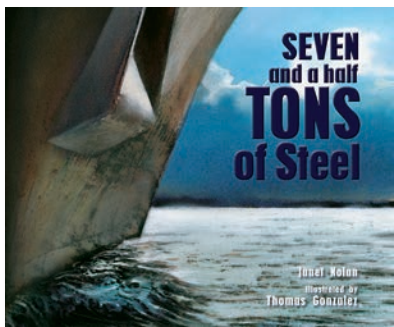


# TEACHER'S GUIDE



## Seven and a Half Tons of Steel

Written by Janet Nolan | Illustrated by Thomas Gonzalez

HC: 978-1-56145-912-4

Ages 6–10 | Informational  
Lexile • F&P • GRL Q: Gr 4

### ABOUT THE BOOK

Something remarkable emerges from a devastating event in this powerful post-9/11 story.

There is a ship, a navy ship. It is called the USS *New York*. It is big like other navy ships, and it sails like other navy ships, but there is something special about the USS *New York*.

Following the events of September 11, 2001, a beam from the World Trade Center was given to the United States Navy. The beam was driven from New York to a foundry in Louisiana. Metal workers heated the beam to a high, high temperature. Chippers and grinders, painters and polishers worked on the beam for months.

And then, seven and a half tons of steel, which had once been a beam in the World Trade Center, became a navy ship's bow.

### THEMES

Hope | Patriotism | Honor | Survivors | Resilience

### BEFORE YOU READ

As a group, use the following pre-reading discussion questions to spark interest in the book.

- Describe the front cover. Identify the large structure featured on the left of the illustration.
- Consider the setting depicted on the cover. Where do you think the story will take place? Explain your answer.
- Try to imagine how heavy seven and a half tons of steel might be. For example, if one ton weighs 2000 pounds, then 7 ½ tons weigh 15,000 pounds, which is equivalent to the weight of 6 average-sized elephants, 4 empty train cars, or 750 bicycles! Determine the connection between 7 ½ tons of steel and the illustration featured on the front cover.

### AFTER YOU READ

Use the following images and quotes from the book as post-reading discussion questions.

- Look at the illustration depicting the boy holding a baseball glove looking at an airplane flying in the sky.
  - Who is the boy in the illustration? Predict his thoughts. Describe his feelings.
  - Determine what the two rectangular shapes behind him represent. How do you know?

### MEETING THE STANDARDS

The activities in this guide directly address a variety of standards across the curriculum. For a complete list of the Common Core English Language Arts Standards addressed, please see pages 15–17.

- Explain how this illustration connects with the steel used to construct the bow of the USS *New York*.
- Consider the full spread illustration set in a traffic-jammed city street.
  - Explain the action depicted in the rearview mirror featured at the lower right of the spread.
  - Contrast the illustration of crowded city street with that of the boy carrying a baseball glove on the front endpaper. Discuss ways that the two are different.
  - List ways that the two are the same.
  - How does this illustration of a crowded city street help introduce the story?
- **“They lit candles and left handwritten notes to decorate a place now called Ground Zero.”**
  - Discuss what you know about Ground Zero.
  - Explain why people decorated the place where the buildings collapsed.
  - Study the girl’s expression in the spread featuring a collection of stuffed animals, a flag, and candles. Describe her feelings. Explain why she feels this way.
- **“Once a beam, but now a bow...”**
  - Consider the transformation of the steel from a beam to a bow. As a beam, it supported the building, keeping it strong and safe. What do you know about building construction and the importance of strong support beams?
  - The definition of a bow of a ship is “the forward part of the hull of a ship.” The bow leads the ship. It points the direction in which the ship will travel. Discuss why using the steel from the World Trade Center was used to construct this particular part of the ship, rather than any other.
- **“The USS New York was going home.”**
  - Define the word “home.” What does home mean to you?
  - The USS *New York* was built in a foundry in Louisiana, and yet returning to New York City is considered to be going home. Explain why this is so.
  - Imagine the bow of this ship, constructed by steel taken from the World Trade Center, cutting through vast bodies of water heading back to Ground Zero. Describe how exciting that experience must have been.
- **“People came from all over the country and around the world to see the ship that bore the crest “Never Forget.”**
  - Discuss why people from all around the world came to New York for the tenth anniversary of 9/11. Explain why they felt it was important to be there at that time.
  - Locate the Statue of Liberty in the illustration. The word liberty means freedom, determination, and opportunity. Determine how the word liberty connects with the theme of this story.
  - Consider the words featured on the USS *New York*’s crest “Never Forget.” Discuss why it is important to never forget the events that took place on at the World Trade Center on September 11, 2001.
  - The word honor means courage, respect, and appreciate. The word survivor is defined as withstand, to carry on, and to stay alive. Use these definitions to explore reasons why the words “Never Forget” represent the spirit of the USS *New York*.
- Consider the endpapers at the end of the book. Look at the illustration depicting a hand holding a torch in the far left and an approaching ship in the right.
  - Identify the hand holding the torch. What is the name of the statue the drawing represents? Where is the statue located?
  - Explain where the USS *New York* is headed and why.
  - Refer to the endpapers and introductory spreads at the beginning of the book. that of the boy with the baseball glove and the crowded city street. Discuss how the illustrations found in the beginning of the book connect with the endpapers and crash at the story’s end.

