

The Road to...

Clean Air



1X, 2001



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THE ROAD TO CLEAN AIR

People often don't think about the air unless they notice problems such as smoke, haze or bad odors. That's too bad. Consider this: humans can live for days without water and weeks without food, but only a few minutes without air. If your drinking water was dirty, you could buy bottled water. But what would you do if the air was unhealthy to breathe?

Clean air is vital for our health, the environment and the economy. We need clean air so people can breathe without suffering from asthma and other health problems. We need it to preserve our forests, streams and lakes for recreation and wildlife. We need it so people can enjoy scenery in our mountains, parks and coastal areas. We need it for tourism, forestry, agriculture and other parts of the economy.

Front cover: Views toward Raleigh from 1,440 feet up the WRAL tower near Garner. Large picture (poor air quality): August 9, 2001, a day with Code Red ozone levels and high particle levels. Sign inset (good air quality): September 27, 2001, a day with Code Green ozone levels and low particle levels.

Why care about air?

WHAT is air pollution?

Air pollution generally refers to gases and chemicals released by man-made sources such as factories, power plants, and cars and trucks. Natural sources such as forest fires and volcanoes also can produce air pollution. A lot of North Carolina's air pollution comes from burning fossil fuels (oil, gas, and coal), wood, and even trash.

The most serious air pollution problems in North Carolina include ground-level ozone, particle pollution, haze, mercury and other toxic chemicals, smoke from outdoor burning, and greenhouse gases that can change our climate. You can't always see or smell air pollution. And some things that you can see in the air, such as water vapor, are harmless.

DID YOU KNOW?

The average person breathes:
20,000 breaths per day
3,000 gallons of air per day
2 gallons of air per minute

IN THE NEWS

Find these items in your newspaper: words or pictures describing or illustrating a source of energy; an example of something harmful to the environment; two environmental terms; a non-renewable resource; an energy efficient product; a substance toxic to the atmosphere; an article on environmental abuse.

To protect public health, government air quality agencies measure pollution with special monitoring equipment. These particle monitors are located at East Millbrook Middle School in Raleigh.



WHAT'S being done?

In North Carolina, the Division of Air Quality and local air programs enforce air quality laws, monitor the air for pollution, inspect factories and other pollution sources, and help ensure that cars and trucks run cleanly. But a lot of air pollution is caused by people's everyday activities.

That's where you come in. By reading this publication, you can learn how you affect air quality, and how air quality affects you. You'll learn simple steps that you can take to make the air cleaner for yourself, your family and friends, and for everyone.

IN THE NEWS

1 Search the internet or your newspaper for articles dealing with some aspect of air pollution. Select one and write a short paragraph on how this directly or indirectly affects your life. Rewrite the article describing this world's future if we do not act today on this issue.

2 Divide a sheet of paper into two columns. Locate an

article in the news or elsewhere discussing an environmental issue. List all the facts provided in one column, and all the opinions in another column. What is the issue? Is it of local, national, or international concern? Who is most directly impacted by the consequences of this issue? Do you feel this is important to the future of our environment? Why or why not? Do you feel any information is missing in the article?

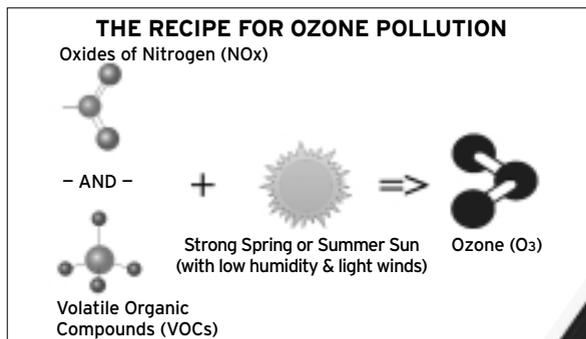


GOOD up high BAD nearby

Ozone can be good or bad. The good ozone is a layer of naturally occurring ozone in the upper atmosphere that absorbs much of the sun's harmful ultraviolet (UV) radiation. Man-made chemicals are depleting the ozone layer. As a result, more UV radiation reaches the earth's surface, causing higher skin cancer rates and damaging plants and marine life.

Bad ozone occurs in the lower atmosphere, mostly due to human activities. This ground-level ozone or ozone pollution forms when other gases mix in the air on hot, sunny days. That's why ozone pollution is mostly a problem from the late spring through early fall.

The two main ingredients of ozone pollution are nitrogen oxides, or NOx, and volatile organic compounds, or VOCs (also called hydrocarbons). Humans produce NOx by burning materials such as fossil fuels (gasoline, diesel fuel, and coal) and wood. VOCs are "smelly fumes" such as gasoline fumes and industrial emissions, but most are produced by trees!



FAST FACT

In North Carolina, about 75% of VOCs in the air are produced by trees and other natural sources. But trees don't cause pollution! NOx is also a necessary ingredient of ozone, and about 99% of NOx is man-made.

IN THE NEWS

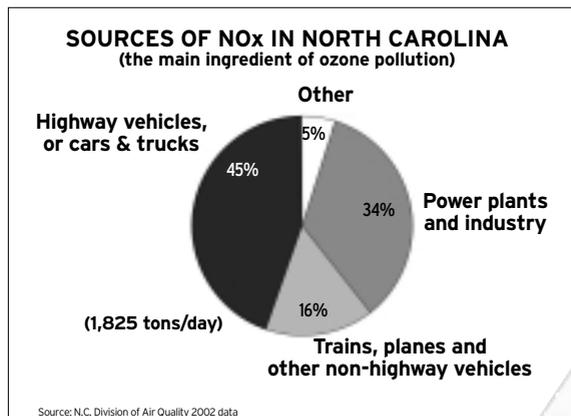
Locate an article that discusses an issue or event that may impact the quality of our air. Identify the 5 W's in the article: Who? What? When? Where? Why? What do you feel the environmental impact will be?



