

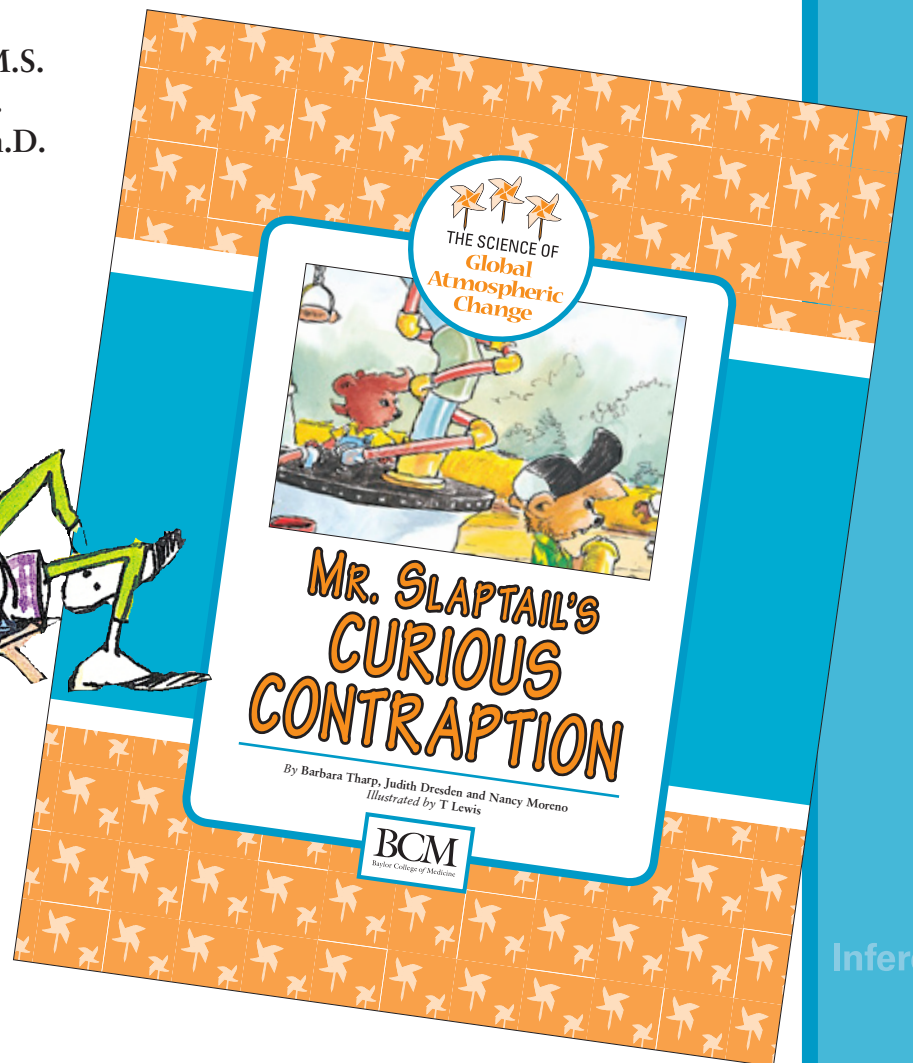


THE READING LINK

for *The Science of Global Atmospheric Change Teacher's Guide* and *Mr. Slaptail's Curious Contraction*

Written by

Barbara Z. Tharp, M.S.
Judith Dresden, M.S.
Nancy P. Moreno Ph.D.



BioEd Teacher Resources from the Center for Educational Outreach

© 2012 Baylor College of Medicine

BCM
Baylor College of Medicine

The Reading Links have been created as ready-to-use reading and writing activities that are directly related to My World[®] integrated units. They are not intended to represent a comprehensive reading program. The activities are related to reading objectives common to many curricula and cover a range of grade and ability levels. Teachers may wish to select from these activities those that are most appropriate for their own students.

BioEdSM

© 2012 by Baylor College of Medicine
All rights reserved.
Printed in the United States of America

Teacher Resources from the Center for Educational Outreach at Baylor College of Medicine.

The marks “My World” and “My Health My World” are trademarks of Baylor College of Medicine. The mark “BioEd” is a service mark of Baylor College of Medicine.