### ACTIVITY WORKSHEETS

The following activity worksheets are included in this guide:

- Crossword Puzzle
- Crossword Puzzle Answer Key
- Phrase Matching
- Phrase Matching Answer Key
- Double Puzzle
- Double Puzzle Answer Key
- Timeline for the Construction of the USS *New York*

## REVIEWS

"A deeply felt but not overwrought telling of a story that will be new to most young readers."

—**Kirkus Reviews**

"Gonzalez's breathtaking spreads dazzle... The emphasis is not on damage and destruction, but on America's power to recover. Teachers and parents looking for picture books that celebrate the nation and its military will welcome Nolan and Gonzalez's work."

—**Publishers Weekly**

"This beautiful, sober, and hopeful recounting of a difficult chapter in American history is a stellar addition to history collections."

—**School Library Journal**

"Nolan's recounting of the ship's journey back to New York for the 10th anniversary of 9/11 is reverent, as is her handling of the terror that spawned it. Gonzalez's cinematic illustrations capture a wide range of emotions with grandeur and warmth.... This is a stirring tribute."

—**BookPage**

"Nolan's straightforward and informative text perfectly complements Gonzalez's beautiful full-page illustrations to capture the enormity of the transformation.... This earnest picture book will help put the events of 9/11 in context for children too young to remember it themselves."

—**Booklist Online**

"This is a great book for the power of its story and images, as well as for sharing an important time in American history."

—**School Library Connection**

## AWARDS

- Illinois Reads (Grades 3–5) —Illinois Reading Council
- Horned Toad Tales (Nominee) —Cypress Fairbanks Independent School District
- Great Lakes Great Books Award (Nominee, Grades 2–3) —Michigan Reading Association

## ABOUT THE AUTHOR

Janet Nolan, a lifelong lover of books and a seeker of good stories, is the author of fiction, nonfiction, and historical fiction picture books, including *PB & J Hooray! Your Sandwich's Amazing Journey from Farm to Table* and *The Firehouse Light*. She considers it an honor to have written *Seven and a Half Tons of Steel*.

Janet holds a BA from The Evergreen State College and a master's degree from the University of Illinois at Chicago. She is a member of the Society of Children's Book Writers and Illustrators (SCBWI). The mother of two adult children, she lives outside Chicago with her husband and their dog, Ladybug.

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## ABOUT THE ILLUSTRATOR

Thomas Gonzalez was born in Havana, Cuba, and moved to the United States as a child. An artist and painter, he directed campaigns for clients such as Coca-Cola, Delta Airlines, NASCAR, the NFL, and McDonald's. Gonzalez lives in Georgia.

[www.tomprints.com](http://www.tomprints.com)