OZONE

WHAT'S bad about ozone pollution?

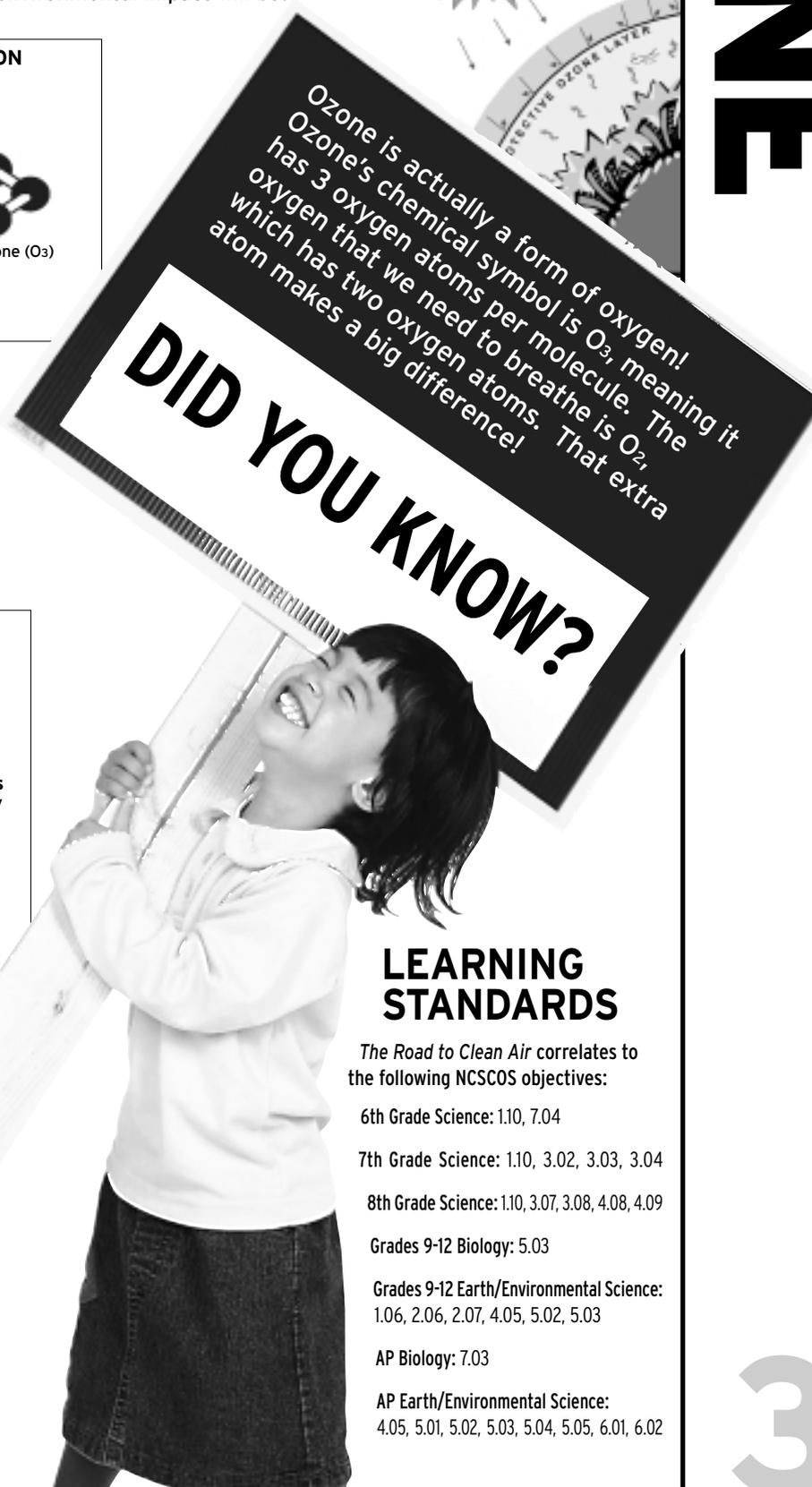
Ozone is a very reactive gas, damaging almost any surfaces it touches – including our lungs and airways, the leaves of plants, and man-made materials such as rubber and fabric. The effects of breathing ozone are like a sunburn on the inside of the lungs. The lung scarring caused by ozone reduces oxygen uptake, and is particularly harmful for people with breathing diseases like asthma and emphysema. Even healthy people risk shortness of breath, throat and eye irritation, and lung damage from breathing too much ozone.



Several places in North Carolina, including the Triangle and other metro areas, exceed the federal clean air standard for ozone, meaning that ozone levels are sometimes high enough to be a health risk.

OZONE and smog

Smog is the brownish haze that sometimes hangs over cities, reducing the distance you can see. Smog is a mixture of ozone pollution and particles in the air. High ozone levels don't always cause smog. You can have a clear day even with high ozone, as long as particle levels are low.



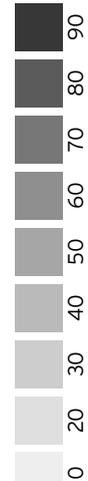
Ozone is actually a form of oxygen! Ozone's chemical symbol is O₃, meaning it has 3 oxygen atoms per molecule. The oxygen that we need to breathe is O₂, which has two oxygen atoms. That extra atom makes a big difference!

