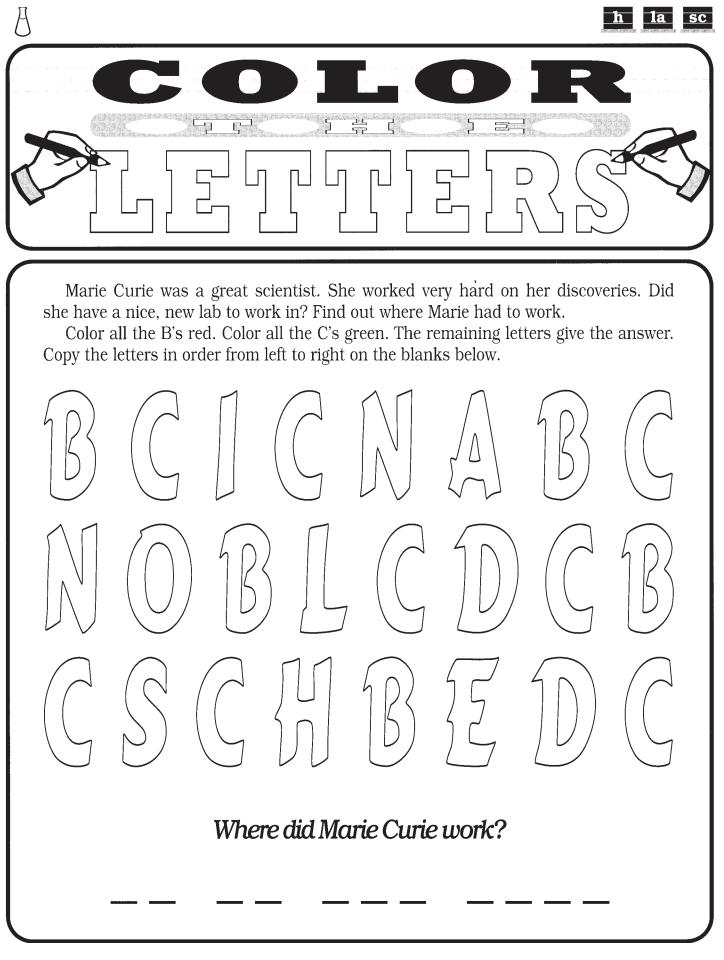


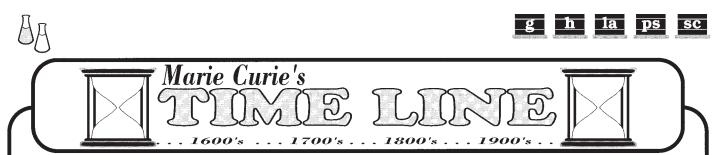


Many things that we use today were not invented when Marie Curie first started her work.

Look at the picture of her laboratory. Find seven (7) things that do not belong here.

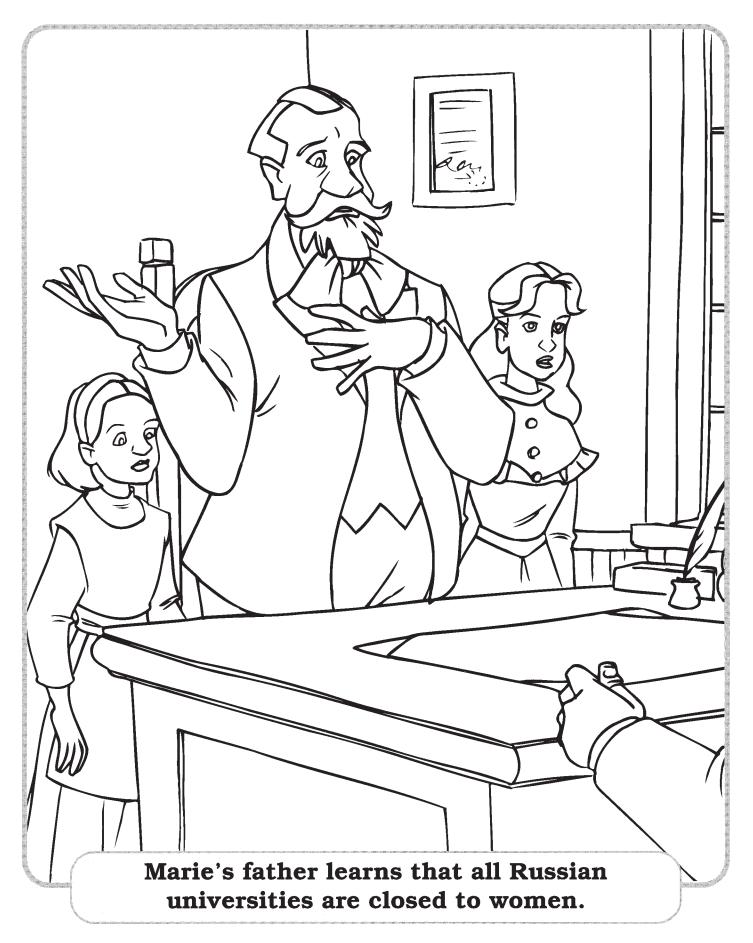


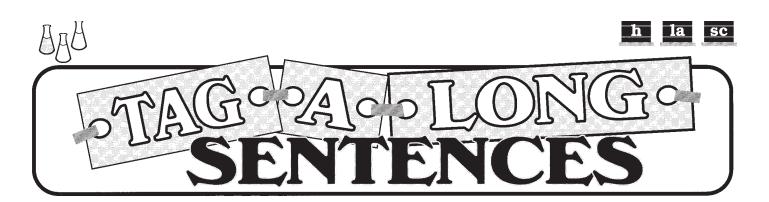




Find out what was happening in the world during Marie Curie's lifetime. Match the letters under the blanks with a letter in the Code Box. Write the matching letter in the blank.

		-					С	2	0	Ι	>	E	¥	E	3	0		x							
A	В	С	D	E	F	G	H	Ι	J	K	L	M	N	0	Р	Q	R	s	Т	U	v	w	x	Y	Z
Z	Y	X	W	v	U	Т	s	R	Q	Ρ	0	Ν	М	L	K	J	Ι	H	G	F	E	D	С	в	Α
18	859	•		ĸ	R		Ī	Ī	v		x	F	I	R	v	is l	boı	rn.						-	
18	861	L		T	he A	Ame	eric	an	x	R	Ē	R	0	-	D 2	Z	Ī	beg	ins	•					
18	865	5		Le	ewi	s Ca	arro	oll p	oubl	ish	es														
				Z	0	R	x	$\overline{\mathbf{v}}$		R	M		D		v v	N V	v	IC	$\overline{z}$	M	w	•			
18	867	7		Μ	arie	e Cı	ırie	is	bor	n a	s														
				N	Z	Ī	B	Z		H	P	0	L	W	LI	DE	H	P 2	2.						
18	869			Tl	he	<u>—</u>	<u>न</u>	v	A							<b>S</b> 0	pe	ned	bet	wee	n				
				th	e N		-	-		-						ea a	nd	the	Inc	lian	1 <b>O</b> 0	ear	1.		
18	886	6		A	lfre	d N	obe	l, a	Sw	edi	sh	che	mis	t, d	isc	ove	rs	w	BI	M Z	z ī	 F	<u></u> <u></u>	v v	- •
18	890	)		X		$\overline{\mathbf{v}}$ $\overline{\mathbf{v}}$	L	K	Z	G	Ī	Z	's t	om	b is	s di	sc	over	ed i	n_ v	7 T	B	K	G	•
18	891	L		Ti 1	he 1 pub	Adv olisł	ent ied.	ure	s oj	f	ī s	v	I	0	L	x	P		s	L	0	N ,	VI	_ i	5
19	914	-1	8	D		I	0	w		D	Z	I	Ι	inv	70lv	ves :	ma	any	cou	ntri	es.				
19	928	3		D	Z	0	G		w	R	H	M	$\overline{\mathbf{v}}$	в	ma	kes	s h	is fi	rst						
				N	R	X	P	v	B		N	L	F :	H	v	car	to	on.							
19	934	ŀ		N	Z	I	R	v		x	F	I	R	v	die	es.									





The sentences below tell something about Marie Curie, but the letters are not in the right order. Each word in the sentences is either combined with part of another word or is divided in the wrong place. Separate the letters to make the correct words. Write the sentence on the blank.

