

Kid Racers

Introduction

This teacher's guide helps teach young adults about different kinds of kid racers. The world of extreme sports is gaining in popularity. Adults have taken part in these types of sports for years, but kids are now increasingly participating in the trend. Students will learn about BMX Racers, dirt bike racers, kart racers, snowmobile racers, and speedboat racers.

National Standards

This series supports Language Arts, Health, and PE curriculum. Go to www.enslowclassroom.com or www.enslow.com and click on the Curriculum Correlations tab. Click on your state, grade level, and curriculum standard to display how any book in this series backs up your state's specific curriculum standard.

Classroom Activities

Activities for teaching the five curriculum areas: Reading/Language Arts; Math; Science; Social Studies; and the Arts, can be found in this teacher's guide. Intermediate readers will practice identifying and understanding more challenging and possibly unfamiliar vocabulary, along with a variety of sentence structures and types, as they learn about the exciting world of extreme racing.

Guided Reading Level: S

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Kid Racers Teacher's Guide for

Kart Racer

Young adults are fascinated by learning about their age peers doing interesting things. Most young adults are involved in some type of sport, whether in school or in their community. Using exciting and engaging color photographs, this book centers around showing readers what it is like to be a part of extreme sport racing. Readers will identify with the young adults in the book through biography spotlight features repeated throughout the book. These features, along with the vivid images created by the language structures, can lead to discussions about racing karts and why some people are so interested in this sport.

Here is some basic information to point out to students as they are reading.

History

In 1956, Art Ingels, a race car builder in California, designed and built the first go-kart. Soon, other people saw his kart and wanted to create their own. The first business to sell go-karts, Go Kart Manufacturing, opened in 1958. The first engines used on go-karts were gasoline engines that were borrowed from lawn mowers or tractors. McCulloch was the first company to make engines specifically for go-karts. The company adapted their chainsaw engine to create its first engine for go-karts. Later, in the 1960s, motorcycle engines were also adapted for kart use, before dedicated manufacturers started to build engines for the sport. The first kart races were not held on tracks as they are today; they were held in parking lots. As with other racing sports, official rules were eventually created to regulate kart racing, which helped make it safe and fair for all riders.

Equipment

There are five main components of a kart: the chassis, slicks, engine, steering wheel, and body. The chassis is the kart's steel-tube frame. There is no suspension in karts, so the chassis has to be flexible enough to work as a suspension and stiff enough not to break or give way in a turn. Kart chassis in the United States are classified as "Open," "Caged," "Straight," or "Offset." "Open" karts have no roll cage. "Caged" karts have a roll cage surrounding the driver. These types are mostly used on dirt tracks. In "Straight" chassis, the driver sits in the center. In "Offset" chassis, the driver sits on the left side. There are three different types of kart engines: electric, 4-stroke, and 2-stroke. Electric karts are low maintenance, requiring only that the lead-acid batteries of the cars be plugged into a charger after each run. These are considered the most environmentally friendly out of the three engine types. As with most types of racing, the most important piece of safety gear is a helmet. Karts don't have windshields, so the helmet must have a face cover. Racers under the age of 16 also need a chest protector. Drivers also use a foam neck collar, gloves, and a driving suit. These suits are made of strong fabric or leather, and have padding on the elbows and knees.

Team Building

Kart racing is a family-oriented activity. Family members often work as teammates at races. Parents and their children often race together and act as one another's crew. Racing teaches the whole family about teamwork, but more importantly, it gives families an opportunity to spend together outside of their busy, daily lives.

The Five Curriculum Activities

SAFETY WARNING:

Before any activity, make sure your students do not have any allergies to items that you might use. Never use anything which is sharp or may cut a student. Do not use anything too hot or cold which might injure any student. Always have an adult supervise all activities to ensure the safety of your students.

Reading/Language Arts activity:

Ask students to refer to pages 40 and 41 about "Family Affair." Lead a discussion on why families are important to the racing industry. Encourage students to talk about their own families and activities they enjoy doing together. Have students write a paragraph about one activity they enjoy doing with their family and share it with the group.

Math activity:

Refer to pages 32 and 33. Ask students to refer to the average lap speed of the various vehicles mentioned. Then, ask students to calculate how long it takes to complete one lap, five laps, and so on. Have them identify how much distance is covered in each lap (e.g., 1 lap = 4 miles, 5 laps = 20 miles, etc.).

Science activity:

Have students research five NASCAR tracks and find information on their degree of bank. Allow time for students to compare notes and receive assistance with their research as needed. Then, ask students to explain why a banked turn helps a car go faster.

Social Studies activity:

Several different racing locations are mentioned throughout this book, such as Road America in Wisconsin. Using a map of the United States, find each location that is mentioned in the book. Are there certain areas of the country where racing is more popular than others? If so, why might this be? Discuss the possible circumstances that might make certain areas popular with kart racers.

Arts activity:

Have students the ideas presented on pages 38 and 39 to design their own kart paint job. Encourage students to either draw a kart or provide a cut out for students to use. Once all karts are complete, either hang them in the room or in the hallway for others to view and enjoy.

Answers for worksheet: 1. Green: beginning of the race; 2. Black and white checkered: end of the race; 3. Blue: a faster racer is trying to pass; move over and allow them to pass; 4. Black: penalty; 5. White: last lap of the race; 6. Red: slow down completely and go back to the pits.

Write the meaning for each color flag on the line.

1. Green flag _____

2. Black and white checkered flag _____

3. Blue flag _____

4. Black flag _____

5. Yellow flag _____

6. White flag _____

7. Red flag _____

Why do kart racers have to pay attention to the different color flags? _____
