

## ***Eddie Rickenbacker: Boy Pilot and Racer*** **Teacher's Guide**

### **Introduction**

This Teacher's Guide provides a framework for using *Eddie Rickenbacker: Boy Pilot and Racer* in the classroom as a vehicle to engage students and weave literature into multiple content areas.

The Guide offers many suggestions for interdisciplinary activities that students can engage in before, during, and after they read the book. These learner-centered activities help students move from a merely comprehension, or knowledge-based, way of thinking about historical fiction, to higher levels of critical thought that include analysis and evaluation.

### **Before Reading**

1. Before starting any unit of study, it's a good idea to assess what students already know, or think they know, about the subject. If students have at least some knowledge of Eddie Rickenbacker or his accomplishments, draw a three-column chart on the blackboard with the headings: *What We Know About Eddie Rickenbacker*, *What We Want to Know*, and *What We Learned*.

Ask students to respond only to the first two columns. After reading the book and performing some or all of the After Reading activities, revisit the chart with the class to complete the third column (*What We Learned*) and to correct any erroneous information in the first column.

2. If students have no knowledge of Rickenbacker or his accomplishments, you can have them begin reading the book without any prior discussion, or you can review the historical timeframe of the book, including such events as the Spanish-American War (1898) and World War I (1914-1918). Create a simple timeline for students to use as they read.

### **During Reading**

While many teachers prefer that students read a book without interruption, others opt to conduct mini-assessments along the way.

1. Have students keep an ongoing literature journal in which they can write about what they're reading and keep an ongoing vocabulary list of unfamiliar words or phrases. You might also wish to provide writing prompts to help students think about what they're reading and to make connections to their own lives. Example of writing prompts:
  - What are some of Eddie's qualities, or personality traits, that you think helped to shape who he became as an adult? (Students might identify

such traits as being inquisitive and having a love of learning.) What are some of YOUR best qualities, or traits of which you are most proud?

- When Eddie was a young boy, other children made fun of him because he spoke with a German accent and because sometimes, when his parents couldn't afford to buy new clothes, his shoes didn't match. Eddie got very angry and tried to make the teasing stop, but he wasn't able to. Have you ever been teased for being different in some way? Were you able to stop the teasing? What advice would you have given to Eddie?
  - When Eddie was an adult, he said, "Courage is doing what you're afraid to do. There can be no courage unless you're scared." Do you think that's true? Why or why not? Write about a time when you had courage.
3. As students read the book, be sure to keep a world map posted so that they can identify each city, state, and country mentioned.
  4. As they read, have students identify figures of speech (e.g., metaphors and similes), alliterative phrases, analogies, and language of the time period.

### **After Reading**

Historical fiction provides wonderful opportunities to weave and blend literature into many different content areas in meaningful ways. Below are a handful of ways for you to integrate a study of Eddie Rickenbacker into your classroom. Although they are organized by content areas, we encourage you to move across content lines to blend them in natural ways AND to encourage your students to conduct further research on any specific topics of interest.

Assessment: All of the activities can be assessed in traditional ways (i.e., with quizzes and letter-grading systems) to determine how well students can memorize and can recount facts. However, since these activities are rooted in discovery, discussion, communication, and collaboration, they lend themselves to more holistic types of assessment that measure achievement of academic skills, behaviors, and even social/emotional growth. We encourage you to use one or more of the following alternative assessments as students complete the activities.

- **Portfolios**—Keep one portfolio of work for each student to measure progress over a specific period of time. Portfolios are a great aid for both student/teacher and parent/teacher conferences. Encourage students to participate in selecting samples of writing, artwork, research notes, etc. to be included in their portfolios.
- **Rubrics**— Create a rubric, or chart (with or without grades or a numerical grading scale) to assess whether or not students have met specific standards and learning goals that you have previously identified.

- **Self-Assessment**—Hold regular teacher/student interviews to listen to students evaluate their own progress and skills.
- **Peer-Assessment**—Have students give and receive constructive feedback to assess such things as collaborative group work and to critique writing.
- **Anecdotal Notes**—As students work individually or in teams, make informal observations of how they solve problems, think critically, conduct research, work with others, and synthesize newly learned information. Add your notes to students' portfolios and share them during parent/teacher conferences.