LEARNING STANDARDS

The Road to Clean Air correlates to the following NCSCOS objectives:

- 6th Grade Science: 1.10, 7.04
- 7th Grade Science: 1.10, 3.02, 3.03, 3.04
- 8th Grade Science: 1.10, 3.07, 3.08, 4.08, 4.09
- Grades 9-12 Biology: 5.03
- Grades 9-12 Earth/Environmental Science: 1.06, 2.06, 2.07, 4.05, 5.02, 5.03
- AP Biology: 7.03
- AP Earth/Environmental Science: 4.05, 5.01, 5.02, 5.03, 5.04, 5.05, 6.01, 6.02

3X, 2001



CLIMATE CHANGE

4

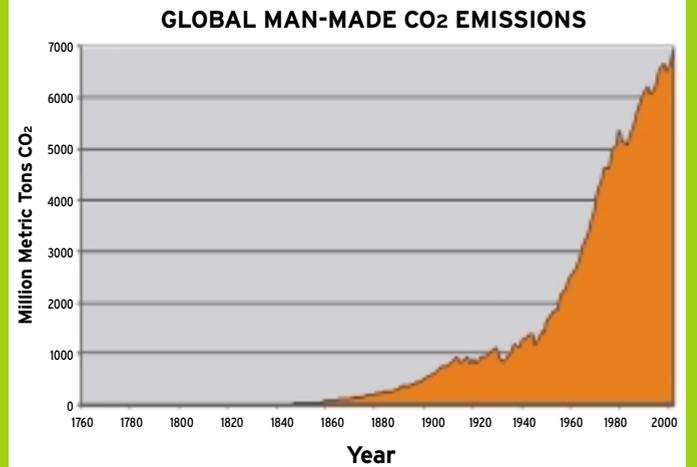
4X, 2001

Getting **HOT** in here?

The Earth's climate is becoming warmer, and many scientists believe that rising levels of carbon dioxide (CO₂) and other "greenhouse gases" are the reason. CO₂ is not an air pollutant in the traditional sense because it is essential to life. Plants take CO₂ from the air to grow, while giving off oxygen that humans and animals need to survive.

CO₂ also plays an essential role in the Earth's climate, even though it forms only a small fraction (0.037 percent) of the atmosphere. CO₂ and other gases trap heat in the atmosphere by reflecting radiated heat back toward the Earth and preventing it from escaping to outer space.

Without this natural "greenhouse effect," temperatures would be much colder, and life as we know it would not be possible. Other greenhouse gases include methane, nitrous oxide, and even water vapor.



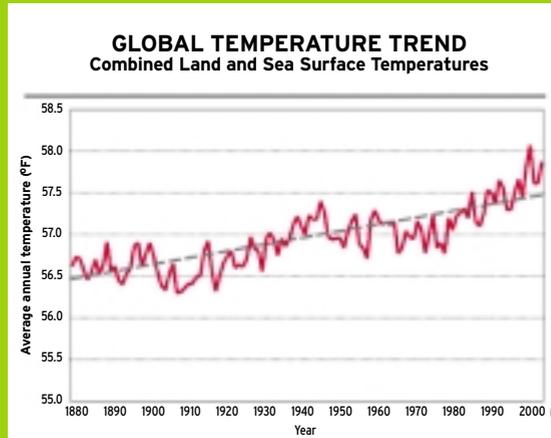
Global emissions of CO₂ from fossil fuel combustion have risen and continue to rise.

Source: U.S. Dept. of Energy, Carbon Dioxide Information Analysis Center

TOO MUCH of a good thing?

Human activities - particularly the burning of gasoline, oil, coal and other fossil fuels -- have released much more CO₂ into the air over the last 200 years or so. As a result, temperatures are increasing around the world, a process called global warming. A more accurate term is climate change because the effects are much broader than just temperatures.

Snow cover, ice and glaciers have decreased in the Arctic and high mountain ranges. Global sea levels have risen 4 to 8 inches over the past century due to the melting of ice on land and the expansion of ocean water as it warms. Climate changes have caused some plants and animals to alter their ranges and migration patterns.



Global temperature has risen about one degree Fahrenheit over the last century and continues to rise.

Source: National Climatic Data Center

In the future, further rises in sea levels could flood low-lying coastal areas in North Carolina and around the world. Droughts and changing weather patterns could affect the growth of crops and forests. Hurricanes could become more intense due to warmer ocean temperatures. Diseases and pests that thrive in warmer climates, such as malaria, could spread into North Carolina.

WHAT can we do?

Most scientists agree that some climate changes will occur no matter what we do. But the severity and extent of these changes will depend on how much we can reduce our production of greenhouse gases.

The key is to reduce our fossil fuel consumption. Fossil fuels burned to run cars and trucks, heat buildings, and generate electricity account for about 98 percent of CO₂ emissions in the United States. We can help ease the effects of climate change by using fuel-efficient cars, driving less and saving electricity. See page 10 for more tips on reducing energy use and air pollution.

IN THE NEWS

Find an article about another country's air pollution problems. How do that country's problems compare with those of the US? How do they compare with those of North Carolina? Collect articles and conduct research to find out which countries create the most greenhouse gases. Explain why each country creates so many greenhouse gases. Is anything being done to improve the situation?



By the time a child born today reaches 30, a day at the beach may be very different. Sea level is predicted to rise about six inches by 2030 due to climate change, flooding many of North Carolina's low-lying coastal areas.



ELECTRICITY & CARS double trouble

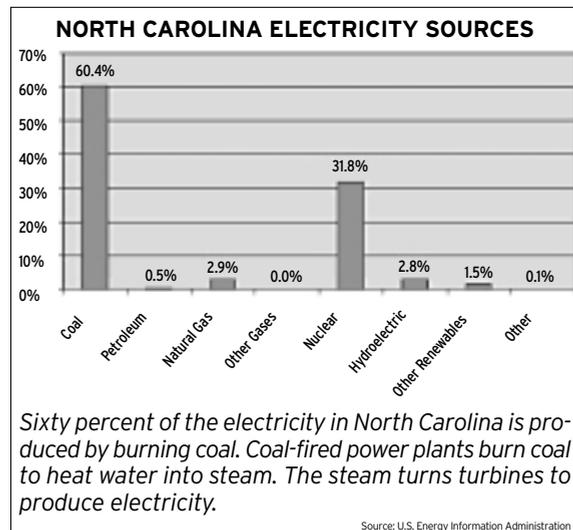
Most air pollution in North Carolina comes from two major sources: electricity production and motor vehicles. Our use of cars, trucks and electricity accounts for most of the ozone-forming pollution and a range of other air quality problems, including haze, acid rain, particle pollution and climate change.

