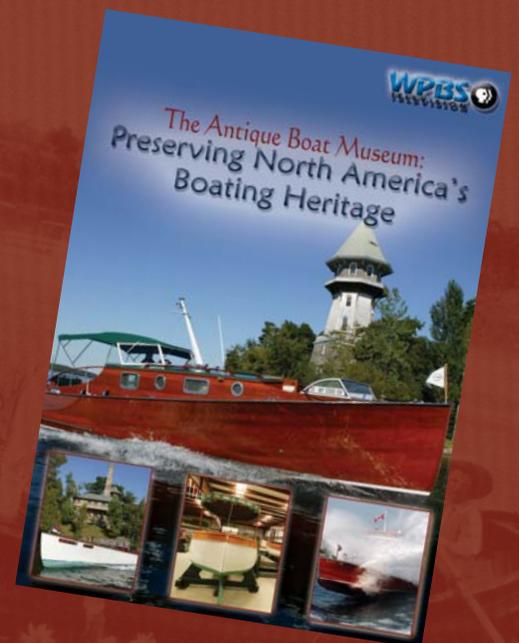


The Antique Boat Museum: Preserving North America's Boating Heritage



Teacher's Guide



About This Guide

This video describes the history of boating in the Thousand Islands, the birth of the museum, and the exhibits and activities available to museum visitors. By using the video and the lessons in this guide, students will uncover the historical events and people associated with the golden age of the region, explore how boat design varies with boating purposes, and discover what's being done to preserve antique boats, artifacts, and the skills associated with our maritime history.

Subjects & Grade Levels

The activities in this teaching guide are designed to use with students in grades 5 through 10 and cover topics in U.S. History, Geography, and Technology.

The Documentary

The Antique Boat Museum: Preserving North America's Boating Heritage can be divided into several segments that focus on different topics for different uses. Teachers are encouraged to select the segments that are directly relevant to their lesson and the grade level of the class—they need not use the entire program at one time. The topics and approximate time codes of each segment are:

00:00–11:37 1880s to post-World War II—The Golden Age of the Thousand Islands

11:37–19:04 The Golden Age declines, the rise of antique boat enthusiasts

19:04–end What to see and do at the Antique Boat Museum, 750 Mary Street, Clayton, NY



Background

The prosperity of the late 1800s saw the expansion of railroad service and tourists into the Thousand Islands region of New York State. The influx of newly wealthy industrialists to the area fueled the construction of grand hotels and summer cottages along the St. Lawrence River. As the country's socially elite, including those visiting the Thousand Islands, developed a taste for paddling and sailing, a new leisure-time activity was born: recreational boating. Since then, the sport of boating has evolved and boat design has specialized to meet the demands of many boating activities. The Antique Boat Museum (ABM) in Clayton, New York, preserves and celebrates the recreational boating heritage of North America, with an emphasis on the St. Lawrence River.

New York State Learning Standards

Social Studies Learning Standards

Standard 1 U.S. History: Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in the history of the United States and the State of New York.

Key Idea 1: The study of New York State and United States history requires an analysis of the development of American culture, its diversity and multicultural context, and the ways people are unified by many values, practices, and traditions.

Key Idea 2: Important ideas, social and cultural values, beliefs, and traditions from New York State and United States history illustrate the connections and interactions of people and events across time and from a variety of perspectives.

Key Idea 3: Study about the major social, political, economic, cultural, and religious developments in New York State and United States history involves learning about the important roles and contributions of individuals and groups.

Standard 3 Geography: Students will use a variety of intellectual skills to demonstrate their understanding of the geography of the interdependent world in which we live—local, national, and global—including the distribution of people, places, and environments over the Earth’s surface.

Key Idea 1: Geography can be divided into six essential elements which can be used to analyze important historic, geographic, economic, and environmental questions and issues. These six elements include: the world in spatial terms, places and regions, physical settings (including natural resources), human systems, environment and society, and the use of geography.

MST (Mathematics, Science, Technology) Learning Standards

Standard 4 Science—Physical Setting: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.

Key Idea 5: Energy and matter interact through forces that result in changes in motion.

Standard 5 Technology: Students will apply technological knowledge and skills to design, construct, use, and evaluate products and systems to satisfy human and environmental needs.