- 1. Whe nMari ewa sver yyoun ghe rfamil ykne wsh ewa sab rillian tch ild.
- 2. Ma riew as a lway sat thet opof here lass.
- 3. Mar iefini shed scho olat thea geof fift een.
- 4. Theu niversi tiesin Po landdi dno tacce ptgir ls.
- 5. Mari ewan ted togo tot heun iversit yin Paris.
- 6. Mar ie'sfa mil ycoul dno taffor dtos endh ert oscho ol.
- 7. Whil eMari eworke dtos avem one ysh ewent toa "se cre tun iver sity."
- 8. Af term any yea rs,Ma rief inall ywen ttoP aris.
- 9. Int woy ears Mari erec eive dhe rmas ter's degre ein phy sics.
- 10. Then extye arMar ietoo kano therde gree inmat hema tics.

*\* Try writing your own sentences this way for your friends to figure out.* 



# The HIDDEN WORD

Discover Marie Curie's great discovery. The word is hidden in the puzzle below.

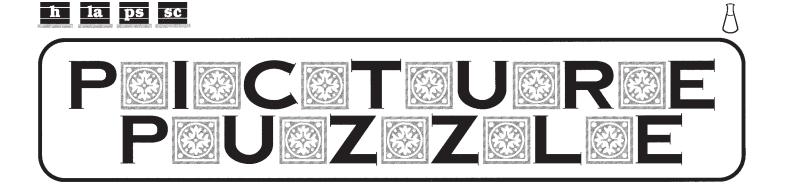
To find the word read the statements below and follow the directions.

- 1. If Marya Sklodowska became Marie Curie, color in all the spaces marked with a **2**.
- 2. If the Curies found a cure for the common cold, color in all the spaces marked with an **8**.
- 3. If Marie Curie was born in Poland, color in all the spaces marked with a 7.
- 4. If Marie Curie went to school in Paris, color in all the spaces marked with a **3**.
- 5. If Marie Curie's father was a farmer, color in all the spaces marked with a **1**.
- 6. If Marie Curie won a Nobel Prize, color in all the spaces marked with a **4**.
- 7. If Marie Curie won two Nobel Prizes, color in all the spaces marked with a **9**.

10	6	5	1	10	8	5	1	6	6	5	10	8	6	5	8	1	10	8	10	6	5	8	6
8	7	4	9	8	3	9	7	10	4	2	6 7	1	2	1	9	10	7	6	9	1 4	6 2	3	10
1	2	5	3	10	4	1	4	5	3	3 1	9	6	4	10	2	8	9	10	7	3	4	9	5
6	4	7	2	1	9	2	3	8	7	10	7	10	9	8	4	6	3	1	2	9	7/6	2	10
5	9	3 1	8 7	6	7	8	9	1	2	$\frac{1}{3}$	4	5	7	5	7	5	2	5	4	8	6	7	8
1	3	8	2	8	4	6	2	10	9	2	9 /1	8	3	6	3	7	4	6	2	6	8	3	6
8	10	5	1	10	10	5	1	6	5	10	6	5	1	10	8	10	1	6	10	5	10	5	8

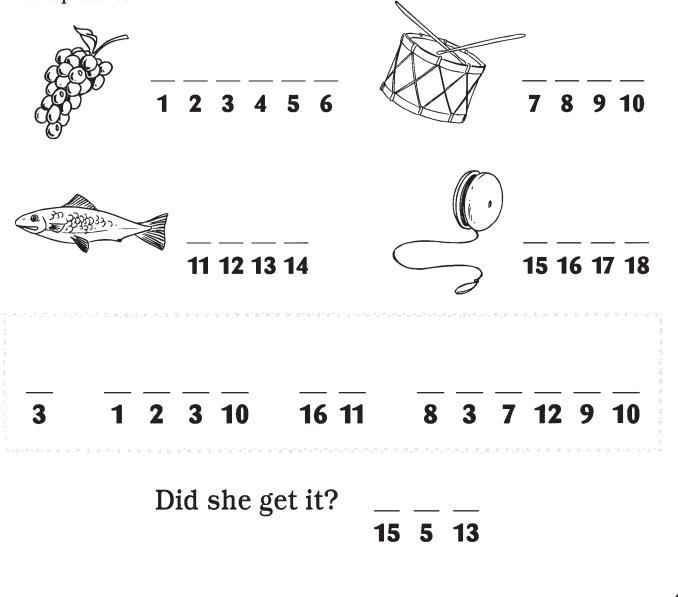
## What was Marie Curie's great discovery?

This is a very rare metallic element. It is used to treat diseases such as cancer. Marie Curie named it after the Latin word *radius*, meaning "ray."



A friend, who was an editor of a New York magazine, asked Marie what one thing in the world she wanted most. To find what Marie answered, work the puzzle.

Write the name of the picture on the blanks. Then match the numbers to the letters. Write the correct letter on the blanks below the pictures.





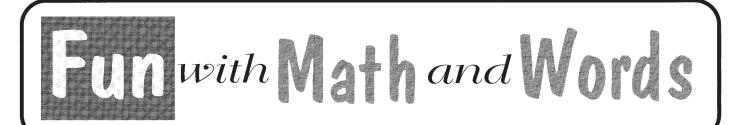


**WORD SEARCH** 

Find and circle the following words in the letter grid. They may be forward, backward, up, down, or diagonal.

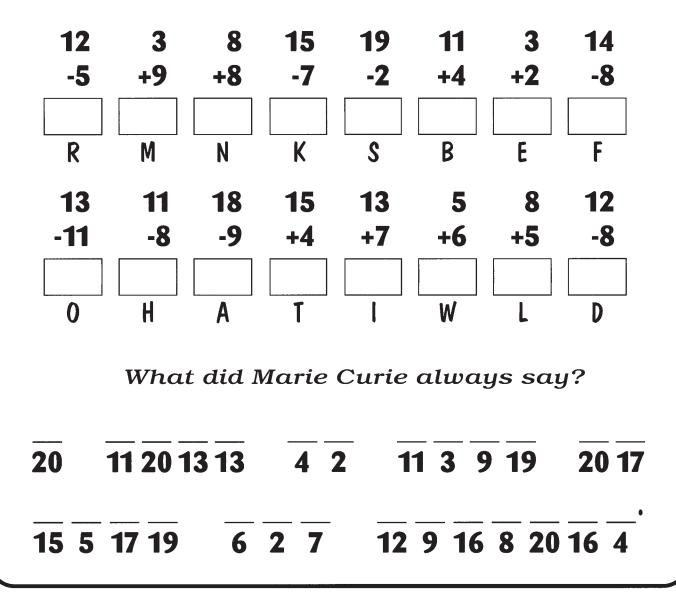
U	R	Α	Ν	Ι	$\mathbf{U}$	$\mathbf{M}$	С	н	E	$\mathbf{M}$	Ι	S	Т
Ρ	Α	R	Ι	S	$\mathbf{M}$	Α	$\mathbf{P}$	R	$\mathbf{B}$	g	$\mathbf{N}$	K	Ο
Α	D	Β	L	$\mathbf{U}$	Ν	R	С	D	L	E	R	Ρ	G
$\mathbf{D}$	Ι	L	Ι	С	$\mathbf{P}$	Ι	E	R	R	E	S	Η	L
Α	Ο	D	E	L	Α	E	R	L	S	Β	Ο	L	Ρ
E	Α	R	Ζ	R	S	С	Ι	E	$\mathbf{N}$	Τ	Ι	S	Τ
R	С	U	Ι	Ο	$\mathbf{K}$	U	Α	L	K	R	X	Τ	E
Ο	Τ	Ι	R	Ν	W	R	Ο	E	L	Τ	R	U	Α
S	Ι	$\mathbf{M}$	Ρ	0	С	Ι	L	$\mathbf{M}$	Ο	R	Α	D	С
S	$\mathbf{V}$	Β	L	Η	Α	E	Ν	E	R	G	Y	Y	Η
E	Ι	G	E	Ρ	0	L	Α	Ν	$\mathbf{D}$	Η	W	Ν	E
$\mathbf{F}$	Τ	Α	Β	Ο	Ο	K	S	Τ	L	$\mathbf{M}$	R	S	R
Ο	Y	R	Ο	Τ	Α	R	Ο	Β	Α	L	$\mathbf{M}$	W	Α
R	Β	Ρ	$\mathbf{N}$	Ο	Τ	E	S	Ν	R	Α	Ο	L	$\mathbf{K}$
Ρ	E	X	Ρ	E	R	Ι	$\mathbf{M}$	E	$\mathbf{N}$	Τ	Ν	$\mathbf{M}$	Ο
BOOK CANC CHEM ELEM ENER	ER IIST ENT	G) H( L/	EXPERIMENTNOBEL PRIZEPROFESSORSCIENTISGLOWNOTESRADIOACTIVITYSTUDYHONORPARISRADIUMTEACHEILABORATORYPIERREREADURANIUMMARIE CURIEPOLANDRESEARCHX-RAY							IER			