In North Carolina, most electricity comes from coal-fired power plants. Burning coal produces several kinds of air pollution, including:

- Nitrogen oxides, or NOx, which causes ozone, particle pollution, haze and acid rain
- Sulfur dioxide, or SO₂, which causes particle pollution, haze and acid rain
- Carbon dioxide, or CO₂, a major cause of climate change
- Mercury, a toxic chemical that can accumulate in fish

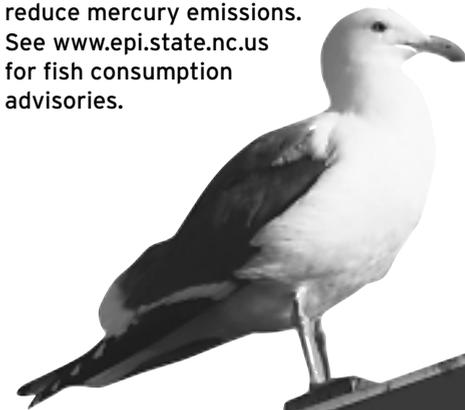
North Carolina's air is becoming cleaner thanks to the Clean Smokestacks Act, a state law requiring coal-fired power plants to reduce their NOx

and SO₂ emissions by 75 percent. You also can help – by using less electricity! Turning off lights and other appliances will reduce air pollution, while saving money on your electric bill. See more ideas for conserving energy and cleaning the air on page 10 of this publication.



DID YOU KNOW?

Coal contains small amounts of mercury, which is released into the air when power plants generate electricity. Some of this mercury ends up in streams, lakes and ocean waters, where it can accumulate in predatory fish such as largemouth bass. These fish can be unhealthy to eat, particularly for children and pregnant women. North Carolina is working with power companies to find ways to reduce mercury emissions. See www.epi.state.nc.us for fish consumption advisories.



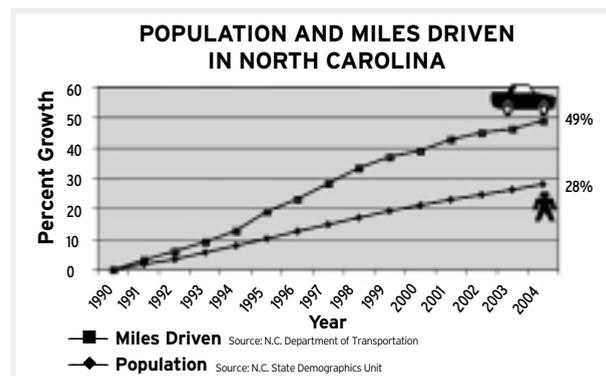
SMOKESTACKS on wheels

Power plants and other smokestack industries aren't the only major sources of air pollution. North Carolina has about 7 million cars and trucks, and those vehicles contribute substantially to our air quality problems - including ozone, particle pollution and climate change.

Did you know that highway exhaust accounts for about one-half of the ozone-forming pollution statewide, and 70 percent or more in some cities? Plus, pollution from cars and trucks is growing faster than air pollution from other sources, because people are driving more miles than in the past.

State and federal laws require catalytic converters and other pollution-reducing equipment on cars and trucks. New vehicles are much cleaner than they were 20 years ago, but a car or truck with faulty controls can produce 100 times more pollution than a properly functioning one.

To make sure that pollution controls are working properly, North Carolina requires annual emissions inspections for cars in 48 of its 100 counties. The test uses the computers installed on all new cars since 1996 to determine if pollution controls are working and, if not, what needs to be fixed. You can help reduce air pollution from motor vehicles by driving less, choosing cleaner cars, and properly maintaining your car. See page 10 for more ideas.



We're driving more and more. Since 1990, the number of miles driven in North Carolina has increased almost twice as fast as the population.



IN THE NEWS

• With your family or friends, discuss how many times a day you need transportation to and from different places. List these places and how you get there. What alternative types of transportation could you use or how could you change your behaviors to reduce your travel?

• Look in today's newspaper for information about products and activities that consume fossil fuels. What problems are these causing in our community and worldwide? What alternative products could we use? How could we adapt our activities to improve the environment?



What goes up...