No part of this book may be reproduced by any mechanical, photographic or electronic process, or in the form of an audio recording, nor may it be stored in a retrieval system, transmitted, or otherwise copied for public or private use without prior written permission of the publisher. Black-line masters reproduced for classroom use are excepted.

The activities described in this book are intended for school-age children under direct supervision of adults. The authors, Baylor College of Medicine and the publisher cannot be responsible for any accidents or injuries that may result from conduct of the activities, from not specifically following directions, or from ignoring cautions contained in the text.

Development of this My World[®] unit was supported by grant number R25 ES06932 from the National Institute of Environmental Health Sciences, National Institutes of Health. The opinions, findings and conclusions expressed in this publication are solely those of the authors and do not necessarily reflect the official views of Baylor College of Medicine, or the sponsoring agency.

Authors: Barbara Z. Tharp, M.S., Judith Dresden, M.S., and Nancy P. Moreno, Ph.D.

Editor: James P. Denk

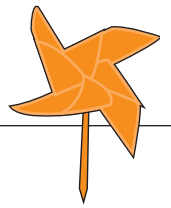
Design: Martha S. Young

Illustrations: T Lewis and Martha S. Young



Center for Educational Outreach
Baylor College of Medicine
One Baylor Plaza, MS: BCM411
Houston, Texas 77030
713.798.8200 / 800.798.8244
www.bioedonline.org | k8science.org | www.bcm.edu/edoutreach

Word Meaning/Context Clues

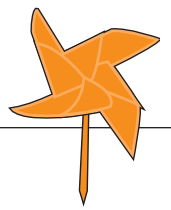


1. **Tub of Words.** Find the word in the tub that fits best in each blank space below. Write the correct words in the blanks. Use each word only once.

- a. That _____ is the craziest looking machine I ever saw!
- b. What happens to a house heated by _____ power if the sun doesn't shine for a week?
- c. This tunnel into the mine is blocked, so you'll have to use the other _____.
- d. This _____ shows the whole skeleton of a fish that died and was buried under the sea a million years ago.
- e. If you eat nothing but candy and other things without many _____, you won't stay healthy.
- f. Gasoline is the _____ most often used to make cars go.
- g. Burning fuels that release carbon dioxide changes the _____ of the Earth.
- h. It's warm most of the time in Florida, but Michigan has a cold _____.



Word Meaning/Context Clues (cont.)



2. Now choose any four of the words you have just used, and write a definition for each one. Here are the words.

atmosphere

solar

climate

nutrients

shaft

fossil

contraption

fuel

a. _____

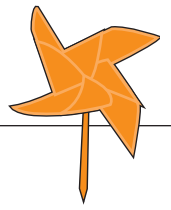
b. _____

c. _____

d. _____



Word Meaning/Context Clues (cont.)



3. **Many Meanings.** A word can have more than one meaning. Look at the different meanings for **mine** and **racket**. Then pick the meaning of those words that fits best in each sentence. Write its number next to the sentence.

mine

1. an underground hole or tunnel from which minerals (like coal, iron or silver) can be taken
2. an explosive device that can be placed in the ground or water
3. something that belongs to me

_____ The soldiers were careful not to step on a land mine.

_____ This book is mine.

_____ They had little wagons to carry coal out of the mine.



racket

1. a device that has a frame with tightly laced strings and a handle, used to hit the ball in a game of tennis
2. a loud, unpleasant, clattering sort of noise
3. a dishonest scheme for getting money

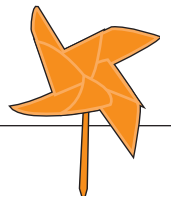
_____ What is all that racket up on the roof?

_____ The man looked honest, but his business was really a racket to cheat people out of their money.

_____ Don't forget to bring your tennis racket to the park.



Word Meaning/Context Clues (cont.)



4. **Mr. Slaptail’s Curious Crossword Puzzle.** All of the words in this crossword puzzle are in the story, *Mr. Slaptail’s Curious Contraption*.