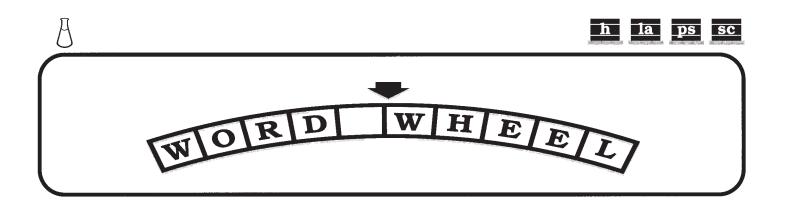




Marie Curie was offered huge amounts of money for her discovery, but she refused the offers. She believed that a true scientist should share, not sell, her discoveries. Discover what she always told people who wanted to buy her secrets.

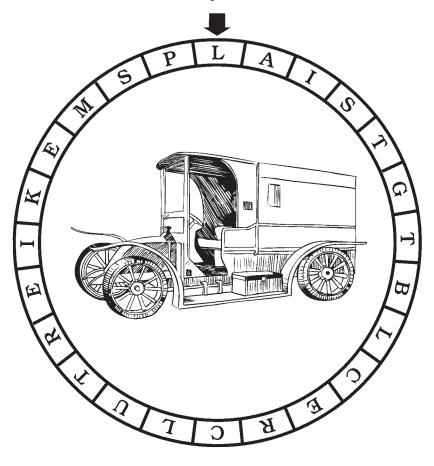
Work the math problems below. Your answers are now code numbers for the letters below them. Match the numbers below the blanks with your answers and write the correct letter in the blank.





Marie Curie used her science to help the soldiers in World War I (1914-1918). For the first time, X-rays were used in the medical field. X-rays helped to locate bullets and broken bones in the soldiers. Marie trained doctors and nurses to use the X-ray equipment. Small vans carrying the X-ray units would travel along the battlefront. The soldiers had a name for these vans. Work the puzzle to find what they were called.

Circle the first letter at the arrow. Continue to the right and circle every other letter. Copy the circled letters on the blanks below. These letters spell the answer.



What were the mobile X-ray vans called?

It is estimated that because of Marie's X-ray stations, more than a million men were helped during World War I!





Marie Curie was the first woman to receive the highest award given in the world. She was also the first to receive it twice. She won it first, along with her husband, in 1903, for physics. In 1911 she won it alone for chemistry.

Find what this high award is called by going through the maze below. There is only one way through. After you have found the way, go back and circle every other letter, starting with the first letter  $\mathbf{T}$ . The circled letters spell the name of the high award that Marie Curie was given. Copy the circled letters on the blanks below to complete the sentence.

**OGB** S E  $\mathbf{N}$ G G **I**. H R Ð S R Т A T E  $\mathbf{T}$ P K Р K Ð E E R Z T K R E E Finish Т Marie Curie was the first woman ever to receive

Start

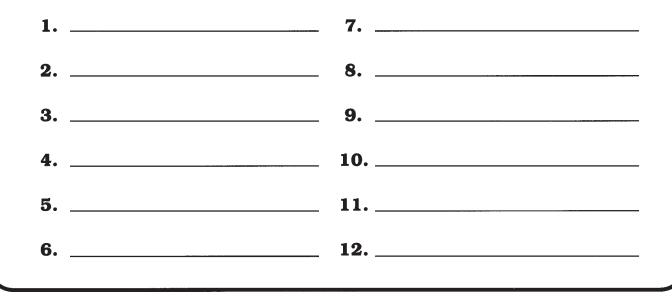




Find and circle the twelve (12) spelling mistakes in the paragraph below. Write the words correctly on the spaces provided.

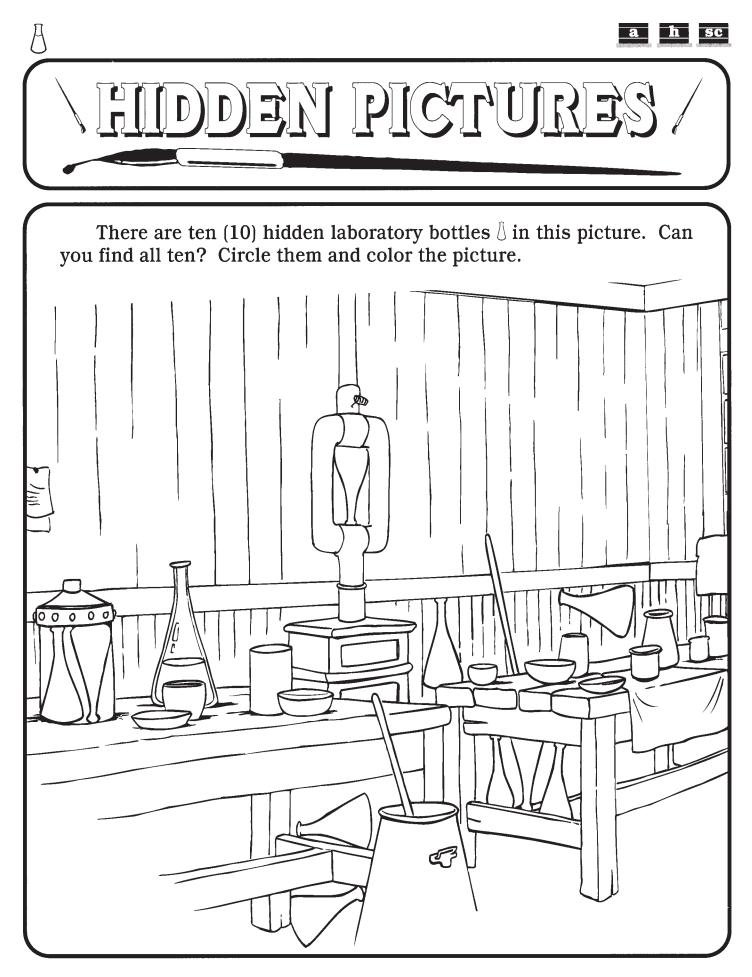
## The Nobel Prize

The Nobel Prize awards were estableshed in 1895 by a Swedish chemist, Alfred Nobel. He had become a very welthy man after inventing dynomite. In his will he directed that the incume from his estate be used to fund five annuel prizes. These prizes are awarded eech year to people who have made a valuable contribution to the "good of humanity" in chimistry, physics, medicine, litrature, and peace. A sixth award for economics was added in 1969. The winners recieve their awards on December 10, the anniversary of the deth of Alfred Nobel. The Nobel Foundation started giving out awards in 1901. Today, they remain the most honered prizes in the wurld.