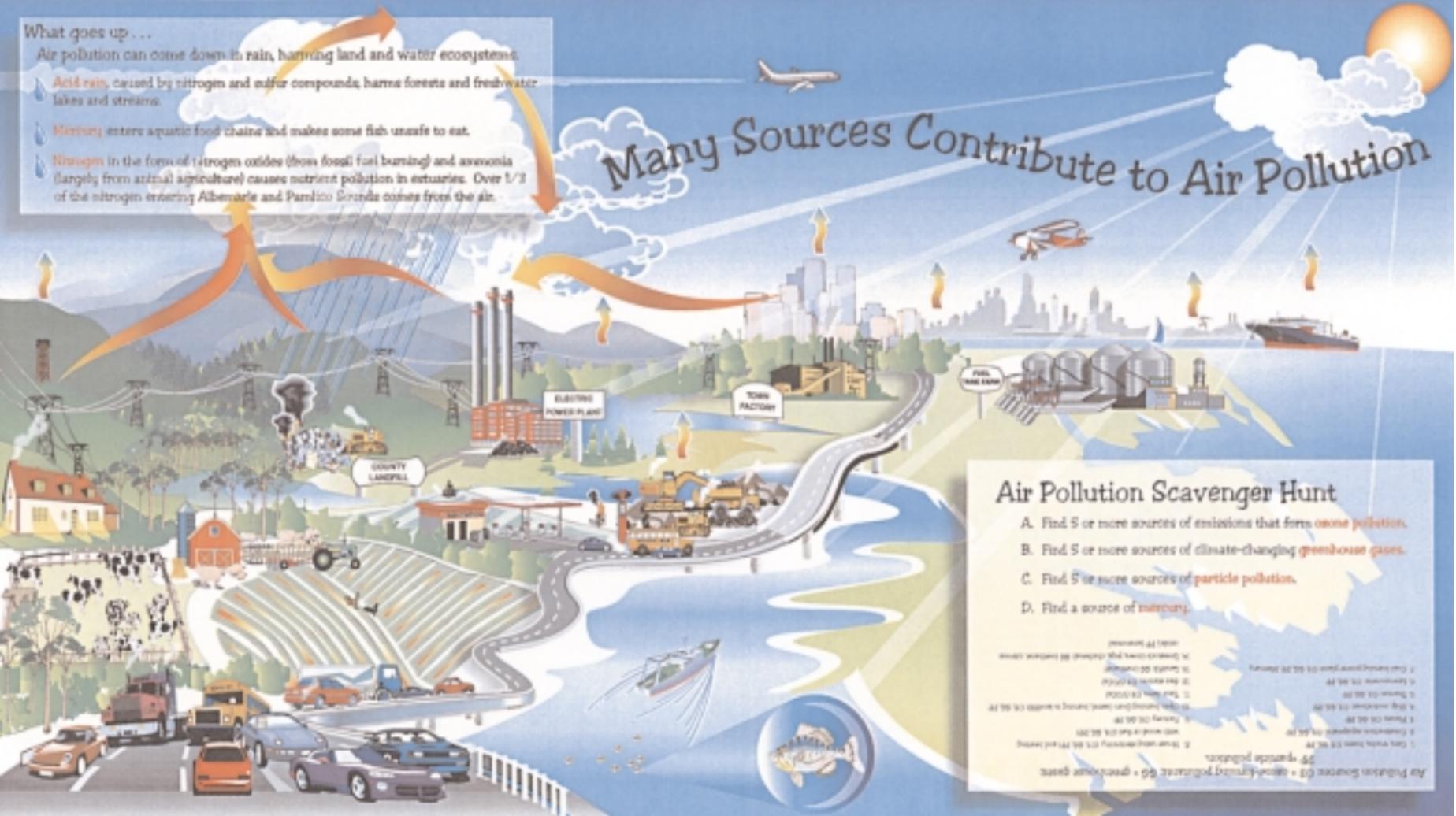
Air pollution can come down in rain, harming land and water ecosystems.

Acid rain, caused by nitrogen and sulfur compounds, harms forests and freshwater lakes and streams.

Mercury enters aquatic food chains and makes some fish unsafe to eat.

Nitrogen in the form of nitrogen oxides (from fossil fuel burning) and ammonia (largely from animal agriculture) causes nutrient pollution in estuaries. Over 1/3 of the nitrogen entering Albemarle and Pamlico Sounds comes from the air.

Many Sources Contribute to Air Pollution



Air Pollution Scavenger Hunt

- Find 5 or more sources of emissions that form **ozone pollution**.
- Find 5 or more sources of climate-changing **greenhouse gases**.
- Find 5 or more sources of **particle pollution**.
- Find a source of **mercury**.

1. Find a source of mercury. 2. Find a source of particle pollution. 3. Find 5 or more sources of ozone pollution. 4. Find 5 or more sources of greenhouse gases. 5. Find 5 or more sources of climate-changing greenhouse gases. 6. Find 5 or more sources of emissions that form ozone pollution.

BREATHE

*When you burn trash,
you breathe trash!
You also break the law.
Instead, recycle what
you can, and properly
dispose of the rest.*



IN THE NEWS

List topics you consider environmental issues. Over a period of weeks, scan the newspaper for articles related to the environment. Collect your articles in a class folder with pages arranged under the appropriate tab or heading: local, national, or international. Under each section, identify who, what, when, where, and why. Identify any possible solutions to the environmental issues in each article.

Breathe **DON'T** burn!

Smoke from fires pollutes the air and is unhealthy to breathe. Smoke contains particles and toxic chemicals that can cause lung irritation, watery eyes, headaches, dizziness, asthma attacks, coughing and even death in extreme cases.

North Carolina's open burning rule is one of the oldest state air quality regulations. The essence of the rule is simple: do not burn any man-made materials. Even "natural" materials that have been processed, such as lumber or paper, should not be burned.

Many people burn their household garbage to get rid of it, but this is against the law and extremely unhealthy. Plastics and other common trash items give off toxic chemicals when burned. A single household burn barrel can emit as much toxic pollution as a well-controlled municipal incinerator, according to the U.S. Environmental Protection Agency.