Peachtree Teacher's Guide for  
**SEVEN AND A HALF TONS OF STEEL**

prepared by Debbie Gonzales

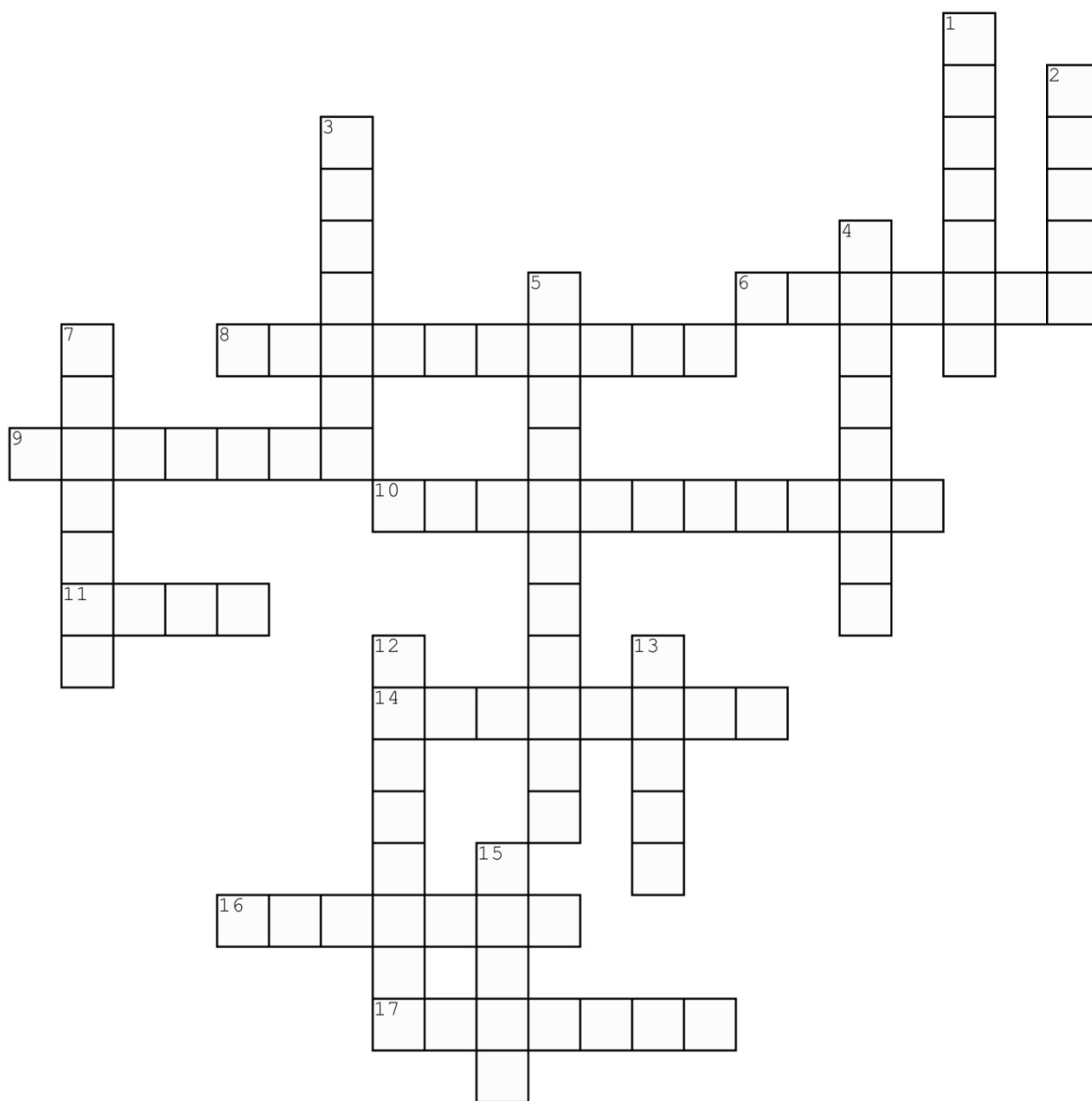
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## CROSSWORD PUZZLE