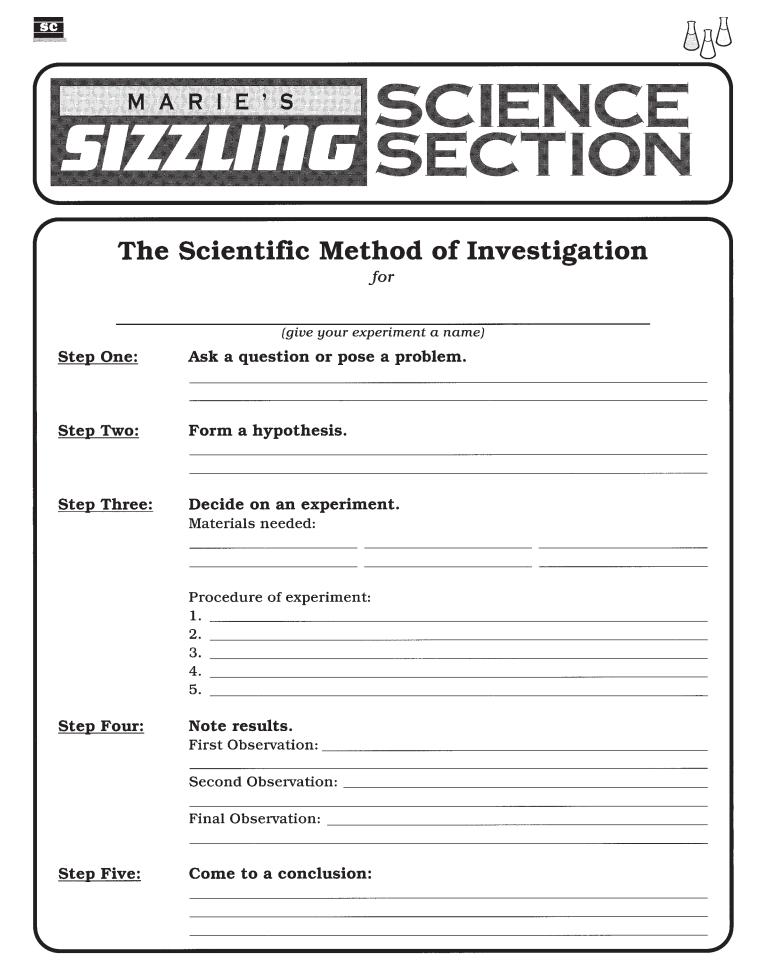
Marie Curie was a true scientist who was dedicated to find answers. When she first heard about the strange, invisible rays coming from uranium, she wanted to find what it was. She spent countless hours each day for four years before coming up with the answer.

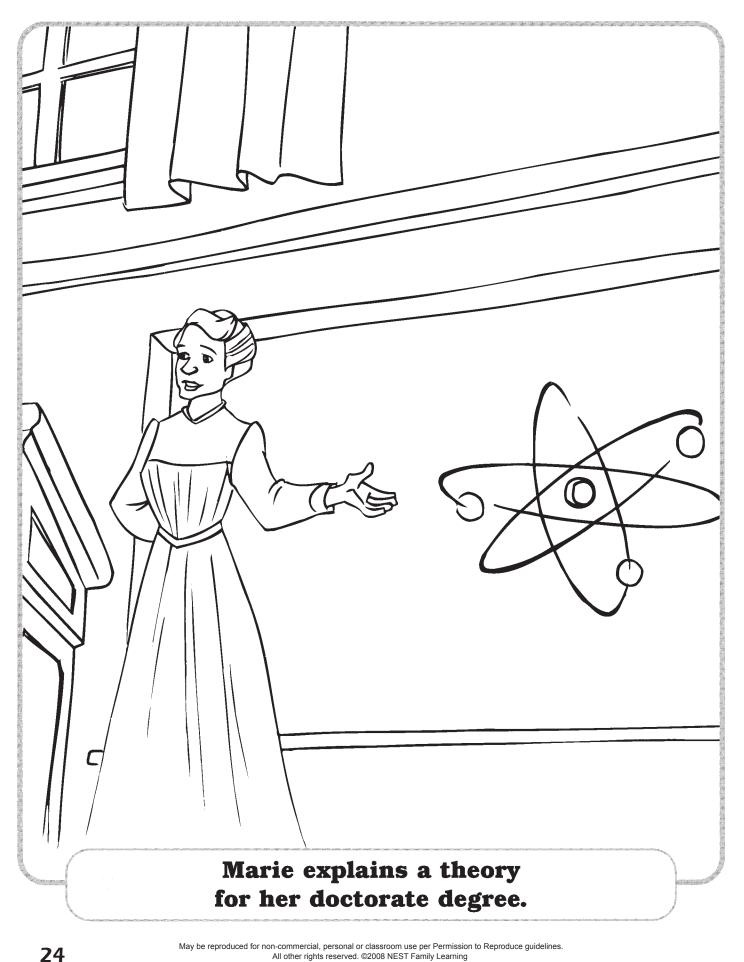
Pretend you're a science detective. You are going to solve a mystery in science! First of all, let's get organized.

### "The Scientific Method of Investigation"

<u>Step One:</u>	Come up with a problem that you want to solve. It has to be a problem that you can find the answer through experiments. For example, "Will a plant stay alive if I water it with mouthwash?"
<u>Step Two:</u>	Make a statement about what you think will happen. This is called a hypothesis. You could say, "A plant will die if it is watered with mouthwash."
<u>Step Three:</u>	Now it's time to test your hypothesis. Decide on the type of experiment you want to use. You need to have a "controlled" group and an "experiment" group. For example, a plant watered with mouthwash would be labeled "experiment" and a plant watered with water would be labeled "control." Make a list of the materials you will need.
<u>Step Four:</u>	Make observations at regular intervals. Note your results.
<u>Step Five:</u>	Come to a final conclusion. Summarize the experiment in a statement that relates to your hypothesis. If your results showed that your hypothesis was wrong, do not change your hypothesis!

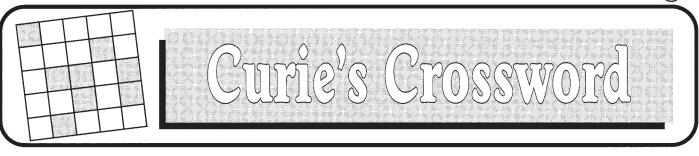
LOTS OF LUCK, SCIENCE DETECTIVE!











## ACROSS

- **1.** A great scientist.
- **4.** A helper or associate.
- **6.** Discovered by Marie Curie.
- **8.** The smallest unit of a substance.

## DOWN

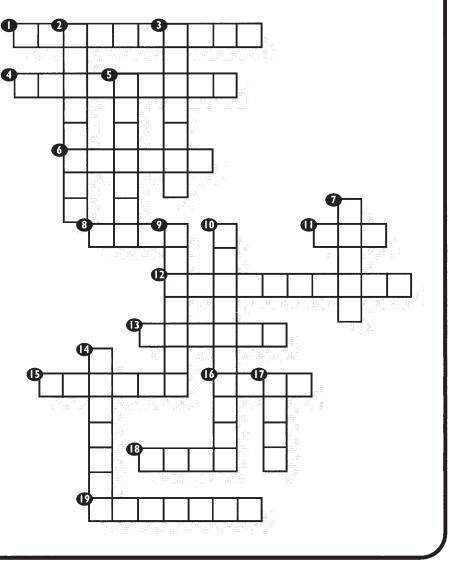
- **2.** Scientific investigation.
- 3. Radioactive element.
- 5. A pupil.
- 7. Where Marie went to the university.
- **9.** The dream of a true scientist is to serve
- 10. Scientist's workshop.
- **14.** A single, pure substance.
- **17.** Marie's first laboratory was in a \_\_\_\_\_.

### WORD BOX

assistant	radium
atom	ray
element	research
laboratory	shed
mankind	student
Marie Curie	teacher
Nobel Prize	test
Paris	uranium
Pierre	X-ray
Poland	

- **11.** A thin line of radiation or light.
- **12.** A high award for achievement.
- **13.** Marie's husband.

- **15.** Marie's birthplace.
- **16.** To validate or try out.
- **18.** A ray that can pass through solids.
- 19. A professor.







Marie Curie gave herself and all of her time and attention to a discovery that laid the foundation for the Atomic Age. She believed that mankind should benefit from her discoveries. She included her family in her work. One of her daughters even went on to win the Nobel Prize.

There is a word that shows a character quality that Marie Curie had. Work the puzzle below to find the word.

Step One: Black out every letter that appears three times or more.

Ο	K	B	R	W	J	V	Α	S	R
С	X	S	D	G	F	R	Μ	С	Y
Μ	Α	Y	K	С	Τ	G	Α	K	J
B	F	Ι	Χ	W	G	S	Μ	E	C
F	Ν	Y	Α	J	B	X	Ο	G	W

**Step Two:** Copy the letters that are not blacked out in these boxes.

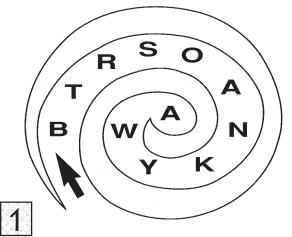
**Step Three:** Unscramble the letters to form a word that shows one of Marie Curie's character qualities. Write the letters on the blanks.

giving or applying one's time, attention, or self to someone or to a cause and being loyal to that.