Key Idea 5—History and Evolution of Technology: Technology has been the driving force in the evolution of society from an agricultural to an industrial to an information base.

Key Idea 6—Impact of Technology: Technology can have positive and negative impacts on individuals, society, and the environment and humans have the capability and responsibility to constrain or promote technological development.

Social Studies Lesson: U.S. History and Geography

Overview

For this lesson on the history and technology of boating in the Thousand Islands region of New York and Canada, students will discuss the impact that transportation, a recession, and World War I had on the social and economic climate of the area. They will work together to research and create a timeline of the development of recreational boating as an American pastime, adding photographs, drawings, and other visual aids that highlight important events of the era.

Objectives

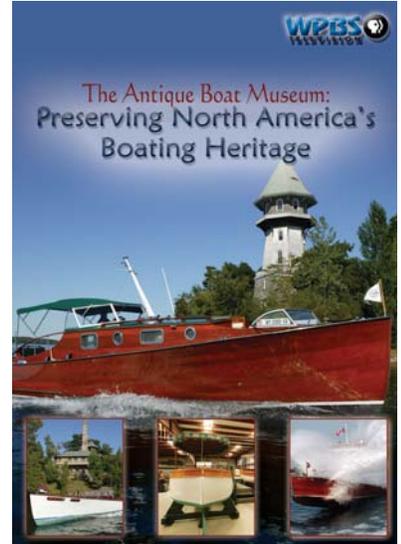
Students will trace the rise and fall of the Golden Age of the Thousand Islands in order to:

- explain how technological change affects people, places, and regions
- identify technological developments that have significantly accelerated human progress

- describe the connections between people and places
- describe how technology can have positive and negative effects on the way people live and work

Watch the Video

Have students view the first portion of the video *The Antique Boat Museum: Preserving North America's Boating Heritage* from approximate time codes **01:17 to 18:01** (stop the program after the narrator says "...from all regions of the North American continent, not just the Thousand Islands"). Encourage active viewing by pausing the video at selected times to underscore or clarify specific points about the history of the region.



“This was at the time when automobiles were rich men’s toys, and the rich men decided that the internal combustion engine on boats would also make great toys.”

-Paul Malo, Author

Social Studies Lesson: U.S. History and Geography

Post-Viewing Student Activity

Explain that the class is going to work in groups to design an informative timeline detailing the rise and fall of the Golden Age of the Thousand Islands and events leading up to the creation of the Antique Boat Museum.

1. Divide the class into small groups and assign each group one topic to research.
 - **Transportation:** The advent of the railroad to the Thousand Islands region
 - **Social Change:** The newly rich travel to the Thousand Islands, and famous people who visited and/or made homes in the region
 - **Leisure Pastimes:** The birth of recreational boating and the St. Lawrence Skiff
 - **Sports:** The start of boat racing, and the Gold Cup
 - **Economic Decline:** Factors that contributed to the languishing popularity of the region as a vacation spot
 - **The Antique Boat Museum (ABM):** The interest in antique boat restoration and collecting—how the ABM began
 2. Provide groups with time for research, either at a library or with Internet-capable computers, and instruct them to gather as much information about their topic as possible, including important dates. Some recommended Web sites and books are provided at the end of this guide to get students started, and you may wish to provide access to this video for review of important points covered in the narration.
 3. Groups should attempt to locate and download pictures or maps relevant to their topic (including proper citations crediting the source), or create their own images with computer imaging software (if available) or by hand.
 4. When research is complete, have the groups add information to a timeline you've created. (NOTE: This timeline can be as simple or as complex as you wish—you can draw a timeline on a bulletin board, create a large mural in a nearby hallway, or use software in a shared computer space if available.)
 5. Groups present what they've learned about their topics to the rest of the class in a culminating activity.
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Science and Technology Lesson

Overview

This lesson focuses on the scientific principles of force, matter, and motion that prompted the evolution of boat hull designs. Students will view portions of the video *The Antique Boat Museum: Preserving North America's Boating Heritage* that feature the different types of boat hulls designed for different boating purposes, create replicas of boats with different hull designs, conduct a simple test of the designs for speed and stability, and understand terminology associated with recreational boating.