## Language Arts Connections

1. In Chapter 10, Eddie watches how Mr. Frayer reacts after losing the race. It is then that Eddie adopts the motto “try hard to win, but don’t cry if you lose” as a guiding principle for his own life. Define a motto as “A phrase or statement expressing a principle, a goal, or an ideal; a brief expression of a guiding principle; a slogan.” (*The American Heritage® Student Dictionary*, © 1998.) Have students collect other mottos, including their state’s motto, and then make up their own mottos to share with the class.
2. There are many mentions throughout the book of famous historical figures, including President William McKinley, Theodore Roosevelt, Benjamin Franklin, William Vanderbilt, Jr., Fred Duesenberg, and Charles Murphy. Have students conduct research on these historical figures and then write biographies. Each biography should contain information on the person’s early life and major life achievements. Have students share their written biographies aloud and then compile them into a class book.
3. In Chapter 11, Eddie sends his mother a humorous telegram after he wins the race. Have students learn about the telegram format and then write informative or humorous telegrams to one another.
4. Students can work in pairs to write questions for a mock interview with Eddie Rickenbacker. Encourage them to include questions about his flying and car racing challenges.
5. Tap primary sources to bring history alive in the classroom. Visit the Library of Congress American Memory site (<http://memory.loc.gov/>), click *Search* and type “Eddie Rickenbacker” to see photographs and other documents related to his life, including a photo “ad” of Rickenbacker modeling a fishing kit for Navy lifeboats and a short film clip of Rickenbacker in France during the War. Students can also listen to actual recordings of speeches made by politicians and others during World War I. Select *Collection Finder*, then *Political Science and Law*, and the *World War I and 1920 Election Recordings*. Ask students to evaluate what they see and hear. What do the photos, images, and the figures of speech tell us about the time period?

## Social Studies Connections

1. Have students work individually or in pairs to complete the **WebQuest** by following links to gather information about Rickenbacker's life so that they can create a fictional postage stamp to honor one of his many life achievements.

Encourage students to explore all parts of each site, reminding them to take careful notes about important life events. Be sure they visit the first link which shows the real Rickenbacker postage stamp, issued in 1995. Once research is complete, have students select one achievement that they think should be showcased in a Rickenbacker stamp. Students can draw the illustration within a stamp "frame" (i.e., a box drawn around the illustration). Once all stamps are created, have students present them and tell why they've chosen to depict a specific accomplishment.

2. In Chapter 3, Eddie learns about what's happening in the world, including the beginning of the Spanish-American War. The book discusses "big headlines" that told all about the start of War. Have students write fictional front-page headlines and short articles describing world events and the start of the War.
3. Eddie's parents were immigrants from Switzerland. Have students learn about their own family histories. They can interview parents and grandparents to learn when their ancestors first came to the United States. What were the circumstances? Where did they come from and why did they leave their birth country? Students can tape record the interviews to share with the class and create family trees to see how many generations they can trace back.
4. Help older students understand that many propaganda devices were used to win public opinion to support World War I. Have students look at some examples of WWI postcards and posters, available in many history textbooks and on the Internet. (A good place to start is the Propaganda Postcards of the Great War site (<http://www.ww1-propaganda-cards.com/>) and The World War I Document Archive (<http://www.lib.byu.edu/~rdh/wwi/>)). Have students identify examples of visual images and printed messages encouraging patriotism and telling people to buy war bonds, conserve fuel, and support the war.
5. Learn the history of the original Armistice Day and later, Veteran's Day. (November 11, 1918 is the anniversary of the armistice between the Allied and Central Powers which ended WW1. In 1954, Armistice Day was changed to Veteran's Day.)
6. Draw maps comparing the geography of Europe before and after WWI. Identify the Allied countries and Central Power countries on a map.

7. Although only briefly mentioned at the end of the book, Rickenbacker flew some missions in World War II before retiring from the military. Have students compare similarities and differences between the two World Wars. How did each start and end? Who fought whom and why? Who won each of them?