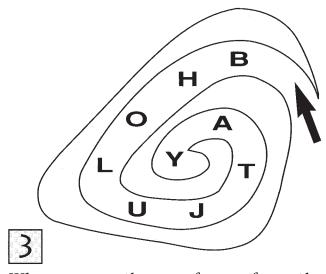




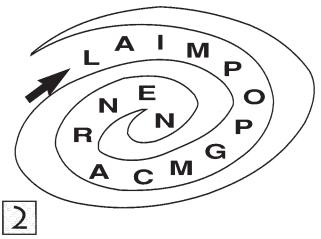
Begin at the arrow and circle the first letter. Then circle every other letter. The circled letters make a word that will answer the question below the puzzle. Write your answer in the blank.



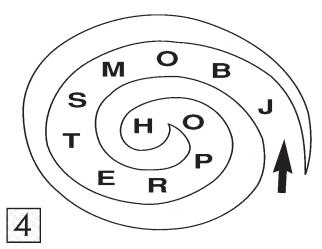
Who was Marie's sister that helped her go to the university?



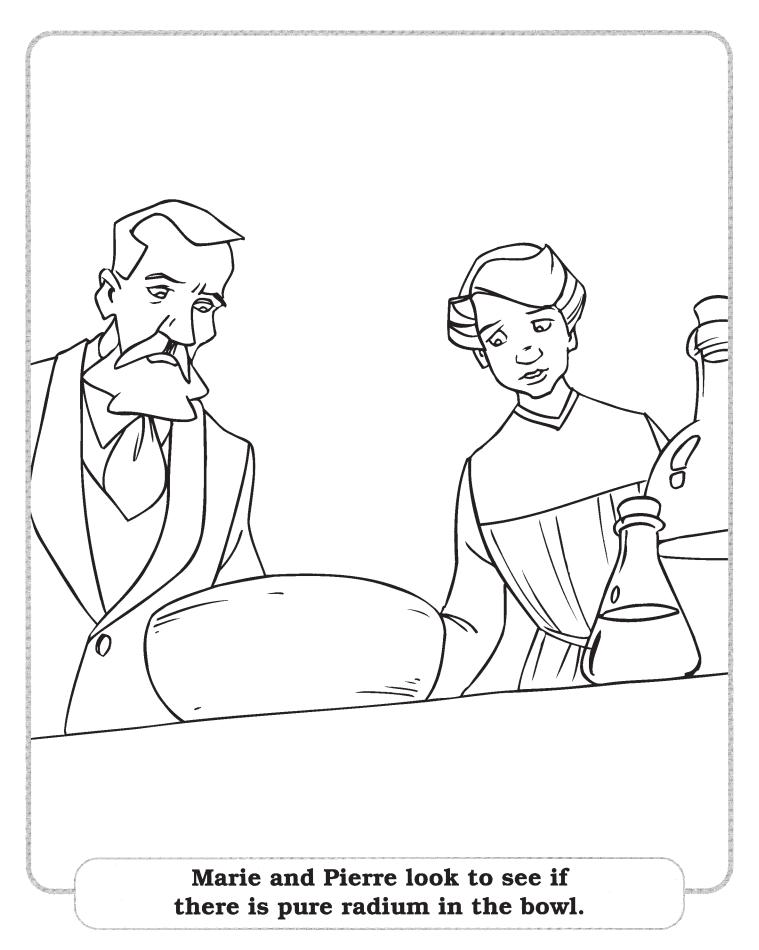
Who was another professor from the university who always supported Marie in her studies?



Who was the professor who first taught Marie at the university and then later was the one who awarded her the Doctorate of Science?



Who was Marie's brother who became a doctor?

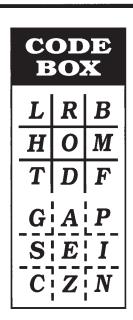




In Marie Curie's time, women were not allowed to do certain things. Marie always believed in equality with men, but she did not join in the movement for women's rights. Marie was proud of her work as a scientist. As a result, she was the first woman to do many things. Decode the symbols below to find three of the "first" things that she did.

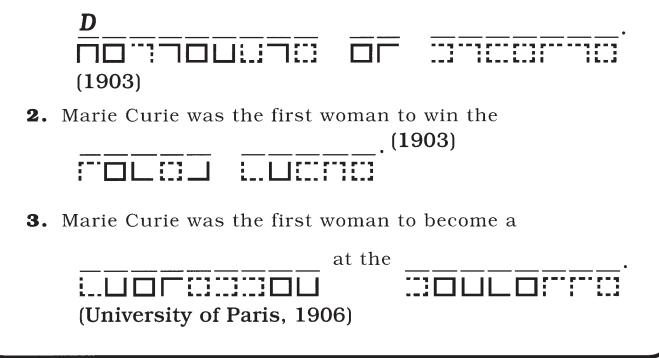
EMALE

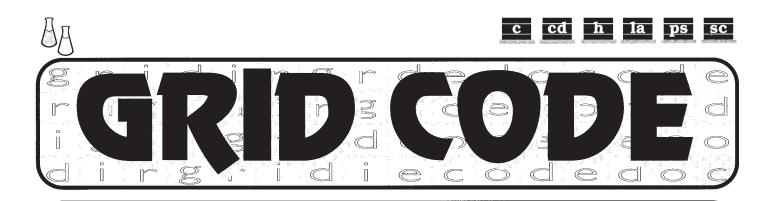
In the Code Box to the right, each letter has its own symbol. Use the symbols to find the answer. Copy the correct letters on the blanks. The first letter has been done for you.



FIRSTS

**1.** Marie Curie was the first woman in Europe to be awarded the degree





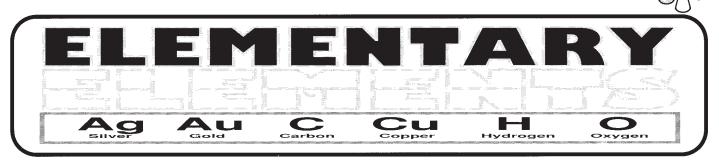
Even though Marie Curie was awarded the highest honors in the world, she was unchanged by all the fame. She often thought the fame interferred with her work. The Curies refused the wealth that they could have had from their discoveries. Find what Albert Einstein, one of the major physicists of the 20th century, wrote about Marie after she died.

Use the Grid Code Box to decode the message below. Match the code under the blanks with a letter in the Grid Code Box. Write the correct letter on the blank.

GE	RID	CO	)DI	; B(	X
		2	3		5
	e	С		r	Y
	f	b	t	n	g
G	u	h	a	k	W
	0	р	d	m	S

"Marie Curie is, of all celebrated human beings, B3 C2 A1 B3 C2 A1 D1 B4 A3 A5 D1 B4 A1 C5 C2 D1 D4 B1 C3 D4 A1 C2 C3 D5 B4 D1 B3 A2 D1 A4 A4 C1 D2 B3 A1 D3- Albert Einstein



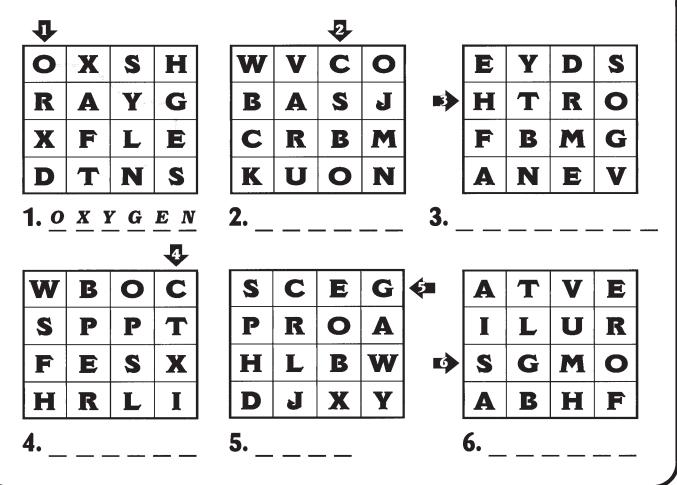


Marie Curie worked with uranium which is an element. An element is the simplest form of matter. It cannot be broken down into two or more simpler substances. Elements can combine with other elements to form another material. Some of these combinations make up air, water, stone, wood, the food we eat, and even our bodies. It took many years of experimenting for scientists to discover all of the elements.