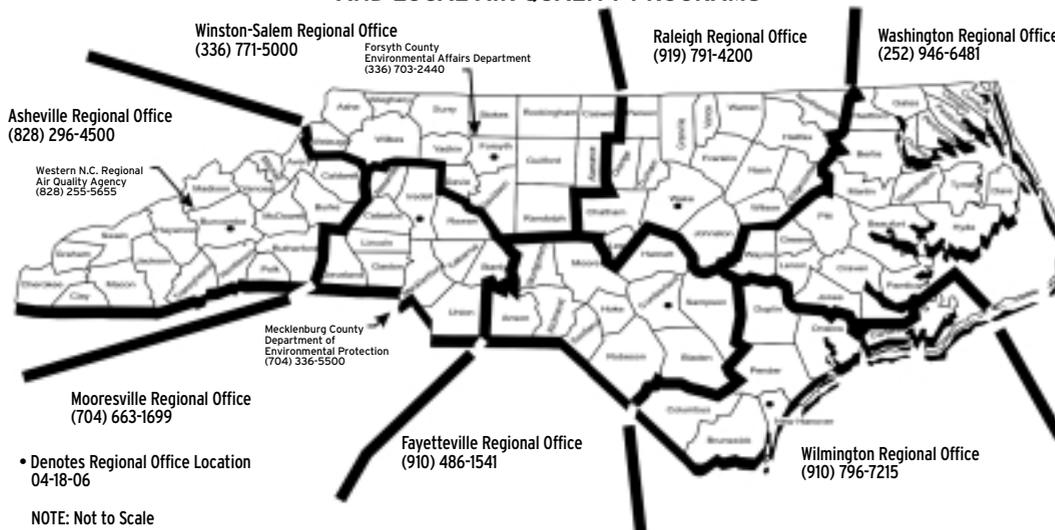
The open burning rule also sets limits on allowable burning, but you should never burn outdoors when dry and windy conditions could cause wildfires. Never burn on Air Quality Action Days, when the air quality forecast is Code Orange, Red or Purple.

WHAT is allowed?

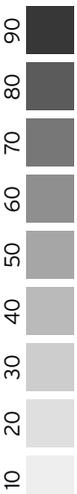
Burning of natural vegetation is sometimes allowed. Homeowners can burn leaves and small branches from their yards if no public pickup is available, local governments allow it, and the smoke doesn't cause a nuisance. Even when allowed, burning leaves and brush causes pollution. Instead, try composting and chipping yard waste. Other allowable burning includes campfires, outdoor barbecues and bonfires for festive occasions.

Controlled burning of forest undergrowth can benefit trees and wildlife and help prevent larger fires. Only forestry and wildlife professionals should set controlled burns, as they must be carefully managed to prevent wildfires. Outdoor fires also are sometimes allowed for clearing land, training fire fighters, controlling agricultural pests, and disposing of vegetative waste from hurricanes, tornadoes and other natural disasters. Anyone wanting to burn allowable materials should check with their local officials and forest rangers to see if they need a burning permit.

NORTH CAROLINA DIVISION OF AIR QUALITY REGIONAL OFFICES AND LOCAL AIR QUALITY PROGRAMS



Call your nearest air quality agency office with questions about allowable burning, or to report illegal open burning. You can also call 1-877-OPENBURN for more information.



8X, 2001

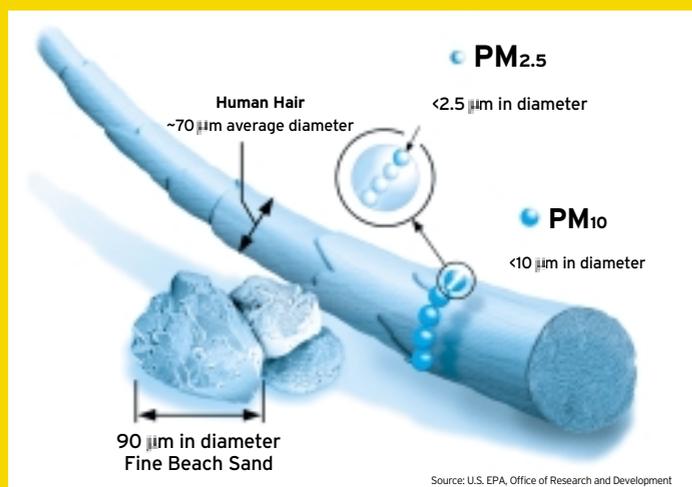
C M Y K

PARTICLES in the air

The air we breathe is full of small particles, many so tiny that we can't see them. Smoke and windblown dust are made up of particles. Particles also come from cars and trucks, diesel equipment, electric power plants, and other sources. Particle pollution, especially very fine particles, can be dangerous to our health.

Larger particles are normally trapped by the body's defenses, such as nose hair and mucus, as we breathe. But very small particles can get past these defenses and penetrate deep into your lungs, and even into your bloodstream.

High levels of particle pollution can cause asthma attacks and other breathing problems. Particles also may cause heart attacks, especially in people who already have heart disease. People with heart or lung disease (including asthma), young children, and older adults are most at risk from particle pollution.



Particles less than 10 micrometers (μm) across can get deep into your lungs. Particles less than 2.5 micrometers wide (about 1/30 the width of a human hair) are especially dangerous and can even enter the bloodstream. A micrometer is one-millionth of a meter, or one-thousandth of a millimeter. (PM = Particulate Matter, another term for particle pollution.)

IN THE NEWS

Make a list of at least three things you and your family can do to make the air we breathe cleaner and healthier. How many of these ideas are you and your family already doing? Which could you start tomorrow?

DID YOU KNOW?

The Blue Ridge Mountains are "blue" because natural hydrocarbons released by trees give the landscape a blue tint. The Smoky Mountains are named for the mists rising from mountain coves in the morning and after rain. The haze that obscures views on many days is caused by man-made pollution.



SHRINKING views

Particle pollution is the main culprit in haze or reduced visibility. Particles combine with water vapor to scatter light into a whitish haze, washing out colors and obscuring landscape features. This haze threatens tourism, a major part of western North Carolina's economy.

Haze from man-made pollution has reduced views from scenic overlooks in the Blue Ridge and Smoky Mountains over the last 50 years or so. Average visibility in the Southern Appalachian Mountains has decreased 40% in winter and 80% in summer.



Views of Pilot Mountain in Surry County on days with good and poor visibility. Man-made haze has reduced visibility throughout the Southeast. In Great Smoky Mountains National Park, annual average visibility is now 25 miles, down from 93 miles under natural conditions.

PARTICLES



CLEAR THE AIR

YOU CAN HELP clear the air

These simple steps will help clear the air. Most will save you money, too!

Drive Down Pollution

Drive less.

Walk, bike, ride the bus, carpool.

Combine trips.