Across

1. Interesting because it is so unusual; wondering
6. The kinds of weather places usually have
7. A greasy liquid that often is used for fuel
8. Force; energy that can be used for doing work
9. Not out, but _____
11. Black powder made when something burns
14. A toy with a part that spins in the wind; Rosie made one
16. A black, solid substance formed in the Earth long ago
17. To change or destroy with fire or heat
18. A substance that is not solid or liquid



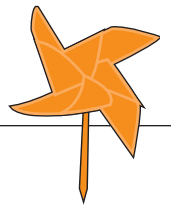
Down

1. A strange-looking gadget
2. Animals similar to mice; a word Riff uses when he’s mad
3. Light from the sun
4. Coming from or related to the sun
5. A cloud rising from something that’s burning
10. At the present time
11. Not very sensible; ridiculous; foolish
12. Not us, but ____
13. Mr. Otterbee’s first name
15. Power that can be used to do physical work or provide heat

										1	c	u	2	r	i	o	u	3	s
				4.							o								
							5				n								
				6							t						7		
											r								
											a								
											8	p							
											t								
											9	i	10						
											11	o		12					
				13														15	
											16								
				17														18	



Sequence of Events



1. Read the chapter, “Off to the Coal Mine,” on pages 12–15. Which one of the three things below happened FIRST in that chapter? Write 1 next to it. Then write 2 by the event that happened next, and 3 by the one that happened last.

_____ They called Beulah Diggerpaw’s name, but there was no answer.

_____ Everyone got into Oscar Otterbee’s old truck.

_____ They learned that there had been an explosion and part of the mine had caved in.

2. After you have read the whole story, find the event below that happened LAST. Write 4 next to it. Then write the numbers 1, 2 and 3 to show the order in which the other events happened.

_____ Rosie made a pinwheel that worked like a real windmill.

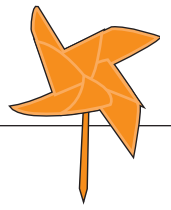
_____ Ms. Diggerpaw decided never to go into the mine again.

_____ Mr. Slaptail built a contraption to heat water on his roof.

_____ A dark cloud of smoke rose in the air.



Cause and Effect Relationships



Write your answer to each question.

1. Why did the neighbors stop in front of Mr. Slaptail's house?

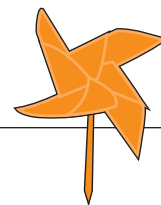
2. What could Mr. Slaptail do because he had "greenhouse" windows?



3. Why did Beulah Diggerpaw decide to shut down her coal mine? (Give at least two reasons.)

4. What happened in Bright Water Corners because the coal mine was going to close?

Details and Supporting Ideas



1. At the beginning of the story, Riff and Rosie went to Mr. Slaptail's house. In your own words, write down what they saw there. Tell who, where and what. Include as many details as you can.



2. What time of year was it when this story took place? Circle your answer and list the reasons you think so.

I think this story took place in (circle one) **spring summer fall winter** because

a. _____

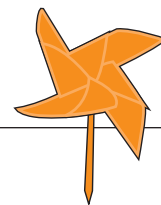
b. _____

c. _____

d. _____



Details and Supporting Ideas (cont.)

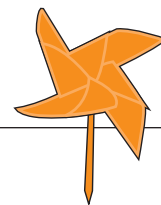


3. Think about the characters in the story *Mr. Slaptail's Curious Contraption*. Choose your favorite. Tell why you like that character the best, giving as many reasons as you can.

My favorite character in the story is_____.

That is because





1. **Choosing the Main Idea.** Look at the yellow box on page 12 in the story book. Which sentence below best tells the main idea of this Science Box? Fill in the circle by your answer.

- Did you know that burning is a chemical reaction?
- When something like fossil fuels or wood burns, it uses oxygen.
- A fuel is something we can burn to produce energy.
- When a fuel doesn't burn completely, it can make black smoke or soot.

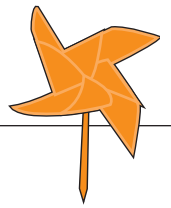
2. Look at the yellow box on page 27. Which sentence below best tells the main idea? Fill in the circle by your answer.

- We don't always need to use fossil fuels.
- We can save fuels by riding a bicycle, walking, taking a bus or sharing rides.
- We can use the power of water to make electricity.
- Did you know that plastics come from fossil fuels?