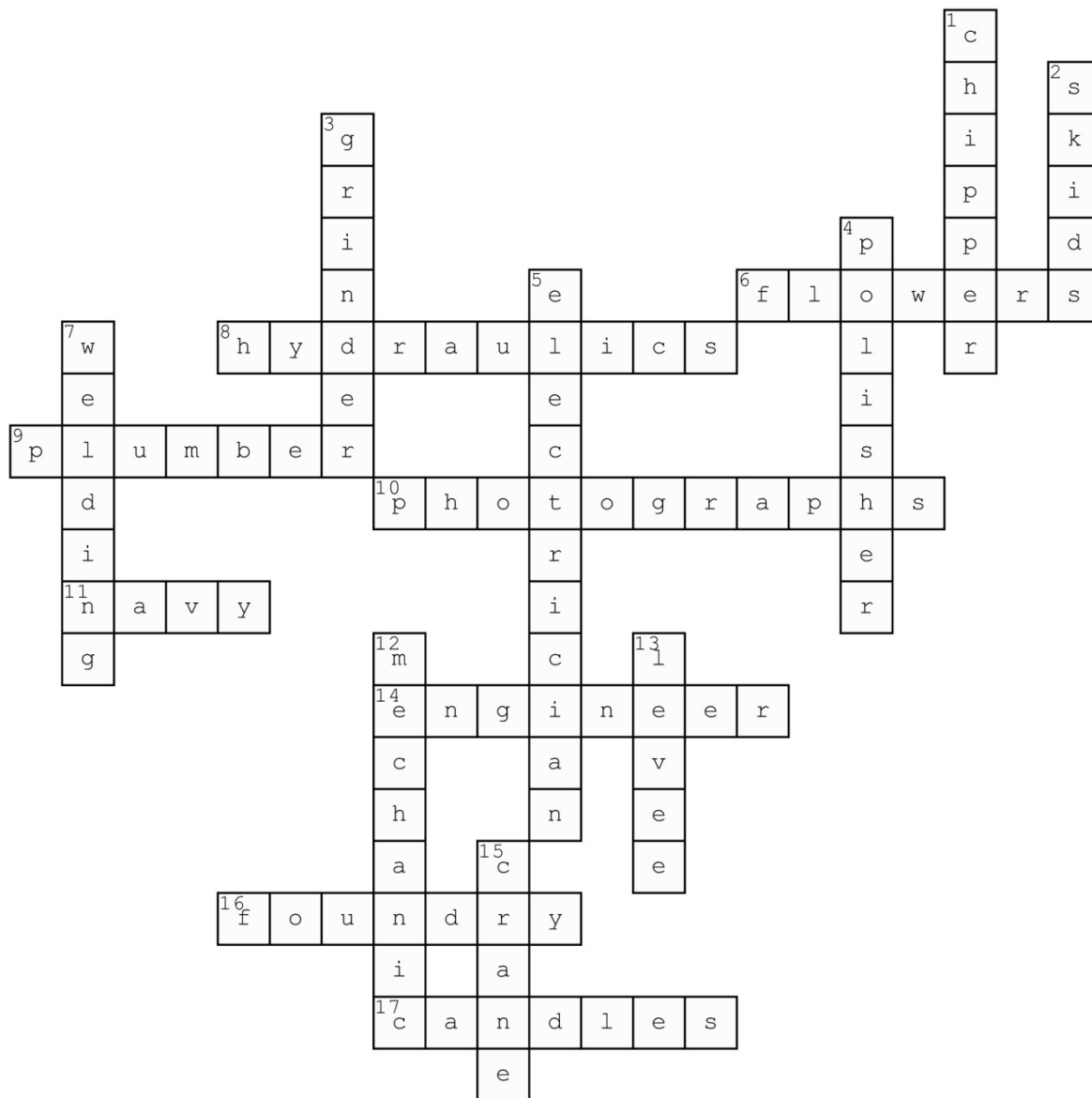
### ACROSS

- 6.** Brought by people at Ground Zero
- 8.** Machinery operated by the force of very large pistons
- 9.** Installs and repairs pipes and plumbing
- 10.** Images brought to Ground Zero
- 11.** Military organization for sea warfare and defense
- 14.** Design, manufacture, and operate structures
- 16.** A place where metal is melted and poured into molds
- 17.** Lit by people at Ground Zero

### DOWN

- 1.** Chips or cuts steel
- 2.** Planks or timber used to slide or roll heavy objects
- 3.** Grinds and sharpens steel
- 4.** Polishes steel
- 5.** Install, maintain, repair, or operate electrical equipment
- 7.** Uses heat and pressure to join metal pieces together
- 12.** Worker skilled in making, using, or repairing machines
- 13.** An embankment to prevent a river from overflowing
- 15.** Machine for hoisting and moving heavy objects

## CROSSWORD PUZZLE ANSWERS



### ACROSS

- 6. Brought by people at Ground Zero
- 8. Machinery operated by the force of very large pistons
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## PHRASE MATCHING



### The Crest of the USS New York

Turn to spread titled **More about the USS New York**. Study the description of the symbolism represented in the crest listed there. Use the information given to solve the following matching exercise by writing the correct letter to each statement.

