The Super School Bus System

A Reading A-Z Level U Leveled Book Word Count: 1,263

Connections

Writing

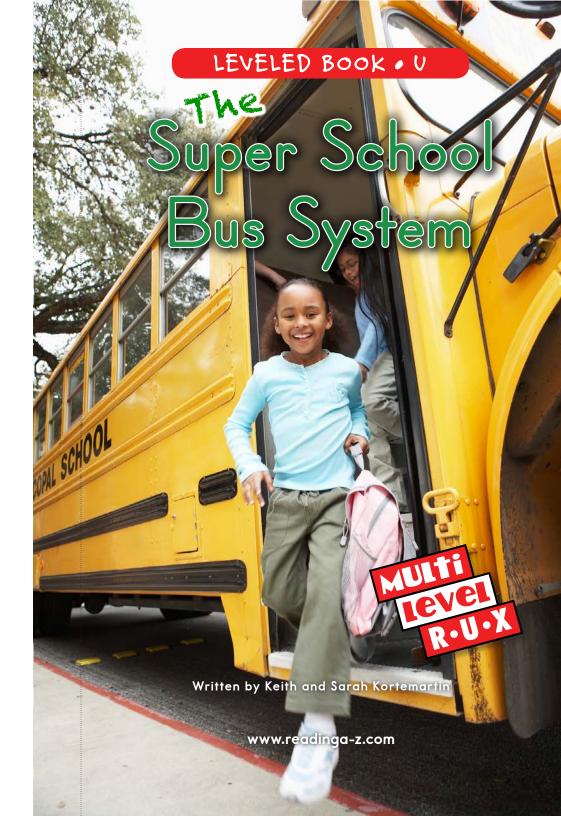
Research a system that another country uses to get students to school. Use a Venn diagram to compare that system with the U.S. system. Then, write a paragraph about how they are the same and different.

Social Studies

Create a timeline about the history of the school bus in the United States that includes facts and pictures. Use the book and outside resources.



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Super School Bus System



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Focus Question

What are the benefits of a school bus system?

Words to Know

discriminated rural

entitled school districts

fleet segregated

integration sparsely

mass transit Supreme Court

principle transportation

Page 3: Children at an army base in New York ride a horse-drawn "bus" to school in 1943. Old-fashioned transportation helped conserve gasoline and tires during World War II.

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Correlation

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The Trusty Bus

Sarah walks outside on a freezing winter day. She shivers on her way to the school bus stop a block from her apartment. As cold as it is, though, she's not worried about standing outside. She knows she won't have to wait for long.

The bus pulls up right on time, and she greets the driver as she boards. She barely notices, though, as the bus pulls out of the stop and rumbles down the road, taking her to school. It's a part of her day she simply takes for granted.

Taxes to Transportation

The yellow school bus is part of the landscape for Sarah and many American students who depend on bus service to get to school. Few people ever stop to think about how that bus system works. Yet the school bus system is one of the most important and complex **mass transit** systems in the country. Busing students to school requires the efforts of a small army of people. School buses travel on all kinds of roadways, from interstate highways to unpaved **rural** lanes.

The vehicles, drivers, mechanics, and fuel that make the school bus system work are controlled by individual **school districts**. School buses are paid for with taxpayer money that often comes from local property taxes. Businesses and homeowners are taxed on the value of their property. They pay that tax to local governments, which use it to pay for services such as police departments, fire departments, and schools. In addition, states sometimes give schools transportation funds that are used for busing. Buses support the American public school system, which is based on the **principle** that everybody is **entitled** to an education.

Mass Transit on a Massive Scale

Planning the system of buses that move students to and from school is an enormous job. The **fleet** of public school buses in the United States employs more vehicles and moves more people than any other form of mass transit in the country. In 2013, about 480,000 buses carried students to school each day. Slightly more than half of public school students, about twenty-six million of them, used school buses daily. In fact, the American school bus fleet has more than twice as many vehicles as all the other mass transit systems in the country combined.