### **Science Connections**

1. In Chapter 1, we learn that Eddie's family didn't have refrigeration. Instead they had a cellar where they buried a barrel filled with foods that needed to be kept cold. Have students investigate other early methods of refrigeration and create a timeline listing inventions that helped change the world through Eddie's lifetime (1890-1973).
2. In Chapter 8, Eddie learns from his father that all machines should have a purpose. Have students investigate simple and complex machines that they find at school and home. Make a chart listing each machine and its purpose, or how it is used to lessen the effort needed to do a specific task. You might also ask students to identify the simple machine(s) each contains (i.e., lever, pulley, wheel, screw, inclined plane, and wedge). Remind students that some machines, like clocks and scissors, are made up of more than one kind of simple machine. Ask students to name some simple and complex machines they use frequently. Then have them imagine how they would perform the same task without the machine.
3. Investigate machines further by providing basic materials (e.g., wheels, ball bearings, wood planks) for students to experiment with, like Eddie did (Chapter 5) in his father's workshop. Example: have students place several heavy books on a board, then tie a rope onto one end of the board and attempt to pull it across the floor. Ask students to note the result. Then tape or tie two or three rolling pins under the board and pull the load again. Was the result different with wheels? Why? (There was less friction when the rolling pins (wheels and axles) were used because there was less area in contact with the floor.)
4. In Chapter 8, Eddie reads about Benjamin Franklin's experiments with kites in thunderstorms and he foolishly attempts the same until his teacher warns him of the possible consequences. Have students make their own kites to fly when thunderstorms are NOT present to learn the science behind flight. (As air moves over the kite's surface, it moves faster than the air below the surface. This increase in pressure causes the kite to lift, or fly.)

To make simple kites: Lay two dowels in a "T" shape and wind twine around the joint to tie them together. Use a knife to cut notches on the end of each

dowel. Wind the twine around the dowel frame, making sure to catch the twine in each notch. Knot and cut off the excess twine. Lay the kite frame on a large sheet of construction paper and cut the paper in the same diamond shape as the frame, adding about a 1/2 inch on all sides. Glue the edges over the string frame and glue or staple ribbon to the bottom of the kite. Attach four cut pieces of string to the end of each dowel, once the glue has dried. Gather the ends of the string and hold them in front of the kite. Tie together with long kite string.

5. In Chapter 11, Eddie sees his first gasoline-powered car. Until then he had only seen or heard about steam and electric cars. Have students conduct research to learn why gas-powered cars eventually replaced electric cars. (Gas-powered cars were easier to use, more powerful, and could travel much longer distances. They also didn't require battery recharging.) Have students investigate the return to environmentally friendly electric and hybrid cars today. How are these new cars helping the environment and how are they different from the original electric cars from Eddie's childhood?
6. Draw airplanes similar to the ones Eddie flew. Discuss with students the action of such forces as lift, gravity, thrust, and drag. Label each part to show where lift, gravity, thrust, and drag occur.

### **Mathematics Connections**

1. Challenge students to design math word problems using information gleaned from the story. For example, in Chapter 5, Eddie learns that the Duryea, (a "horseless carriage") moved at the speed of 7 mph. Using a map of your state, have students determine the amount of time it would take to get from one city to another in the Duryea and compare it with the time it would take in a car today. (Formula:  $\text{Distance/Time} = \text{Speed}$ .) In Chapter 9, we learn how much money Eddie earned each week at his different jobs. Students can calculate the monthly income he contributed to the family. In Chapter 11, we learn that each car at the Indianapolis Motor Speedway made 200 laps around a 2.5 mile track and 24 cars were racing. Students can determine the total miles driven on the track by each car and by all 24 cars combined.
2. When Eddie sold scrap metal to Sam in Chapter 2, he was concerned that Sam was cheating him so he bought his own scale. Have students use scales to weigh common objects. Determine the price per pound for scrap metal today.
3. Students can draw scale models (on large graph paper) of cars, planes, and dirigibles as described by Eddie in the book.

4. Compare speeds of early means of transportation with today's car and airplane travel speeds.

### **Arts Connections**

1. Have students make kites and fly them, as Eddie did. (See Science Connections.)
2. Have the class create a mural of one descriptive scene from the book, such as Eddie's family life described in Chapter 1.
3. Students can play a game of "marbles" as described in Chapter 4, following the directions given in the story.
4. In Chapter 5, Eddie sees posters advertising the Circus Parade. Create original posters depicting all the things Eddie saw at the parade.
5. Create skits to reenact a favorite scene from the book.
6. Create shoebox dioramas of any of the places or events in the book.
7. Make wood or papier mâché models of all transportation methods mentioned in the book, including horseless carriages, streetcars, race cars, electric cars, gasoline-powered cars, "Spad" airplanes (biplanes), and dirigibles.