#### The crest features three colors:

- \_\_\_\_\_ 1. White
- \_\_\_\_\_ 2. Red
- \_\_\_\_\_ 3. Dark blue and gold

#### Special elements:

- \_\_\_\_\_ 4. Blue border
- \_\_\_\_\_ 5. Sunburst
- \_\_\_\_\_ 6. Mountain and lake, surrounded by maple leaves
- \_\_\_\_\_ 7. Crossed swords
- \_\_\_\_\_ 8. Gray bars
- \_\_\_\_\_ 9. Gray chevron
- \_\_\_\_\_ 10. Three stars
- \_\_\_\_\_ 11. Phoenix
- \_\_\_\_\_ 12. Red stripe on phoenix's shield
- \_\_\_\_\_ 13. Dark blue stripe on phoenix's shield
- \_\_\_\_\_ 14. Light blue stripe on phoenix's shield
- \_\_\_\_\_ 15. Red drops on phoenix's shield

#### Match these letters to the correct crest feature:

- a. battle stars earned by a previous USS New York during WWII
- b. the Navy and Marine Corps
- c. the bow of the ship
- d. the country's hope and determination
- e. purity and purpose
- f. blood and sacrifice
- g. the Statue of Liberty
- h. the Twin Towers
- i. the Port Authority of New York and New Jersey
- j. the sea and excellence (Navy colors)
- k. sacrifice and valor
- l. The New York City Fire Department
- m. the New York City Police Department
- n. the New York State seal
- o. the state of New York



## PHRASE MATCHING ANSWERS



### The Crest of the USS New York

Turn to spread titled **More about the USS New York**. Study the description of the symbolism represented in the crest listed there. Use the information given to solve the following matching exercise by writing the correct letter to each statement.

#### The crest features three colors:

- E   1. White
- K   2. Red
- J   3. Dark blue and gold

#### Special elements:

- N   4. Blue border
- G   5. Sunburst
- O   6. Mountain and lake, surrounded by maple leaves
- B   7. Crossed swords
- H   8. Gray bars
- C   9. Gray chevron
- A   10. Three stars
- D   11. Phoenix
- L   12. Red stripe on phoenix's shield
- M   13. Dark blue stripe on phoenix's shield
- I   14. Light blue stripe on phoenix's shield
- F   15. Red drops on phoenix's shield

#### Match these letters to the correct crest feature:

- a. battle stars earned by a previous USS New York during WWII
- b. the Navy and Marine Corps
- c. the bow of the ship
- d. the country's hope and determination
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- h. the Twin Towers
- i. the Port Authority of New York and New Jersey
- j. the sea and excellence (Navy colors)
- k. sacrifice and valor
- l. The New York City Fire Department
- m. the New York City Police Department
- n. the New York State seal
- o. the state of New York

## DOUBLE PUZZLE

Unscramble each of the clue words. Use numeric codes as clues to discover the message at the bottom of the page. Answers for the double puzzle can be found on the following page.