The American school bus system is so enormous for several reasons. The country's large size, its large population, and its lack of other public transit options for students in many places make school buses necessary. This is especially true in rural areas, which often have no public transit options at all outside the school bus system. Rural American school buses tend to have very complex and wide-ranging routes. The rural school bus system in Kingman, Arizona, for example, covers an area larger than the entire state of Delaware.

$-5 = 3 + 5 + 2 = 10 - 4 + 10 \div 2 = 14 \times 2 - 3 = 25 - 5$

Math Minute

At 1,954 square miles (5,060 sq km), Delaware is the second smallest of the fifty states. In Arizona, the Kingman Unified School District (KUSD) is more than 3,000 square miles (7,779 sq km). If KUSD is 3,000 square miles, how much larger is it than the state of Delaware?

7-3=72-70=2-7=3×7-70÷7-1=14×7-3

Answer: 1,046 square miles (2,709 sq km)

In order to make these wide-ranging bus routes work efficiently, school **transportation** planners must examine a number of factors. They must try to ensure that students don't spend too much time traveling back and forth every day. They must establish bus stops that aren't too far away from students' homes so students can walk

to their stop. Many districts offer bus service to any student who lives more than 2 miles (3.2 km) from school. Students who might be placed in dangerous situations by walking to school (such as crossing a highway) are often offered bus service, too.



Sometimes kids make less-than-safe crossings to get to school.

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A horse-drawn stagecoach school bus waits in front of a Colorado high school around 1910.

History

American public schools began organizing mass transportation for their students long before the modern school bus existed. In the 1800s, many students attended one-room schoolhouses in **sparsely** populated rural school districts. In these situations, some students walked. Others might use horse-drawn wagons or sleds to get to school. Over time, school districts discovered that it was efficient to use a system of horse-drawn wagons. The wagons would pick up students and take them to school.

As populations expanded and technology advanced, horse-drawn wagons gave way to motor vehicles. The basic idea of public transportation for students, however, remained the same. Using large passenger vehicles, school districts set up routes and lined up vehicles. The vehicles picked up students before school and delivered them near home at the end of the day.

Yes to Yellow

The big yellow school bus familiar to today's American school students developed over time. The first vehicles that carried students didn't look much like modern buses. A school bus from the 1920s, for example, resembled a long car. Buses gradually grew larger to hold more and more students. The yellow color of modern school buses was chosen because it was highly visible. Educators and parents wanted the school buses to stand out on the road. That way, drivers could easily see the buses and stop in time to allow students to board safely. Today, American school buses are required by law to be painted a color called "National School Bus Glossy Yellow." This helps drivers recognize school buses in an instant.



Then came a new goal: school integration. This was the process of bringing African American and white children together in schools. Prior to 1954, many American schools were segregated, meaning that black students and white students were sent to separate



A woman explains the Supreme Court decision to end school segregation to her daughter in 1954. They sit on the steps of the Supreme Court in Washington, D.C.

schools. These segregated schools were not equal. White students usually received better educational opportunities and more resources than black students did. In 1954, the U.S. **Supreme Court** declared that school segregation **discriminated** against African American students, and the process of integration began.

For a time, school buses were an important part of that process. In the 1970s and 1980s, schools worked together to bus black students to white schools and vice versa. By the 1990s, however, most school districts had stopped using busing to desegregate schools.

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As part of integration, white children are bused in North Carolina in 1973 (left). Black children are bused in Ohio in 1979 (right).

In recent years, closing schools has presented a new challenge. *Consolidation* is a process in which several smaller schools combine in one larger building. Consolidating schools can cut education costs since many students can share resources in a larger school. However, consolidation also requires some students to travel much farther to school. This makes the bus system extremely important in these districts, and it makes bus routes larger and more complex. One school bus route in rural Texas took some students roughly 100 miles (160 km) each way in the mid-1990s. These students spent more time on the bus than they did in school!