Objectives

Students will research hull designs and then create small boats duplicating different designs described in the video in order to:

- determine how the shape of the hull affects movement and speed
- evaluate different hull designs to determine best uses for each
- compare the history, uses, and significance of different hull shapes in boating



Vocabulary

Students will need to have a working knowledge of the following vocabulary terms (provided in the order they are used in the video) before completing the activity for this lesson. Assign the words to be defined as a homework assignment, or discuss the terms and meanings as a class and play a game or give a quiz about the terms before beginning the next portion of the lesson.

- **Dugout**—a canoe made by hollowing out a tree trunk
- **Skiff**—any of various small boats propelled by oars, sails, or a motor
- **St. Lawrence skiff**—a double-ended lapstrake rowing craft developed for recreational fishing on the St. Lawrence River
- **Lapstrake**—having external planks overlapping downward (also called “clinker-built”)
- **Skiff-putt**—a larger St. Lawrence skiff with an inboard engine
- **Hull**—the main body of a boat, its walls and floor
- **Displacement hull**—a hull designed to push through the water
- **Launch**—an open or partially enclosed motor boat usually with a long foredeck
- **Cockpit**—the part of the boat in which the pilot sits
- **Internal combustion engine**—an engine in which the heat energy and conversion to mechanical energy all take place inside
- **Runabout**—a pleasure boat with one or more cockpits separated by decks and powered by an inboard or outboard motor
- **Planing hull**—a boat hull designed to lift the front of the boat so that it rides on top of water rather than pushing through it
- **Hydroplane**—a racing powerboat designed to skim over the surface of the water

Science and Technology Lesson

Materials

- Hull Design Worksheet, duplicated for each student
- Foam blocks (polystyrene or insulation foam), about 3"x6"x2", four for each small group
- Scissors or utility knives, four for each small group
- Water trough, filled 2/3 full of water (e.g., made from a rain gutter, a long aquarium tank, or even a long, narrow flowerpot sealed for leaks)
- Small battery-powered fan (about 2" diameter)
- Tape to attach the fan to the foam blocks (strong plastic tape preferred)
- Timer or watch with second hand

Types of Boats

Pass out the Hull Design Worksheet to students and tell them to use it to take notes as they watch the video. Cue the video The Antique Boat Museum: Preserving North America's Boating Heritage to approximate time code 05:10. (You should see a group of dugout and birch bark canoes in the museum, and the narrator begins by saying, "Life on the river gave rise to many different types of boats.") Begin showing the segment, pausing at the following (approximate) time codes to discuss and allow students to take notes:

1. **Time code 06:38:** Why was the skiff the most popular boat for this area before motors were invented? How is the skiff different than a canoe?
2. **Time code 07:26:** What is a "cockpit"? What does the term "displacement" mean?
3. **Time code 08:23:** Why did hull designs change? What does a planing hull do that is different than any other hull design used before?
4. **Time code 08:54:** What is the name of the trophy that boat racers try to win? Can you tell what type of hull the Dixie II has?

Fast forward to approximate time code 22:18 (you will see an image of the Gold Cup banner on screen) and show students more about the history of the Gold Cup race. Pause the video for the final discussion at:

5. **Time code 23:54:** What is the difference in speed of the Dixie II and the Miss Century 21 (formerly known as Miss Thriftway) craft? Look at the final hull design on your worksheet. How is a hydroplane hull different from the other designs? Why do you think it allows for a faster speed? What might be another difference between these two boats that probably accounts for the speed difference? (Students should consider the difference in engine designs between the earliest powerboats and engines today.)

Science and Technology Lesson

Student Activity

1. Create replicas of hull designs

Divide the class into groups of four students. Pass out four foam blocks and the scissors or utility knives to each group, and explain that they are going to test the design of the four hull shapes they learned about in the video. Each student in the group selects one hull design and carves a foam block to match the shape (NOTE: Follow proper safety measures).

2. Test hull designs for speed and stability

Have one group at a time bring their replicas to the water course. Attach the small fan to the flat-bottomed boat with strong tape. (NOTE: You may need to experiment to discover the best location for the fan without tipping the boat. Make sure the fan stays above water.) Turn the fan on and place the boat at one end of the water trough, starting the timer or marking the time on the watch. Measure the amount of time, in seconds, that it takes for the first boat to travel from the starting point across the course to a marked endpoint. Students in all groups should mark the time in the chart on their worksheet. Continue the activity for each boat created by the first group.