Take your lunch to work or school, instead of driving out to eat.

Be an Easy Rider

Keep your car or motorcycle tuned up.

Maintain correct air pressure in tires.

Avoid idling.

Choose a fuel-efficient vehicle.

DID YOU KNOW?

Under-inflated tires can reduce gas mileage by 1 mile per gallon. If all tires in the U.S. were properly inflated, we would save 4 million gallons of gas every day.

U.S. Department of Energy

IN THE NEWS

Using information in this supplement and your newspaper, create a list of energy-saving tips that will avoid a buildup of greenhouse gases in our environment. Look through the newspaper for examples of ways global warming might be affecting our community, state, or nation.

Save Energy

Set heater thermostats lower in winter.

Set air conditioner thermostats higher in summer, and use fans to circulate more air.

Turn off unused lights, appliances, and computers.

Better insulate your home.

Switch lights to compact fluorescent bulbs.

Buy energy-efficient appliances.

Purchase a block of Green Power for your home or business (see www.ncgreenpower.org).

DID YOU KNOW?

A typical commuter can save \$900 on gas annually by carpooling with just one other person!

Runzheimer International

DID YOU KNOW?

If you replace four regular light bulbs with compact fluorescent bulbs, you'll save the use of 1.25 tons of coal over the lifetime of the bulbs. *U.S. EPA*

IN THE NEWS

Think of ways you and your family or friends can make a difference in conserving energy. Write your own plan of action and sign it. Keep notes on how you were able or unable to honor the goal of your contract and why.

Care for the Air

Don't burn trash or yard waste.

Keep all engines tuned: lawnmowers, boats, etc.

Use hand tools or electric equipment (instead of gas-powered) in your yard.

Recycle, and buy products made with recycled materials.

BUY recycled!

Making products from recycled materials, rather than from new or "raw" materials, saves huge amounts of energy – and pollution!

Recycling:	Saves:
1 glass bottle	Enough energy to run a 100-watt light bulb for 4 hours
1 aluminum can	Enough energy to run a 100-watt bulb for 20 hours
1 ton of steel	3.6 barrels of oil
1 ton of paper	Enough energy to run an average home for 4 months

Source: U.S. EPA



IN THE NEWS
In the newspaper find companies you feel have an impact on our environment – either positive or negative. How does each impact the environment? Does it make or use recyclable products? Is it required to meet environmental regulations? What new regulations would you like to see these companies have to follow?

10X, 2001

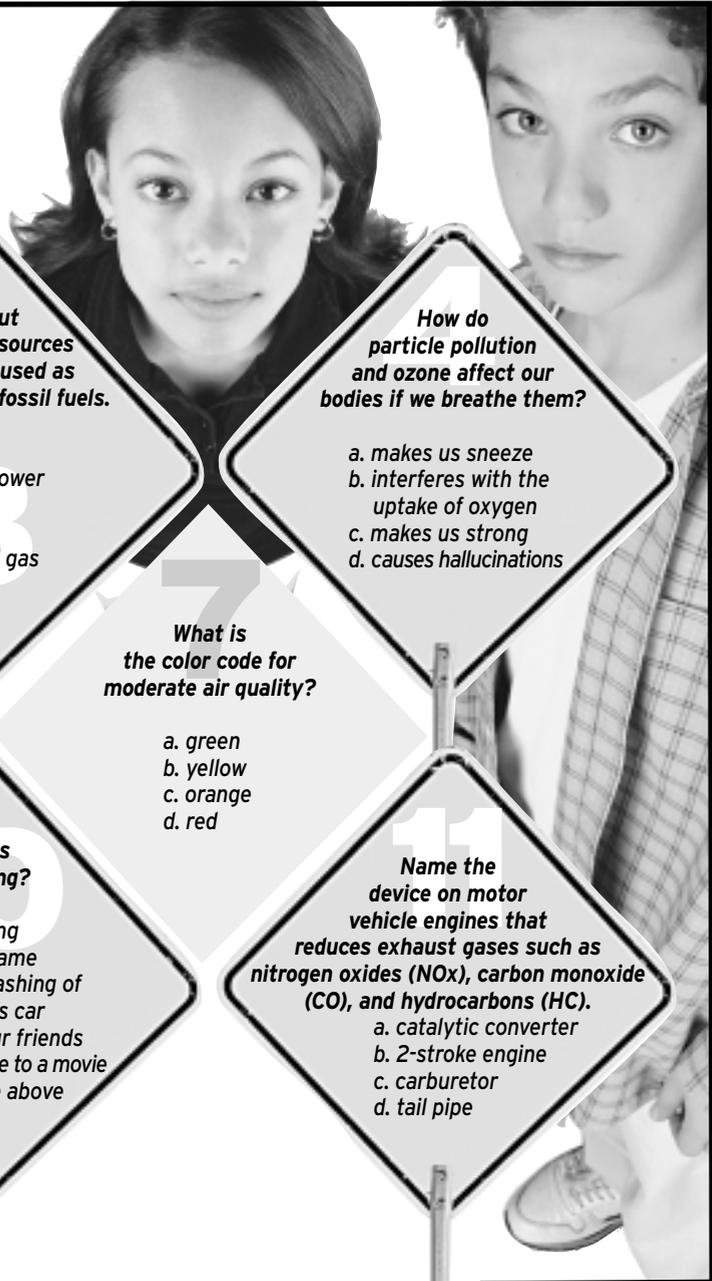
C M Y K

10

TEST your air I.Q.

IN THE NEWS

In ads and articles find products that may be harmful to our air. Place each product in one of these categories: lawn-care products, household products, packaging, car-care items, other. Identify an environmentally healthy alternative for each. If alternatives are available, why aren't there laws requiring consumers to use them?