Safety

The American public school bus system is the safest transportation option for students. According to the National Safety Council, school buses are forty times safer than private cars. School districts require bus drivers to undergo strict safety training. In addition, school buses have a number of built-in safety features, such as emergency exits, reinforced roof structures, and a seat layout that helps keep students safe in the event of a crash. Seats are spaced closely together, and seat backs are made to absorb an impact. This structure places passengers in a type of protective box. Interestingly, in most states, safety belts are not required on school buses, though a few states have passed bus safety belt laws.

Other bus safety features may include flashing stop signs—to alert drivers that students are

getting off or on the bus—and cameras that help drivers see what's happening inside the bus and outside. We can expect to see more safety upgrades in the future.



When a school bus puts out its stop sign, traffic in both directions is required to stop.

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Do You Know?

Though seat belts make passengers in private cars much safer, there is some debate about whether this holds true for school buses. For one thing, buses are designed with much tougher safety standards. For another, buses often hold more than fifty students at a time. It's hard, then, for the school bus driver to make sure all those students are even wearing their safety belts.

Yellow Buses Go "Green"

Some school districts are also beginning to make changes to buses that help the environment. For instance, one school bus in New York has

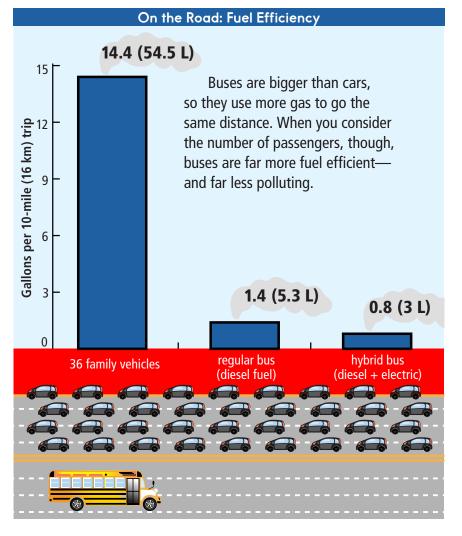


Hybrid buses like this one use both electric power and diesel fuel. In 2007, drivers of hybrid buses reported better mileage—almost twice the mileage of regular school buses.

an electric engine that doesn't pollute the air. The bus can travel for about 120 miles (190 km) before it needs to be recharged.

Another "green" trend in school bus technology is the use of propane fuel. Propane is much less expensive than traditional bus fuel and less polluting, too.

School buses can also reduce pollution by replacing private vehicles on the road. The average school bus can drive fifty-four students. That eliminates about thirty-six private vehicles that would otherwise be used to drive students to school. This fact, along with newer, greener technology, can help keep the air cleaner.



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Conclusion

As the school bus slows to a stop, Sarah opens her eyes, startled to find that she's dozed off. She gathers her things and follows the other students off the bus.

The bus pulls away from the curb, its job done for now. At the end of the day, it'll be waiting for them, ready to start the whole journey again in reverse.

Glossary

discriminated (v.)	treated a person or group unfairly because of gender, race, age, religion, or other differences (p. 10)
entitled (adj.)	deserving of or having a right to something (p. 5)
fleet (n.)	a group of ships or other vehicles operating under one commander or owner (p. 6)
integration (n.)	a process that allows all races to have equal access to facilities, schools, and all parts of society; the end of segregation (p. 10)
mass transit (n.)	a public transportation system that moves large numbers of people on buses, subways, or trains (p. 5)
principle (n.)	a basic value or ideal that guides an action or decision (p. 5)
rural (adj.)	of or relating to the country rather than the city (p. 5)
school districts (n.)	areas or regions containing all the schools managed by local school administrations (p. 5)
segregated (adj.)	kept apart based on group differences, such as race (p. 10)
sparsely (adv.)	in small numbers or amount; thinly spread out (p. 8)
Supreme Court (<i>n</i> .)	the highest court of law in the judicial system of the United States (p. 10)
transportation (n.)	the act of moving things or people from one place to another (p. 7)