TIWN SOTEWR

33	21	5	

13	30	28	29		

URGODN ZORE

6			12		

	32		

WOLDR TEADR NERCET

--	--	--	--	--

	31		11	

		7		10	

MESNIAR

					1	

NYVA

	18	27	

CAERAIM

	4	14	22	19		

UNHARCERI KATNARI

8	16	20		23		24	

	2					

AUNAILIOS

	9					25	

SIPSIMPIISS

		17							

SUS WEN RYKO

	2	

	26	

	15	3	

1	2	3	4	5	6	7	8

<b>F</b>					
	9	10	6	11	12

13	8	14	15	16	6	8	

					<b>F</b>			
17	18	19	20	21		22	23	24

25	26	27	28	29

<b>F</b>					
	30	31	6	32	33



## DOUBLE PUZZLE ANSWER KEY

TIWN SOTEWR

T	W	I	N	T	O	W	E	R	S
33	21	5		13	30	28	29		

URGODN ZORE

G	R	O	U	N	D	Z	E	R	O
6				12		32			

WOLDR TEADR NERCET

W	O	R	L	D	T	R	A	D	E	C	E	N	T	E	R
					31		11			7		10			

MESNIAR

M	A	R	I	N	E	S
						1

NYVA

N	A	V	Y
18	27		

CAERAIM

A	M	E	R	I	C	A
4	14	22	19			

UNHARCERI KATNARI

H	U	R	R	I	C	A	N	E	K	A	T	R	I	N	A
8	16	20		23		24			2						

AUNAILIOS

L	O	U	I	S	I	A	N	A
9						25		

SIPSIMPIISS

M	I	S	S	I	S	S	I	P	P	I
				17						

SUS WEN RYKO

U	S	S	N	E	W	Y	O	R	K
2			26			15	3		

S	T	R	E	N	G	T	H	F	O	R	G	E	D	T	H	R	O	U	G	H
1	2	3	4	5	6	7	8	9	10	6	11	12	13	8	14	15	16	6	8	

S	A	C	R	I	F	I	C	E
17	18	19	20	21	22	23	24	

N	E	V	E	R	F	O	R	G	E	T
25	26	27	28	29	30	31	6	32	33	

## TIMELINE FOR THE CONSTRUCTION OF THE USS NEW YORK

**OBJECTIVE:** To present and interpret key details of text in a visual manner.

### MATERIALS:

- *Seven and a Half Tons of Steel*
- Timeline Strips #1 and #2
- Timeline Tabs #1 and #2
- Tape
- Scissors
- Fine-tipped markers or colored pencils
- Writing paper

### PROCEDURE:

- Using scissors, trim around the borders of the Timeline Strips and Timeline Tabs.
- Using tape, construct the Timeline by securing strips together. Take care to secure the lower tab of strip #1 (2000–2002) behind the number 2003 on strip #2 (2003–2005) and the lower tab of strip #2 behind the 2006 on strip #3. Repeat process with the strips found on page 12 of this guide.
- Lay Timeline on flat surface.
- Match the dates printed on the Timeline Tabs close to the associated date along the Timeline and secure with tape.

### INTERPRETATION PROJECT IDEAS:

- Using *Seven and a Half Tons of Steel* as a reference, search through the book to find illustrations and text correlating with the information printed on the Timeline Tabs.
- Print blank Timeline Tabs. Use fine-tipped markers or colored pencils to illustrate the information printed on correlating printed Timeline Tabs. Arrange both sets of Tabs opposite one another along the Timeline.
- Research the parts of a navy ship. Using blank Timeline Tabs and markers, illustrate the ship's construction progression. Place illustrated tabs in the appropriate places along the Timeline.
- Review the information printed on the Timeline Tabs. Choose one that you consider to be the most remarkable one of all. Write a short informative essay stating the reasons why you feel this way. Illustrate your work.

**TIMELINE STRIPS #1**

2000

2001

2002

tab

2003

2004

2005

tab

2006

2007

2008

tab

## TIMELINE STRIPS #2

2009

2010

2011

---

tab

## TIMELINE TABS #1

On September 11, 2001, terrorists attacked the United States. On that day, two airplanes flew into two skyscrapers in the World Trade Center in New York, a place now known as Ground Zero.

**2001**

The bow stem is installed to the main hull of the ship.

**2005**

New York Governor, George Pataki requests that a navy ship be built in honor of the victims and first responders of 9/11. The Secretary of the Navy agreed that the ship should be named the USS *New York*.

**2002**

In August, Hurricane Katrina hits. The ship is not damaged, but many workers lose their homes. Kamp Katrina is established to house two hundred displaced workers.

**2005**

In December, trucks arrive in Staten Island to load the I-beam from Ground Zero. After being approved for strength, it is trucked to the Amite Foundry in Louisiana.

**2002**

The complete bow section is attached.

**2006**

In September at the Amite Foundry, the 24 tons of steel is melted down to seven and a half tons of usable steel. The steel is poured into a mold to make the bow stem. It takes four days for the metal to cool.

**2003**

In March, the USS *New York* was christened in a ceremony held at the Avondale Shipyard.

**2008**

On October 10, the keel is laid. This date signifies the beginning of the ship's construction.

**2004**

On August 21, The USS *New York* is delivered to the Navy. Sea trials commence before sailing to New York.

**2009**

**TIMELINE TABS #2 AND BLANK TIMELINE TABS**

On November 2, the USS *New York* arrives in New York Harbor. It passes the site of the World Trade Center. The American flag is dipped. There is a 21-gun salute.

**2009**

On November 7, the ship "Comes Alive" at a commissioning ceremony. The USS *New York* is now considered to be part of the Navy fleet.

**2009**

In September, the USS *New York* returns for the ten-year anniversary of 9/11.