1
What is smog?
 a. a creature invented by J.R.R. Tolkien
 b. air that has restricted visibility due to pollution
 c. a visual form of acid rain
 d. the layer of gas above the air we breathe

2
Which of the following can improve air quality?
 a. gas stations
 b. airplanes
 c. walking
 d. buying a safe vehicle

3
Pick out two energy sources that can be used as alternatives to fossil fuels.
 a. oil
 b. solar power
 c. wind
 d. coal
 e. natural gas
 f. milk

4
How do particle pollution and ozone affect our bodies if we breathe them?
 a. makes us sneeze
 b. interferes with the uptake of oxygen
 c. makes us strong
 d. causes hallucinations

5
Which pollutant is not contained in car and truck exhaust?
 a. lead
 b. nitrogen oxides (NOx)
 c. carbon monoxide
 d. particle pollution

6
Who are particularly likely to become sick from air pollution?
 a. elderly people
 b. asthmatics
 c. people with respiratory diseases
 d. all of the above

7
Is ozone good or bad?
 a. always good
 b. always bad
 c. good in the upper atmosphere, bad at ground level
 d. bad in the upper atmosphere, good at ground level

8
What is the color code for moderate air quality?
 a. green
 b. yellow
 c. orange
 d. red

9
Environmental friendliness of a vehicle can be measured by the amount of pollution it emits per passenger per mile traveled. Rank the environmental friendliness (1=best & 4=worst) of these vehicles. car; motor scooter; bus; bike
 1. _____
 2. _____
 3. _____
 4. _____

10
What is carpooling?
 a. an interesting computer game
 b. intensive washing of your father's car
 c. you and your friends sharing a ride to a movie
 d. none of the above

11
Name the device on motor vehicle engines that reduces exhaust gases such as nitrogen oxides (NOx), carbon monoxide (CO), and hydrocarbons (HC).
 a. catalytic converter
 b. 2-stroke engine
 c. carburetor
 d. tail pipe

12
Climate change or global warming is caused by?
 a. an ozone layer that is too thick
 b. the difference between the northern and southern hemisphere
 c. a build-up of ozone in the lower atmosphere
 d. an over-abundance of gases such as CO₂ from human activities

13
Which of the following are legal to burn?
 a. tires
 b. leaves, tree branches and yard trimmings if no public pick-up is available
 c. household garbage
 d. used motor oil and plastic containers

14
Which of the following is NOT a greenhouse gas?
 a. carbon dioxide (CO₂)
 b. water
 c. ammonia
 d. nitrous oxide

15
Which of the following are not sources of particle pollution?
 a. fires
 b. motor vehicles
 c. butterflies
 d. coal-fired power plants

16
Why is North Carolina working with coal-fired power plants to reduce mercury in emissions?
 a. it is a toxic gas
 b. it dissolves in precipitation and filters into water bodies
 c. it accumulates in aquatic life
 d. B and C only
 e. A, B and C

answers

1:b, 2:c, 3:b and c, 4:b, 5:d, 6:c, 7:b, 8:a, 9:(1) bike, (2) bus, (3) motor scooter, (4) car, 10:c, 11:a, 12:d, 13:c, 14:b, 15:c, 16: e

14 - 16 correct: You are an environmental genius!

11 - 13 correct: You are air savvy.

8 - 10 correct: You are an emerging environmentalist.

Keep learning!

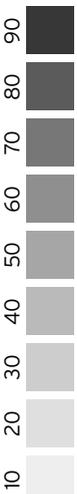
7 or less: Having a bad air day?

IN THE NEWS

Use your newspaper to find an article identifying a specific air pollution problem. Underline words identifying causes of the pollution. What are effects of the pollution? Can you identify any possible solutions? What obstacles exist to implementing these solutions?



FORECAST



12X, 2001

C M Y K

12



The Division of Air Quality and local air programs issue air quality forecasts for major metro areas across the state. The color-coded forecasts can help you protect your health and the air. On Air Quality Action Days (Code Orange, Red, and Purple), reduce your outdoor physical activity during the hot part of the day when air quality can be worse. Try walking instead of jogging, for instance. Remember that the harder you breathe, the more air pollution you take in.

Every day should be an Action Day when it comes to caring for the air. But Code Orange, Red, and Purple days are important days to drive less and take other steps to clear the air.

IN THE NEWS

Look at today's weather page. What is today's ozone forecast? Is it better or worse than yesterday's report of measured air quality? Should people modify their activities today? If so, how? Explain what today's forecast and yesterday's report mean. How does a forecast differ from a report of past air quality? What was yesterday's main measured pollutant? What role do you think man plays in our area's air quality? What is nature's role?

good	no health effects expected
moderate	unusually sensitive people: consider limiting outdoor activity
unhealthy for sensitive groups	children, active people and those with respiratory or heart disease: limit outdoor activity
unhealthy for all	everyone: limit or avoid outdoor activity
very unhealthy for all	everyone: avoid outdoor activity

IN THE NEWS

Use the newspaper to develop a chart showing the environmental positives in your community - such as people or businesses making a difference, parks and recreational areas preserving the environment, etc. - and how they help.

IN THE NEWS

You have been asked to serve on the community nominating committee for an Environmental Awareness Hall of Fame Award. Find newspaper stories about people or companies contributing to environmental clean up. Write a paragraph for each, explaining why this company or individual deserves to be inducted into the Hall of Fame. With your classmates, compile all the nominations and vote to decide who will receive the award. Chart the results. Who got the most votes? The least?



WHERE do I find the air quality forecast?

In the Triangle, air quality forecasts are issued daily May 1 - September 30.

Television: Watch your TV weather news to see the air quality forecast. Some meteorologists only announce air quality forecasts for Code Orange, Red or Purple days.

Newspaper: See your newspaper's weather page.

Web: Visit www.ncair.org.

For more information about air quality see www.ncair.org, e-mail air.awareness@ncmail.net or call 1-888-RU4NCAIR.