Find some of the elements in the puzzles below. Begin at the arrow and

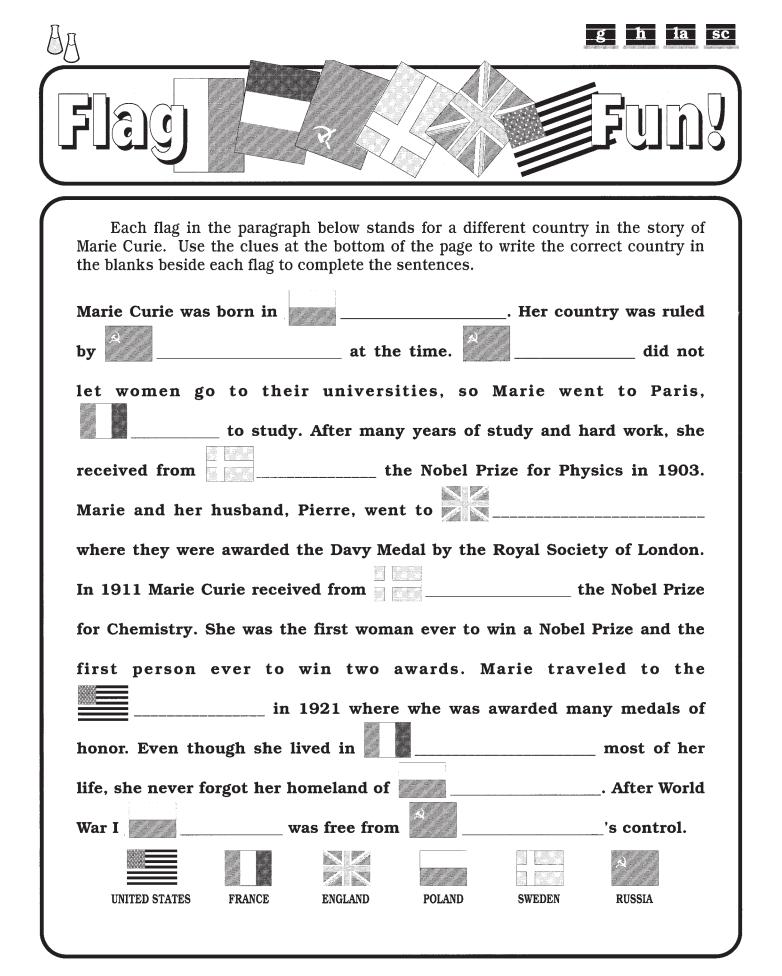
draw a continuous line through the letter in each box to spell a word. Write each element's name below the box. Use the Word Box and the example to help you.

	WORD BOX										
carbon	oxygen	hydrogen									
silver	gold	copper									











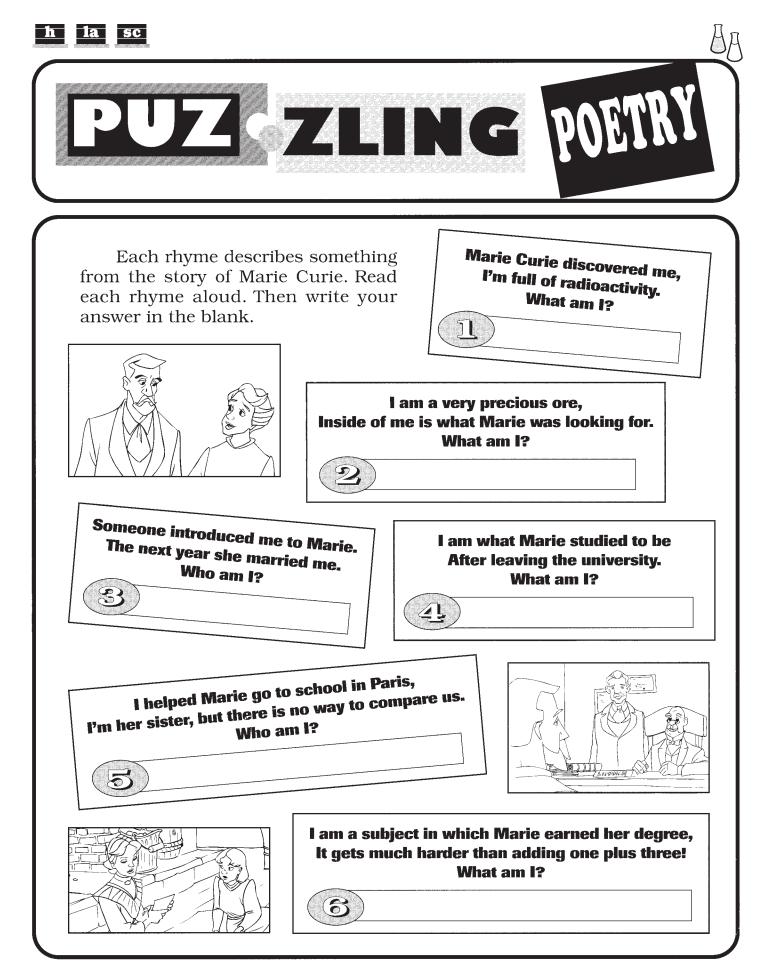


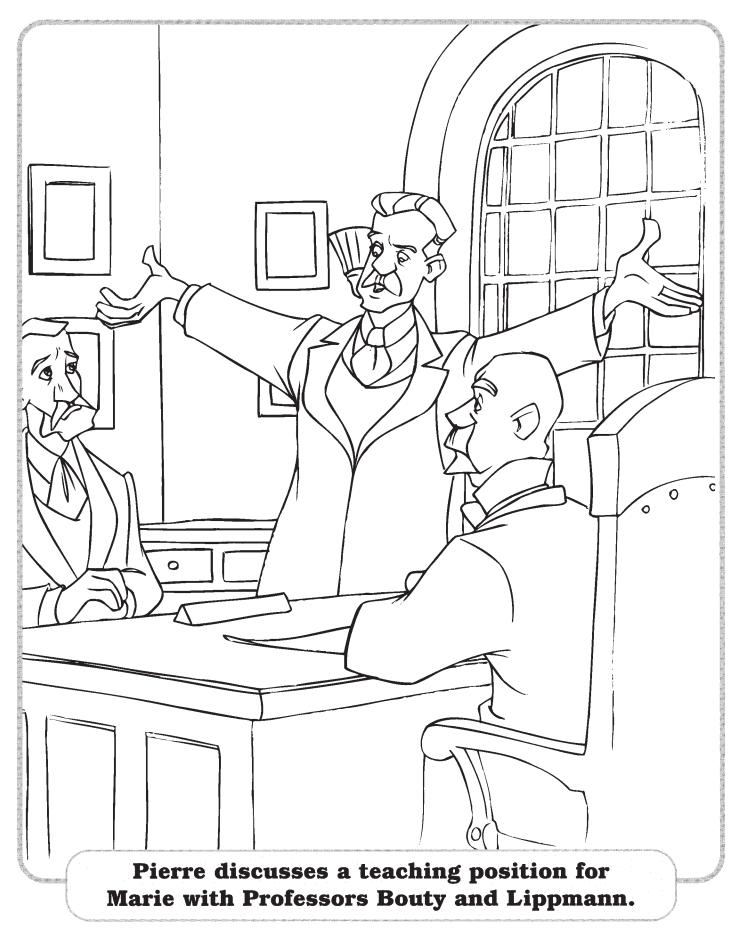
A cousin sent Marie some money for a wedding present. Marie bought something for Pierre and herself with the money. What did she buy with the money?

Work the puzzle to find what it was, and why she bought it. Match the numbers under the blanks with a letter in the Code Box. Write the correct letter on the blank.

A B C E G H I L M N O R S T U W Y
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

2 7 3 17 3 8 4 13 14 6 4 17





Finish	the	Sto	ny	
The story below is a verbs, nouns, or adjectives the words in the blanks. careful! Some are tricky.	s in the Word	Boxes that	best fit the bl	anks. Write
NOUN BOX cancer dangers dark element everyone gram entertainment	LAUE	VE BOX new old radioactive radium	closing re	DX oducing placed sing noked
Radium is a highly radioa	<b>"Radi</b> ctive, metallic _		It was	
by	in 1902. It com	es mainly from	m	When
"miracle" element. Because it	verb			ised on clock
faces and				
advertised to be able to heal ma water adjective	nou r. Radium was u	Peop n 1sed in hair	ple went to spas	to in and
adjective creams. This was exposed toadjective			noun	_
adjective				
used to treat		noun		

May be reproduced for non-commercial, personal or classroom use per Permission to Reproduce guidelines. All other rights reserved. ©2008 NEST Family Learning



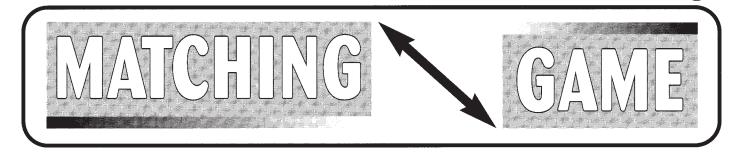


Find some interesting facts about Marie Curie by working the puzzle below.