Continue the timed tests for each of the other groups, again making sure that all students record the times for the boats from all groups. When the last group has conducted the experiment, have students calculate the average time for each hull design to travel the course and mark the average speed on their sheets.

3. Discuss test results

Discuss the results of the timed tests of the hull designs, using the following questions to encourage deep understanding of the concepts.

- How well did each hull design handle the water?
- What might be done to the replicas to improve their performance?
- Which hull design appears to allow the best speed? Why?
- Which design appeared to be the most stable?
- Besides speed, what might be important to a boat owner?
- What are the advantages and disadvantages for each type of hull?
- Who would be most likely to select each of the hull types?

Antique Boat Museum Video Scavenger Hunt

Duplicate and distribute the Video Scavenger Hunt worksheets to students, and cue the video to approximate time code 19:04 (you will see an aerial view of the harbor where the museum is located). Explain that this portion of the video takes viewers on a tour of all ten buildings at the Antique Boat Museum, and museum personnel and boating enthusiasts will be sharing some of the highlights of the collection. As the students watch the segments, they should be on the lookout for the answers to the questions on their worksheets.

NOTE: For younger students, teachers may want to read through the questions for each building before showing the segment, and pause the video to allow time for writing the answers before moving on to the next segment. Approximate time codes for each building are printed on the worksheet.

Websites

The Antique Boat Museum
www.abm.org

American Power Boat Association
www.apba-racing.com/index.html

Visit 1000 Islands: Virtual Travel Guide
www.visit1000islands.com

**The New York Central and Hudson River
Railroad**
[www.lakemirabel.com/Railroad/
NewYorkCentralOriginal.html](http://www.lakemirabel.com/Railroad/NewYorkCentralOriginal.html)

**PBS Scientific American Frontiers “In the
Classroom - Science of Sports: Speed Sailing”**
(more complex experiments for testing hull
designs)
[www.pbs.org/safarchive/4_class/45_pguides/
pguide_405/4545_ss.html](http://www.pbs.org/safarchive/4_class/45_pguides/pguide_405/4545_ss.html)

The Detroit River Regatta Association site
contains information about the Gold Cup race
and its history
www.gold-cup.com

WPBS-TV’s History at the Helm
www.wpbstv.org/HistoryHelm/Home.htm



Photo: Jim Brown

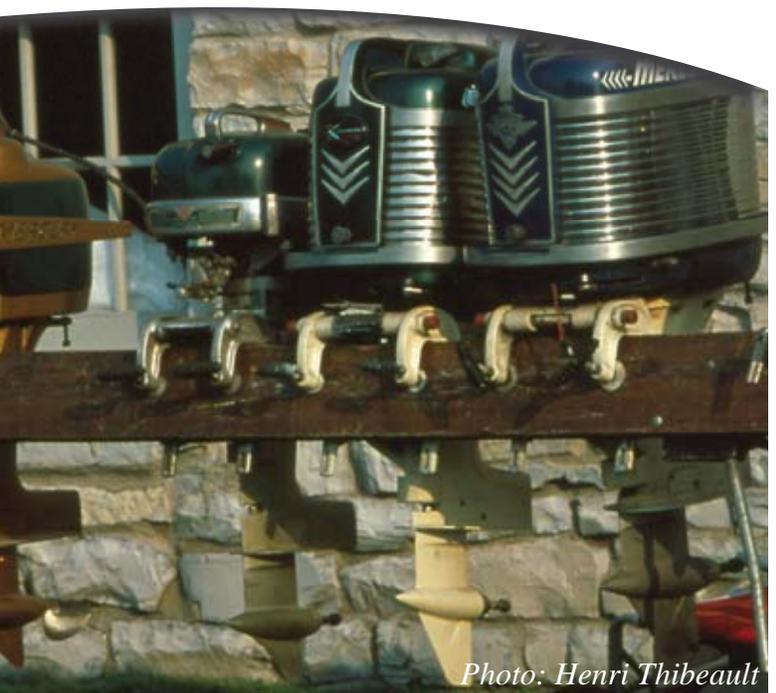


Photo: Henri Thibeault

Book List

Books by Paul Malo

- *Boldt Castle: In Search of the Lost Story*. Fulton, N.Y.: Laurentian Press, 2001.
- *Floating World: More People, Places, and Pastimes of the Thousand Islands*. Fulton, N.Y.: Laurentian Press, 2004.
- *Fools' Paradise: Remembering the Thousand Islands*. Fulton, N.Y.: Laurentian Press, 2003.

