

# EDUCATORS' GUIDE

## MAGIC TREE HOUSE®

# MERLIN MISSIONS

### ***Dark day in the Deep Sea and Sea Monsters:***

*A Nonfiction Companion to Dark Day in the Deep Sea*



PB: 978-0-375-83732-6  
EL: 978-0-375-89461-9  
Grades: 2–5  
F&P: N • Lexile: 520L

#### **ABOUT *Dark Day in the Deep Sea***

Jack and Annie continue their quest for the secrets of happiness—secrets they need if they're going to save Merlin. But when the magic tree house leads them to a tiny

deserted island in the middle of the ocean, they're not sure who needs help more—Merlin or themselves! The brother and sister team are soon rescued by a ship of explorers and scientists. But the crew isn't looking for the secrets of happiness. The crew is looking for . . . a sea monster!



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#### **ABOUT *Sea Monsters*:**

*A Nonfiction Companion to Dark Day in the Deep Sea*

How are an octopus and a squid different? What kinds of creatures live in the deepest abyss of the ocean? What do scientists say some legendary sea monsters really are? Find out the answers to these questions and more in this Fact Tracker.

## CLASSROOM CONNECTIONS

### **ACTIVITIES FOR *Dark Day in the Deep Sea***

#### **Thesaurus**

Have the class create a thesaurus for words used in *Dark Day in the Deep Sea*. Some of the commonly misunderstood words are listed below, and there are a few options as to how to present this task to students:

**SIMPLE:** Prior to reading, give students the basic words on the left. Have them work in groups to list at least three thesaurus entries to go along with each starter word. (You can have students actually use a thesaurus if this

is difficult to do based on prior knowledge.) While reading *Dark Day in the Deep Sea*, point out the more complex words (sorrow, gawking, etc.) and have the students record them with the starter words.

**MORE COMPLEX:** Prior to reading, give students the basic words on the left. Allow them to list as many thesaurus options for the simple words. Challenge them to find complex words in *Dark Day in the Deep Sea* that could be added to the thesaurus they've started. This can be broken down into more manageable parts by doing this one chapter at a time.



| BASIC WORD | COMPLEX WORD USED IN THE BOOK |
|------------|-------------------------------|
| Sadness    | sorrow                        |
| Stare      | gawking                       |
| Humor      | wit                           |
| See        | glimpse                       |
| Allowed    | permissible                   |
| Trip       | expedition                    |
| Walk       | strode                        |
| Speech     | lecture                       |
| Confused   | baffled                       |
| Change     | converted                     |

## Glossary

Create a class glossary to define the following words used in *Dark Day in the Deep Sea*: dredging, grudgingly, capsize, vigorously, nausea, species/specimen, squall, wardroom, scurvy, and harpoon.

To add complexity, offer to let students define these words using context clues instead of defining the words for them. Have students check their context-clue guesses with the actual definition of the words above.

## Personification

Highlight the uses of personification in *Dark Day in the Deep Sea*. Have students find more examples of personification in the text or in other reading material. Give them the opportunity to find and illustrate the personification examples. This could be an illustration of the waves rising and falling, or a wave actually holding a hammer. . .

### EXAMPLES FROM *Dark Day in the Deep Sea*:

“The wind was screaming.” (p. 60)

“but the waves kept hammering him.” (p. 62)

## DISCUSSION QUESTIONS/WRITING PROMPTS

Jack and Annie learn to conquer fear through knowledge, or through compassion. Give an example of how you have conquered fear through knowledge. Give an example of how you have conquered fear through compassion. Do you think one way to conquer fear is better than the other?

What do you think would have happened if Jack had not been seasick during the storm?

## **ACTIVITIES FOR *Sea Monsters*:** *A Nonfiction Companion to Dark Day in the Deep Sea*

### **Vocabulary**

Here are words to teach before students read *Sea Monsters* or to highlight while they are reading: carnivore, nocturnal, marine, prey, hoax, and legend

## **DISCUSSION QUESTIONS/WRITING PROMPTS**

### **Knowledge**

How do giant squids propel themselves?

What have we yet to discover about the colossal squid?

What causes trenches in the ocean floor?

### **Comprehension**

How do scientists find out about marine animals that are no longer living?

How did Dr. William Beebe record what he saw when he was in the bathysphere?