In the word puzzle you will find each letter in Marie Curie's name is used to make another word. To find the word, answer the questions to the left of the word. If you need help, the words are in the Word Box. The first one has been done for you.

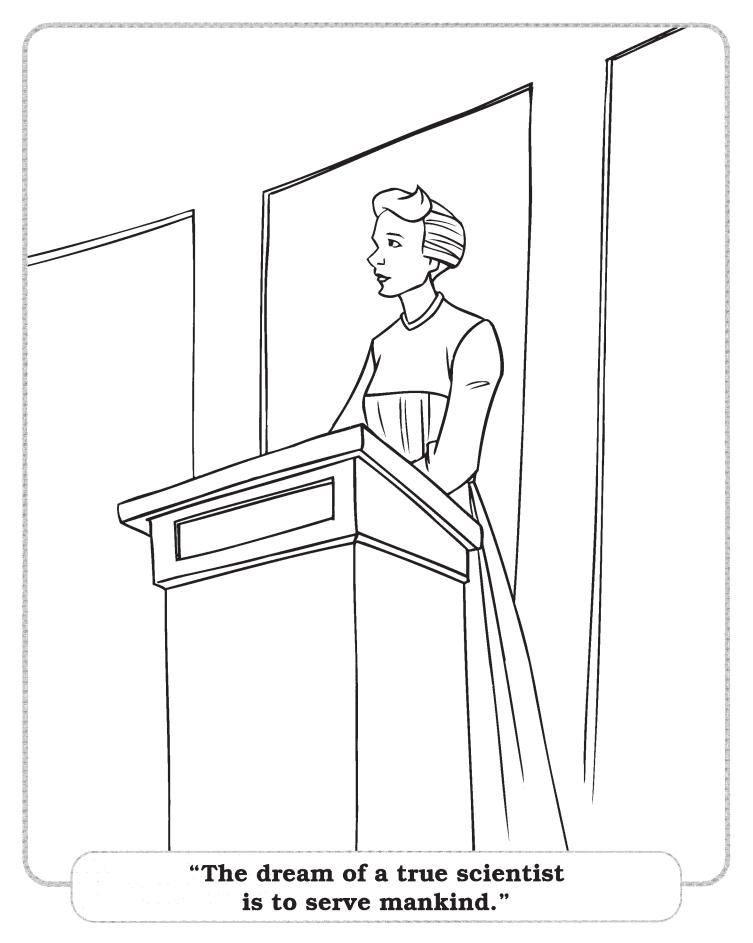
	WORD BOX				
	Bronya French	Marya Nobel	Paris Pierre	Poland radium	Russia teach
l.	Marie was given she was born.	the name	when	М	<u>arya</u>
2.	Marie was born i	n		A	
3.	The sister that h was	elped her get t	o Paris	<u>R</u>	
	Marie went to	to study.		[]	
5.	All of her lessons	s were taught i	n	E	
	Marie wanted to	go back to Pol	and to	C	_
•	Poland was ruled time.	l by a	t this	U	
•	Marie discovered			R	
).	In 1895 Marie m Curie.	arried			
0.	Marie was the fir Priz		rin the	E	





Draw a line to match the words on the left with the words that go with it on the right. The words all come from the story of Marie Curie.

1.Birthplace	A. Scientist
2.Cancer	B. A high award
3.Experiment	C. Husband
4. Laboratory	D. Investigate
5. Marie Curie	E. Radium
6.Nobel Prize	F. Poland
7.Paris	G. Test
8. Pierre	H. Teacher
9. Pitchblende	I. Explanation
10. Professor	J. Radioactive
11. Research	K. Contains uranium
12. Study	L. Workshop
13. Theory	M. Sorbonne University
14. Uranium	N. Books







# Read each sentence. If it is true, write T on the blank preceding it. If it is not true, write F in the blank.

- \_ 1. Marie Curie was born in Poland.
- 2. Marie's country was ruled by Russia.
- \_\_\_\_\_ 3. Marie's father was a Russian.
- \_\_\_\_\_ 4. All Russian universities were closed to women.
- \_\_\_\_ 5. Marie went to a secret university where everything was taught in Polish.
- 6. Marie worked as a children's governess earning money to help her sister, Bronya, go to school.
  - \_ 7. Bronya went to Paris to attend school.
- 8. Bronya studied and became a doctor.
- 9. After working for five years to help Bronya, Marie didn't want to go to Paris.
- \_\_\_\_\_ 10. Marie lived in poverty while she attended school in Paris.
- \_\_\_\_\_ 11. Marie graduated with the highest honors.
- \_\_\_\_\_ 12. Marie was anxious to work to get rich.
- \_\_\_\_\_ 13. Marie married Pierre because he was rich.
- 14. Marie and Pierre worked hard to help suffering mankind.
- \_\_\_\_\_ 15. Marie was the first woman to teach in a university.
- 16. Marie had a large, well-equipped laboratory to work in.
- \_\_\_\_ 17. Marie discovered radium.
- \_\_\_\_\_ 18. Marie was given two Nobel Prizes.
  - \_\_\_\_ 19. Marie worked hard for years to prove her theory.
  - \_\_\_\_ 20. Marie chose to give her discovery away, rather than sell it.





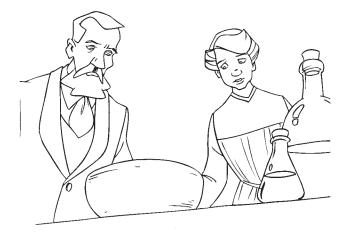
- 1. Where was Marie Curie born?
- 2. What country ruled Poland at the time of Marie's birth?
- 3. Why could Marie not attend a university in Poland?
- 4. How did Marie help her sister Bronya to go to school?
- 5. Where did Bronya go to attend a university?
- 6. What did Bronya study to become?
- 7. How many years did Marie work to help Bronya?
- 8. When Marie finally got to go to Paris to the university, where did she live?
- 9. What did Marie study?
- 10. How did Marie rank in her classes?
- 11. What degrees did Marie earn from the university?
- 12. What had Marie planned to do after she graduated from school?
- 13. What did Marie choose to do instead and why?
- 14. Had any woman ever earned a doctorate degree before Marie?
- 15. After many years of hard work, what did Marie and Pierre discover?
- 16. Why was radium such an important discovery?
- 17. When offered money for their discovery, what did Marie and Pierre do?
- 18. Where did they do their experimental work?
- 19. What great honor was given to Marie twice?
- 20. What did Marie and Pierre teach about a true scientist?





# NOTE TO THE TEACHER: These are activities for a group to discuss and think about.

- 1. When Marie was in Poland, she went to a secret university that was taught in the Polish language. Russia ruled Poland at that time and outlawed teaching in Polish. It was also against the law to teach Polish history. Why do you think the Russians made these laws? Why do you think Marie and the other students broke the law to go to the secret university?
- 2. Marie and Pierre had a chance to make a lot of money from their discovery. They decided that what they discovered belonged to everyone and was not theirs to sell. What do you think would have happened if they had sold their idea to one person? Discuss what happened as a result of their sharing their discovery.



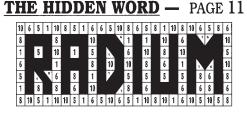
- 3. Marie Curie worked four long years to separate the pitchblende from the radium. It took several tons of pitchblende to get a speck of pure radium that weighed less than a potato chip! Discuss what it means to be scientist. Does it require certain qualities in a person? Do experiments sometimes fail? What should a scientist do when the experiment fails?
- 4. The Curies refused to believe that radioactivity could be dangerous. Discuss what we now know about these elements. How is radiation used today?
- 5. As a class project, make a study on radiation and how it provided the foundation for the Atomic Age. Include the benefits and drawbacks from atomic and nuclear power.