3. Write one sentence that tells the main idea of the story, *Mr. Slaptail's Curious Contraption*.



Summarizing



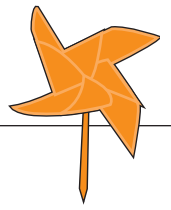
1. Pretend that you are Rosie. Write a letter to a friend telling about Mr. Slaptail's contraption. What did it look like? How did it work? Why did he build it?



2. The citizens of Bright Water Corners thought of many ways to supply the town with energy, without burning coal. Name as many ways as you can.



Fact and Opinion



Following Written Directions

Facts are true. Opinions are what someone thinks, but they might not be true. Based on the story, tell whether you think each of these sentences states a fact or an opinion. Write F or O in each space. (Look back in the story if you need to.)

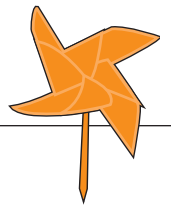
- _____ Mr. Slaptail has lost his mind for sure. (page 3)
- _____ Mr. Slaptail was building a submarine on top of his house. (page 4)
- _____ With his solar water heater, Mr. Slaptail won't have to have a fire to get hot water anymore. (page 8)
- _____ Mr. Slaptail can grow lemons in his house during the cold winter. (page 9)
- _____ Ms. Diggerpaw can't shut down the mine because everyone has to have coal for heat and for cooking. (page 22)
- _____ Everybody could use power from the sun. (page 23)
- _____ The solar water heater is a crazy idea that won't really work. (pages 23 and 24)
- _____ Mr. Blackduck's Grandpa used the wind for energy. (page 27)
- _____ Bright Water Corners is going to be super-energy city. (page 27)

Following Written Directions

Follow the directions on pages 32 and 33 to make a pinwheel. Work with a partner to make a pinwheel together the first time, and then make and decorate your own pinwheel.



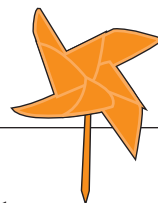
Inferences, Generalizations and Conclusions



1. Fill in the circle by the word that best answers each question.
 - a. At the beginning of the story, the neighbors thought Mr. Slaptail was _____ for building a contraption on his roof.
 - smart
 - friendly
 - crazy
 - angry
 - b. How do you think Riff and Rosie felt when they heard a loud BOOM and saw smoke in the distance?
 - excited
 - worried
 - happy
 - angry
 - c. How did Mr. Slaptail feel when he said, “There’s an old entrance on the other side of the mine Maybe we could get in that way.”?
 - frightened
 - angry
 - sad
 - hopeful
 - d. How did Ms. Diggerpaw feel about having to close down her coal mine?
 - frightened
 - excited
 - sad
 - happy



Inferences, Generalizations and Conclusions (cont.)



2. After you have read *Mister Slaptail's Curious Contraption*, decide whether you think each of these sentences is True or False. Mark T or F on the line by each sentence. If you decide a sentence is false (it does not state a logical conclusion from the story), rewrite it below to make it a true statement.

_____ Mr. Slaptail is a clever inventor.

_____ Without the sun, there would be no life on Earth.

_____ When coal is used up, it is easy to make more.

_____ Carbon dioxide is needed to hold heat near the surface of our planet.

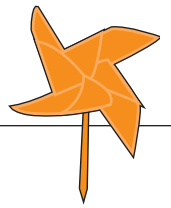
_____ Nothing we do changes the atmosphere around the Earth.

_____ Beulah Diggerpaw is too old to work anymore.



3. Rewrite False sentences to make them true.

Predicting Probable Outcomes



1. What do you think will happen after this story ends? Choose which ending of each pair you think is most likely. Mark it with an **X**.

_____ The people of Bright Water Corners will find it is too hard to do without coal. They will go to Carbon Mountain to get coal.

OR

_____ The people will keep using new energy sources like windmills and the sun, and they will notice that their air is cleaner.

_____ Riff will decide that he doesn't like visiting Bright Water Corners in the summer, and he will not come back next year.

OR

_____ Riff and Rosie will continue working and learning with Mr. Slaptail in the summers.

_____ Mr. Slaptail will discover many more things that can run on solar power, and he will make other energy-saving inventions.

OR

_____ Mr. Slaptail will decide that all of these inventions are boring, and he will go back to his old ways.

2. What else do you think might happen in Bright Water Corners after they have changed the ways they get energy? Write a paragraph, telling what you predict.