**2011**

## COMMON CORE STATE STANDARDS ALIGNMENT

THE ACTIVITIES IN THIS GUIDE DIRECTLY ADDRESS THE FOLLOWING STANDARDS:

English Language Arts Standards » Reading: Informational Text		Discussion Questions	Crossword Puzzle	Phrase Matching	Double Puzzle	Timeline
CCSS.ELA-Literacy.RI.K.1	With prompting and support, ask and answer questions about key details in a text.	•	•	•	•	•
CCSS.ELA-Literacy.RI.K.2	With prompting and support, identify the main topic and retell key details of a text.	•				
CCSS.ELA-Literacy.RI.K.3	With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.	•				•
CCSS.ELA-Literacy.RI.K.4	With prompting and support, ask and answer questions about unknown words in a text.		•	•	•	
CCSS.ELA-Literacy.RI.K.5	Identify the front cover, back cover, and title page of a book.	•				
CCSS.ELA-Literacy.RI.K.7	With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).	•				•
CCSS.ELA-Literacy.RI.K.10	Actively engage in group reading activities with purpose and understanding.	•	•	•	•	•
CCSS.ELA-Literacy.RI.1.1	Ask and answer questions about key details in a text.	•	•	•	•	•
CCSS.ELA-Literacy.RI.1.2	Identify the main topic and retell key details of a text.	•				
CCSS.ELA-Literacy.RI.1.3	Describe the connection between two individuals, events, ideas, or pieces of information in a text.	•				•
CCSS.ELA-Literacy.RI.1.4	Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.		•	•	•	
CCSS.ELA-Literacy.RI.1.7	Use the illustrations and details in a text to describe its key ideas.	•				•
CCSS.ELA-Literacy.RI.1.10	With prompting and support, read informational texts appropriately complex for grade 1.	•	•	•	•	•
CCSS.ELA-Literacy.RI.2.1	Ask and answer such questions as <i>who</i> , <i>what</i> , <i>where</i> , <i>when</i> , <i>why</i> , and <i>how</i> to demonstrate understanding of key details in a text.	•				•
CCSS.ELA-Literacy.RI.2.3	Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.	•				•
CCSS.ELA-Literacy.RI.2.7	Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.	•				



## COMMON CORE STATE STANDARDS ALIGNMENT (CONTINUED)

English Language Arts Standards » Speaking & Listening		Discussion Questions	Crossword Puzzle	Phrase Matching	Double Puzzle	Timeline
CCSS.ELA-Literacy.SL.K.1	Participate in collaborative conversations with diverse partners about <i>kindergarten topics and texts</i> with peers and adults in small and larger groups.	•				•
CCSS.ELA-Literacy.SL.K.2	Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.	•	•	•	•	•
CCSS.ELA-Literacy.SL.K.3	Ask and answer questions in order to seek help, get information, or clarify something that is not understood.	•	•	•	•	•
CCSS.ELA-Literacy.SL.K.4	Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.	•				•
CCSS.ELA-Literacy.SL.K.5	Add drawings or other visual displays to descriptions as desired to provide additional detail.					•
CCSS.ELA-Literacy.SL.K.6	Speak audibly and express thoughts, feelings, and ideas clearly.	•	•	•	•	•
CCSS.ELA-Literacy.SL.1.1	Participate in collaborative conversations with diverse partners about <i>grade 1 topics and texts</i> with peers and adults in small and larger groups.	•	•	•	•	•
CCSS.ELA-Literacy.SL.1.2	Ask and answer questions about key details in a text read aloud or information presented orally or through other media.	•				•
CCSS.ELA-Literacy.SL.1.4	Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.	•				•
CCSS.ELA-Literacy.SL.1.5	Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings					•
CCSS.ELA-Literacy.SL.2.1	Participate in collaborative conversations with diverse partners about <i>grade 2 topics and texts</i> with peers and adults in small and larger groups.	•	•	•	•	•
CCSS.ELA-Literacy.SL.2.2	Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.	•				•

## COMMON CORE STATE STANDARDS ALIGNMENT (CONTINUED)

English Language Arts Standards » Writing		Discussion Questions	Crossword Puzzle	Phrase Matching	Double Puzzle	Timeline
CCSS.ELA-Literacy.W.K.3	Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.					●
CCSS.ELA-Literacy.W.K.5	With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed.					●
CCSS.ELA-Literacy.W.1.3	Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.					●
CCSS.ELA-Literacy.W.1.5	With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed.					●
CCSS.ELA-Literacy.W.2.3	Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.					●