



The information in this lesson plan is current as of July 28, 2004

What is Ride Sharing?

Purpose

To help students understand what the term ride sharing means and why it is important to air quality. Educational tools include: spelling, creative writing, and word association.

Grade Level

- ◆ 3rd Grade

The information in this lesson can be taught to third graders and up depending on how complicated the lesson is made.

Science TEKS

- ◆ 3.2 c, d, e

Materials

- ◆ Glossary
- ◆ Ride share Information (for Ride share information visit this website: www.tceq.state.tx.us/assistance/education/info/commute/caapcommutesol.html)
- ◆ Ozone Information (for ozone information visit this website: www.tceq.state.tx.us/compliance/monitoring/air/monops/ozonefacts.html)
- ◆ Magazines/Newspapers
- ◆ Construction Paper

Procedure

Before beginning, it will be helpful for you to read the Ride share Information and Ozone Information under Materials to familiarize yourself with ride sharing issues. To assist the students in understanding the unit, begin with a spelling/vocabulary list.

The following is a list of suggested spelling words and their definitions covering ride sharing and air quality. Please feel free to add to the list as desired using words that are appropriate for your grade level.

alternative fuel - any fuel for a vehicle other than a petroleum-based fuel

ambient air - outdoor air

atmosphere - the whole mass of air surrounding the earth

bicycling - moving from one place to another by pedaling a two-wheeled vehicle

a bus - a large vehicle that can carry many passengers, usually along a regular route

a car - a four-wheeled vehicle for passenger transportation, propelled by an engine

car pooling - an arrangement by two or more people to travel to and from work, school or other activities together in one automobile

congestion - the condition resulting from filling a street or freeway to excess with traffic; the condition of being overcrowded or clogged

contaminant - an element or pollutant that soils the air

cost - the amount of money needed for payment

electricity - form of energy that is used for lighting, heating, and running forms of transportation

emission - a discharge or release of pollutants into the air, such as from a smokestack or automobile engine

environment - the combination of all external conditions and influences relating to the life, development, and survival of all living things

fossil fuels - coal, oil, and natural gas made from the remains of ancient plant and animal life

fumes - smoke, vapor or gas, especially when irritating or offensive

Gasoline - a volatile flammable liquid made from a refined form of crude oil; currently the most commonly used fuel in vehicles

growth - an increase in size, weight, power, etc.

lanes - divided sections of a roadway wide enough for a single line of cars

ozone - an odorless, colorless gas that is formed when pollutants react with sunlight and that is a major component of smog

particulate matter - specks of solid matter, including dust, smoke, fumes, spray, mist, and fog

pollution - impurities in air, water and land that create an unclean environment

ride sharing - an alternative to traveling alone; car pooling, van pooling, using transit, walking or biking

savings - an amount of money not used or put aside for a specific purpose; discounts

a stratosphere - the layer of air that extends from about 10 to 30 miles above the surface of the earth

tires - the rubber tube filled with air, fixed around the wheel of a vehicle to facilitate rotation

transit - buses, trains and subways used by the public

troposphere - the innermost part of the 12-mile layer of air encircling the earth

van pool - using a van to carry seven or more people to a destination

walking - to move from one place to another on foot

Have the class cut out magazine/newspaper pictures and articles pertaining to ride sharing and air quality to create a collage or design a classroom display or bulletin board. These pictures can be organized according to categories of ride sharing or students may choose to paste them to a landscape. Discuss with the students how they can participate in programs relating to the activities in the cutouts to protect air quality in their area.

Have a discussion about what ride sharing means.
Examples of why ride sharing is important for our community.
It decreases air pollution and traffic congestion, etc.
Examples of why it is important to reduce air pollution.
Improve quality of life and health, etc.
Examples of how air pollution affect each of us?
Damage to lungs, irritates eyes, etc.
What are some things we can we do about air pollution and traffic congestion?
Ride a bicycle, walk, bus or car pool to and from school, car pooling with classmates to after school activities, encourage parents to drive one or two of your friends to school with you, etc.
How are you already helping to reduce air pollution by ride sharing in your area?
Riding the school bus to and from school, riding your bicycle or walking to school, encouraging your fellow students and parents to ride share, etc.
Encourage the students to write a short story relating to their ride share collage using the vocabulary words they have learned. Begin by starting the story for the students. Write an introductory sentence on the chalkboard. For example: Ride sharing is good for the environment because..... or, Anyone can participate in ride sharing. Here is how I plan on participating.