Books by Anthony S. Mollica, Jr.

- *American Wooden Runabout*. Osceola, WI: Motorbooks International, 2002.
- *Boats of the Antique Boat Museum: Highlights of the Watercraft Collection*. Clayton, N.Y.: Antique Boat Museum, 2006.
- *Chris-Craft Boats*. Osceola, WI: Motorbooks International, 2001.
- *Classic Boats of the Thousand Islands*. Erin, Ontario, Canada: Boston Mills Press, 2005.

- *Dodge Boats*. Osceola, WI: Motorbooks International, 2003.
- *Gar Wood Boats. Classics of a Golden Era*. Osceola, WI: Motorbooks International, 1999.

Other Books of Interest

- Corbin, Verda S. and Shane A. Hutchinson. *Images of America: New York—Clayton*. Mount Pleasant, S.C.: Arcadia Publishing, 1998.
- Fischer, George and Anthony S. Mollica, Jr. *Castles and Cottages: River Retreats of the Thousand Islands*. Erin, Ontario, Canada: Boston Mills Press, 2004.
- Leavy, Michael. *Images of Rail: The New York Central System*. Mount Pleasant, S.C.: Arcadia Publishing, 2006.
- Smith, Susan Weston. *The First Summer People: The Thousand Islands 1650–1910*. Erin, Ontario, Canada: Boston Mills Press, 1993.



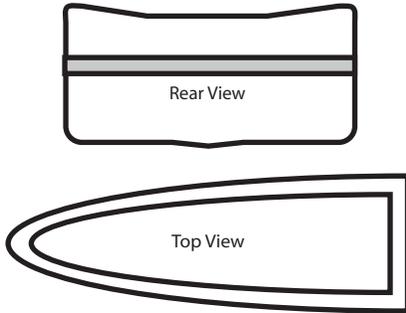
“One of the things that we’re very keen on is not just preserving the actual boats, but preserving the skills that go with them....”

-John Summers, Chief Curator
of the Antique Boat Museum

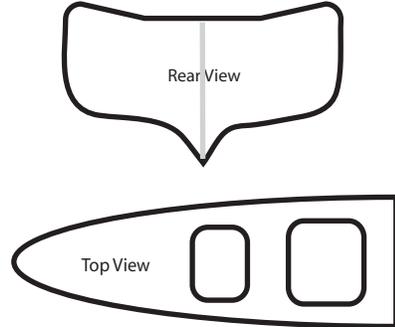
Hull Design Worksheet

Name: _____

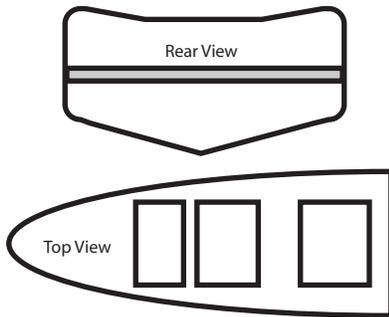
1. Flat-Bottomed



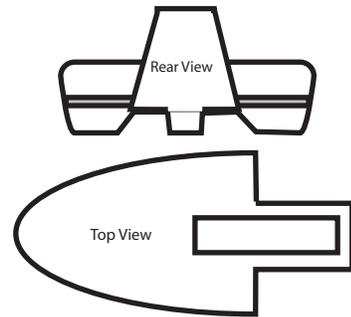
2. Displacement



3. Planing, or V-planed



4. 3 pt. Hydroplane



	Group 1	Group 2	Group 3	Group 4	Group 5	Average
Flat-Bottomed						
Displacement						
Planing						
Hydroplane						

Conclusions:

Antique Boat Museum - Video Scavenger Hunt

As you watch the video, be on the lookout for the answers to the following questions about interesting facts and artifacts that can be found at the Antique Boat Museum. (NOTE: Time codes are approximate.)