What is Jacques Cousteau remembered for?

What animals use bioluminescence? What do they use it for?

What is a legend?

### **Application**

Are there any other animals or machines that propel themselves through the water like a giant squid?

### **Analysis**

Compare and contrast a squid and an octopus. (Students could use a Venn diagram to organize points.)

How can we tell if the stories of sea creatures from the past are reputable-that we should believe them-or not? What criteria should be used when making these kinds of decisions?

Do you think sea monsters actually exist? What reasons do you have to support your opinion?

### **Synthesis**

Give an example to support or refute Cousteau's quote, "People protect what they love."

### **Evaluation**

Is it okay to study animals if it causes them to die in the process?

### **Storytelling**

Explain how rumors begin and grow by telling the story of an imaginary sighting of an unfamiliar animal as a group. Each child adds a sentence to the story aloud. This may be a good point for discussion in the classroom about how people can easily create gossip that may or may not be true.

### **Math**

As a class, calculate the expenses associated with a deep-sea expedition to find out more about the creatures that live in the ocean. Next create an opportunity for students to test the method used by scientists in measuring the depth of the ocean. To accomplish this, have students create a sort of fishing pole by cutting a long piece of string, tying it to the end



of a stick, and tying a small weighted object to the other end of the string. Then ask students to measure the string as closely as possible from the tip of the stick to the bottom of the weighted object. Tip a table over on its side (it must be tall enough that the people performing the demonstration wouldn't be able to see over it). Set several different boxes on the other side of the table to create different "depths" to measure. To measure each depth, students should lower their poles over the table until they reach the "ocean floor," and then subtract the length of string that stays "above water" (above the table) from the full length of the string. Have students record their measurements on a chart and compare their results to the actual depth measurements, which they can find using a ruler. This activity can be conducted as a teacher-led demonstration, or as a problem-solving puzzle for students to solve on their own.

### Writing

Let students choose one of the following writing activities:

A "sea monster sighting" newspaper

A day in the life of a specific sea creature from the book

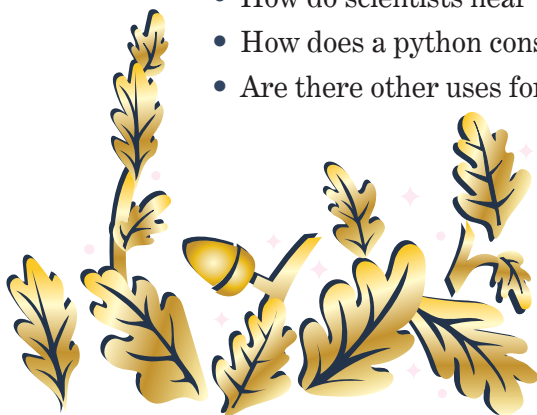
A Little Red Riding Hood-type story with a marine creature instead of a wolf. Students should include details on the size of the animal's body and its specialized characteristics. As an extension activity, have students portray these details through a puppet show, an auditory presentation, or a comic-style drawing with speech bubbles.

### Art

Using the descriptions provided in *Sea Monsters*, set the students to task creating their own 3-D version of a sea creature. You may choose to require students to create animals to scale, or add their imagination to the task, as not all animals are well known, even to aquatic explorers and scientists. The piecemeal information we know about sea creatures often leaves us feeling like Picasso. Using images of Picasso's work, challenge the students to create a sea monster in the spirit of Picasso on paper.

## QUESTIONS FOR FURTHER EXPLORATION

- What defines a reptile?
- What do we call mapmakers? Is there a fancy name for their job?
- How exactly do scientists measure the depth of the ocean?
- Four hundred years ago, people drew what they thought the ocean floor looked like. Based on that drawing, make an educated guess: what ocean might they be mapping? Do you think any of the items shown on the map actually exist?
- Why do different animals live at different depths of the ocean?
- Do people swim in the ocean today like Jacques Cousteau did years ago?
  - How do scientists hear underwater animals?
  - How does a python consume its prey?
  - Are there other uses for water propulsion besides what is mentioned in the book?
- How do diving and snorkeling differ?



*Teaching ideas provided by Beth Fawley, the 2006 Magic Tree House Educator of the Year, who is the K-12 Gifted and Talented Coordinator at Columbia Heights Public Schools in Minnesota.*