For younger classes, ask the students to explain their collages and explain how they plan to participate in ride sharing activities now and in the future. A story about transportation can be read. (See the list of suggested reading material at the end of lesson.)

Make a large sign for the classroom showing what ride share elements your class uses traveling to and from school.

Example

Ride sharing = CAR POOLING + SCHOOL BUS + BICYCLING + WALKING

Divide the class into four groups. Each group can work on one section of the sign and add their own ideas and art about their topic. The sign should be displayed in the classroom to remind students of the definition of ride sharing and how it can benefit air quality in your area.

Resource

Ease on Down The Road, Sacramento Area Council Of Government ride share Program

Acknowledgment

Kim Herndon, TCEQ Mobil Source Division, Commute Options Team, 1997

Reading List

Air Pollution

Author	Title	Grade Level
Breiter, H.	Pollution	3
Cochiane, J.	Air Ecology	4-9
Jenning, T.	Air	3-6
Lambert, D.	Pollution & Conservation	1-6
Walpole, B.	Air	4-6
Woods, G.H.	Pollution	4+

Bicycling

Author	Title	Grade Level
Anderson, K.	What's the Matter Sylvia?	*
Baker, E.	Bicycles	*
Baugh, D.	Bikes	*
Bently, A.	The Grogg's Day Out	*
Boys Scouts of America	Cycling	*
Breinburg, P.	Shawn's Red Bike	*
Bruna, D.	Milly's Bicycle	*
Chald, D.	Bicycles Are Fun to Ride	4+
Fink, J.	Things to Know Before Buying	3-7
Forester, J.	A Bike	*
Herne, H.	Effective Biking at the Intermediate Level	1+
Hoare, S.	Friends	Pk-3
Klingel, C.	Bikes	K-3

McLeod, E.W.	Bicycle Safety	*
Muntian, M.	The Bear's Bicycle	*
Myers, B.	Bicycle Bear	*
Paterson, A.B.	Herman and the Bears....	4-9
Pursell, T.	Mulga Bill's Bicycle	*

Transportation

Author	Title	Grade Level
Arnold, C.	How Do We Travel	K-3
Bagwell, R.	This is an Airport	1
Barton, B.	Airport	*
Baugh, D.	Trucks & Cars	*
Billout, G.	By Camel or By Cars	*
Biro, V.	Gumdrop Gets a Lift	1-2
Brandt, K.	Transportation	3-4
Brockel, R.	Trains, Trucks	*
Caison & Dellosa	Transportation Fun Book	Pk-2
Hobeman, A.	How Do I Go	*
Lanbert, M.	Transportation in the Future	4-6
Publishing Co.	Transportation	1-8
Richard Scarry's	Hop Aboard Here We Go!	*
Shultz, Charles	Third Super Book	4-7
Woolley, C.	I Like Trains	*
Young, M.B.	If I Drove A Bus	*

Zaffo, G. J.	The Book of Real Airplanes	*
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Walking

Author	Title	Grade Level
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Arnosky, J.	Outdoor on Foot	*
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Buchanan, J.	It's A Goodthing	*
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Buckley	Grandfather & I	*
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DeRegniers	Going For A Walk	*
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Hill, E.	The Park	*
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Hill, E.	Spot's First Walk	*
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Hoban, Jana	I Walk & Read	*
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Lenski, Lois	I Went For A Walk	*
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Ray, D.K.	The Cloud	*
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Tworkou, Jan	The Camel Who Took A Walk	*
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Vioist, J.	Try It Again Sam	*
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Zolotow, C.	The Summer Night	*
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