Name _____

Haxall Building (19:39–20:17)

1. Why do you think this building is called the “nerve center” of the museum?
2. What types of research studies can be conducted in the library?

Cleveland Dodge Launch Building (20:17–22:17)

3. From what type of wood are most of the antique boats in this exhibit made?
4. Why are launches called “floating sports cars”?
5. What is the length of the smallest boat in the Launch Building? The largest?
6. What is steamboat steering?

The Gold Cup Building (22:17–23:55)

7. Where did many of the motors for these antique racing boats come from?
8. When was the first Gold Cup awarded, and where was the race held?
9. In what year did Miss Thriftway (later known as Miss Century 21) win the Gold Cup? What was her top speed?

Outboard Motor Shed (23:55–24:24)

10. The museum contains the oldest known model of what type of motor?

The Boat Shop (24:24–25:19)

11. Name two types of classes you can take in the Boat Shop.
12. What does the museum hope to preserve with this area?

The Edward John Noble Historic Stone Building (25:19–26:13)

13. What was the original use for this historic building?
14. What special program is offered here?

The Pauline Morgan Dodge Small Craft Building, the Fred Thomas Skiff Livery, and the Adelaide S. Gaffney Skiff House (26:13–29:12)

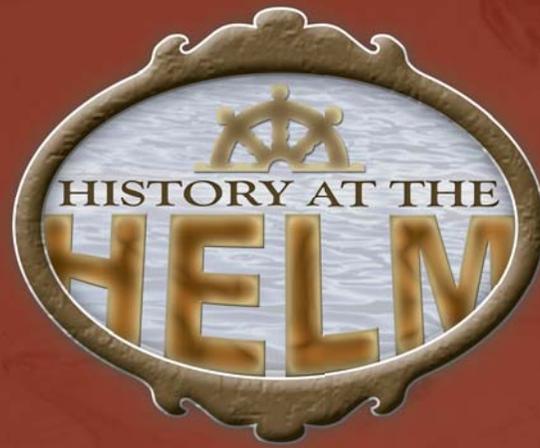
15. What types of boats are featured in these exhibits?
16. Why does it take a special knack to sail the St. Lawrence skiff?
17. What famous person’s custom-built skiff can be found at the museum?
18. What was so difficult about managing the first motorized skiffs?

A Hands-On Museum (29:12–30:14)

19. Explain in your own words why the Antique Boat Museum deserves to be called a “hands-on” museum.

Video Scavenger Hunt Answer Key

1. It houses the administrative offices, exhibits, video rooms, the gift shop, and the research facilities.
2. Research about the history of boating.
3. Mahogany
4. Owners wanted to be seen in them, and to show off their beauty and design.
5. Shortest: 16 feet; Longest: The Pardon Me is 48 feet long
6. The boat turns in the opposite direction from the turn of the wheel
7. Many motors were converted from war surplus aircraft engines.
8. 1904 in New York City—the Hudson River
9. 1959, with a top speed of 189 mph
10. The oldest known model of a gasoline-powered outboard motor
11. Engine repair, boat winterization, boat building, boat restoration, or refinishing
12. Preserving not just boats, but the skills that go with them
13. It was the machine shop for a shipbuilding operation that formerly stood here.
14. The Boatbuilder-in-Residence program
15. Boats powered by oar, paddle, and sail
16. The skiff operates without a rudder for steering.
17. President Ulysses S. Grant used it when he visited George Pullman.
18. The motors were directly connected to the propeller with no neutral gear.
19. Various answers apply: promote the use of boats on water; allow visitors to row a skiff; learn to sail; take a ride in a speedboat; offer many programs in boatbuilding, restoration, engine repair, etc.

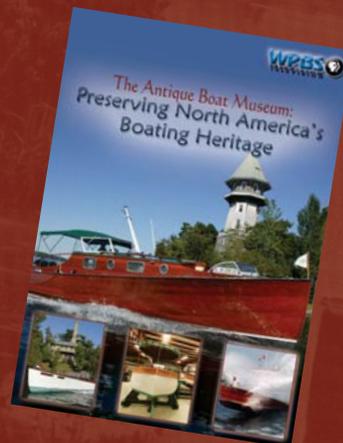


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Teacher's Guide



*2006 Communicator Award
winning documentary*