# ANSWER KEY

WHAT IS WRONG? — PAGE 6 Phone, flashlight, microwave, electric ceiling light, refrigerator, soda pop can, vacuum cleaner. **COLOR THE LETTERS** — PAGE 7 BCICNABC NOBLCDCB CSCMBEDC IN AN OLD SHED MARIE CURIE'S TIME LINE - PAGE 8 Pierre Curie 1859 1861 **Civil War** 1865 Alice in Wonderland Marva Sklodowska 1867 1869 Suez Canal 1886 dvnamite 1890 Cleopatra, Egypt 1891 Sherlock Holmes 1914-18 World War I 1928 Walt Disney, Micky Mouse Marie Curie 1934

# TAG-A-LONG SENTENCES — PAGE 10

- 1. When Marie was very young, her family knew she was a brilliant child.
- 2. Marie was always at the top of her class.
- 3. Marie finished school at the age of fifteen.
- 4. The universities in Poland did not accept girls.
- 5. Marie wanted to go to the university in Paris.
- 6. Marie's family could not afford to send her to school.
- 7. While Marie worked to save money, she went to a "secret university."
- 8. After many years, Marie finally went to Paris.
- 9. In two years Marie received her master's degree in physics.
- 10. The next year Marie took another degree in mathematics.



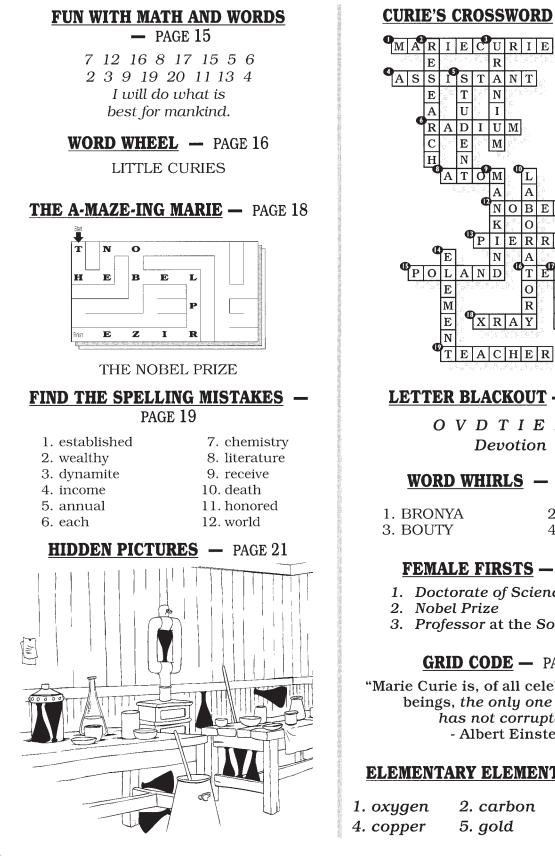
#### **PICTURE PUZZLE** — PAGE 12

grapes drum fish yoyo A gram of radium Yes

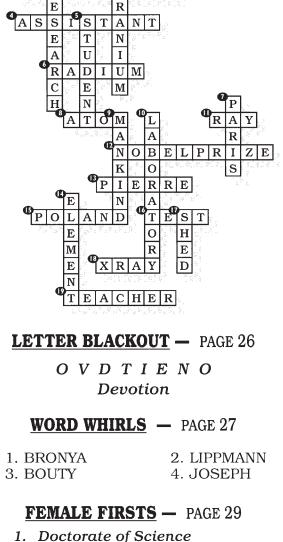
## WORD SEARCH - PAGE 14



May be reproduced for non-commercial, personal or classroom use per Permission to Reproduce guidelines. All other rights reserved. ©2008 NEST Family Learning



### CURIE'S CROSSWORD — PAGE 25



- 2. Nobel Prize
- 3. Professor at the Sorbonne

# **GRID CODE** — PAGE 30

"Marie Curie is, of all celebrated human beings, the only one whom fame has not corrupted." - Albert Einstein

#### **ELEMENTARY ELEMENTS** — PAGE 31

1. oxygen	2. carbon	3. hydrogen
4. copper	5. gold	6. silver

May be reproduced for non-commercial, personal or classroom use per Permission to Reproduce guidelines. All other rights reserved. ©2008 NEST Family Learning

# FLAG FUN - PAGE 33

Poland, Russia, Russia, France, Sweden, England, Sweden, United States, France, Poland, Poland, Russia.

# **SECRET CODE** — PAGE 34

She bought two bicycles. They went on them on their honeymoon.

### PUZZLING POETRY - PAGE 35

1. radium	4. teacher
2. uranium	5. Bronya
3. Pierre Curie	6. mathematics

## FINISH THE STORY - PAGE 37

element - noun discovered - verb Marie Curie - noun uranium - noun everyone - noun new - adjective glowed - verb dark - noun instruments - noun gram - noun Radium - adjective producing - verb sicknesses - noun bathe - verb radioactive - adjective tonics - noun face - adjective dangers - noun radioactive - adjective cancer - noun radium - noun cheaper - adjective replaced - verb industrial - adjective

# WORD PUZZLE - PAGE 38

1.	Marya	6.	teach
2.	Poland	7.	Russia
З.	Bronya	8.	radium
4.	Paris	9.	Pierre
5.	French	10.	Nobel

#### **MATCHING GAME** — PAGE 39

Birthplace — F. Poland
Cancer — E. Radium
Experiment — G. Test
Laboratory — L. Workshop
Marie Curie — A. Scientist
Nobel Prize — B. A high award
Paris — M. Sorbonne University
Pierre — C. Husband
Pitchblende — K. Contains uranium
Professor — H. Teacher
Research — D. Investigate
Study — N. Books
Theory — I. Explanation
Uranium — J. Radioactive

#### TRUE OR FALSE - PAGE 41

1. T	6. T	11. T	16. F
2. T	7. T	12. F	17. T
3. F	8. T	13. F	18. T
4. T	9. F	14. T	19. T
5. T	10. T	15. T	20. T

#### **<u>QUESTIONS</u>** – PAGE 42

- 1. She was born in Poland.
- 2. Russia ruled Poland.
- 3. No woman could enter.
- 4. She worked as a governess.
- 5. Bronya went to Paris.
- 6. Bronya studied medicine to become a doctor.
- 7. Marie worked five years.
- 8. Marie lived in a cold, dark attic apartment.
- 9. She studied physics and mathematics.
- 10. She was a top student.
- 11. She earned a master's degree in both physics and mathematics and a doctorate in science.
- 12. She wanted to go back to Poland and teach what she had learned.
- 13. Marie married Pierre Curie and continued her experiments in Paris.
- 14. No, she was the first.
- 15. Marie and Pierre discovered radium.
- 16. It kills cancer cells.
- 17. They gave their discovery away.
- 18. They worked in an old shed.
- 19. She received the Nobel Prize.
- 20. A true scientist's dream is to serve mankind.



# Enjoy the Lessons of History...



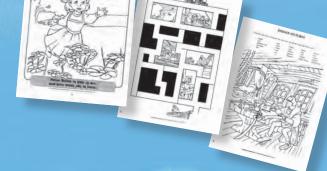
At an early age, Madame Curie was taught the importance of education. As an adult she became an amazing heroine of science. Her devotion to her work, despite poverty and sickness, gave the world the theory of radioactivity, the discovery of plutonium, and the isolation or radium.

Marie was the first person to receive two Nobel Prizes. She chose not to profit from her research on radium so that the findings could be used for cancer research.

**NEST Family Entertainment Products are Recognized for Excellence in Family and** Children's Entertainment.



Watch as children are drawn into The Animated Hero Classics<sup>®</sup> series! Then, the fun and learning continue as they build on their biographical and historical knowledge by exploring the lessons further with this series of Resource & Activity Books full of curriculum related activities, problem solving, learning assessment tools as well as word games, puzzles and coloring pages. Each book in the Animated Hero Classics<sup>®</sup> series is an adventure for children of all ages and the perfect way to encourage continued learning discovery!



#### Collect the other titles in NEST's animated Hero Classics collection:

- Thomas Edison **George Washington** Harriet Tubman **Christopher Columbus Benjamin Franklin Florence Nightingale** William Bradford Pocahontas Abraham Lincoln Louis Pasteur
- Alexander Graham Bell **The Wright Brothers Helen Keller** Leonardo da Vinci Joan of Arc Marco Polo Galileo Marie Curie Beethoven



ISBN 1-56489-944-6

NEST Family Entertainment<sup>TM</sup> 1461 S. Beltline Rd., Ste 500, Coppell, TX 75019

TM, ® & © 2005 NEST. All rights reserved. r 2.0 Printed in the USA