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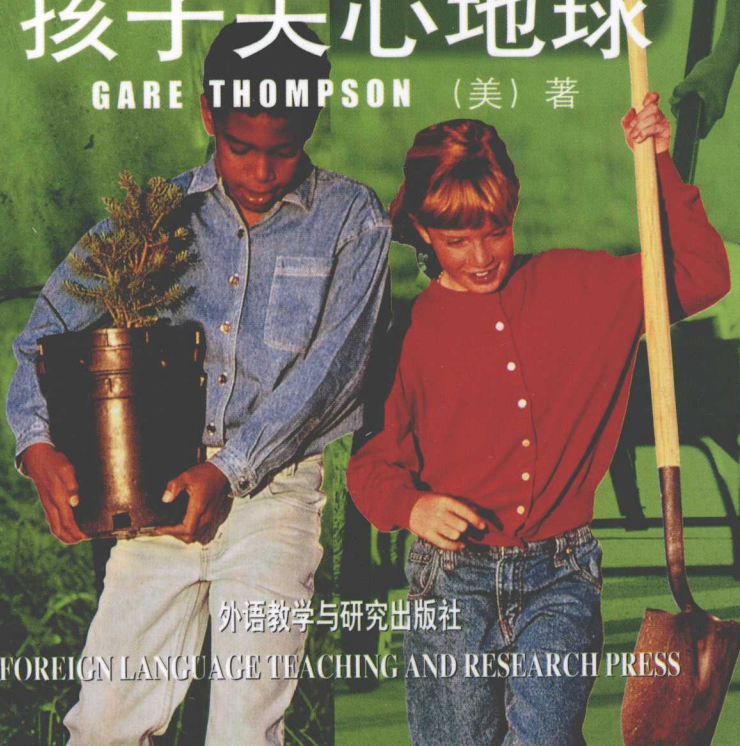
别小看孩子

# Kids

## Care for the Earth

### 孩子关心地球

GARE THOMPSON (美) 著



外语教学与研究出版社

FOREIGN LANGUAGE TEACHING AND RESEARCH PRESS

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## 致读者

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**如**果你希望读到地道的英语，在享受英语阅读乐趣的同时又能增长知识、开拓视野，这套由外语教学与研究出版社与美国国家地理学会合作出版的“国家地理科学探索丛书”正是你的选择。

“国家地理科学探索丛书”分为9个系列，内容涉及自然科学和社会研究，秉承《国家地理》杂志图文并茂的特色，书中配有大量精彩的图片，文字通俗易懂、深入浅出，将科学性和趣味性完美结合，称得上是一套精致的小百科。

这套丛书以英文注释形式出版，注释由国内重点中学教学经验丰富的英语教师完成。特别值得推荐的是本套丛书在提高青少年读者英语阅读能力的同时，还注重培养他们的科学探索精神、动手能力、逻辑思维能力和沟通能力。

本丛书既适合学生自学，又可用于课堂教学。丛书各个系列均配有一本教师用书，内容包括背景知识介绍、技能训练提示、评估测试、多项选择题及答案等详尽的教学指导，是对课堂教学的极好补充。

本套丛书是适合中学生及英语爱好者的知识读物。

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GARE THOMPSON (美) 著

余国英 注

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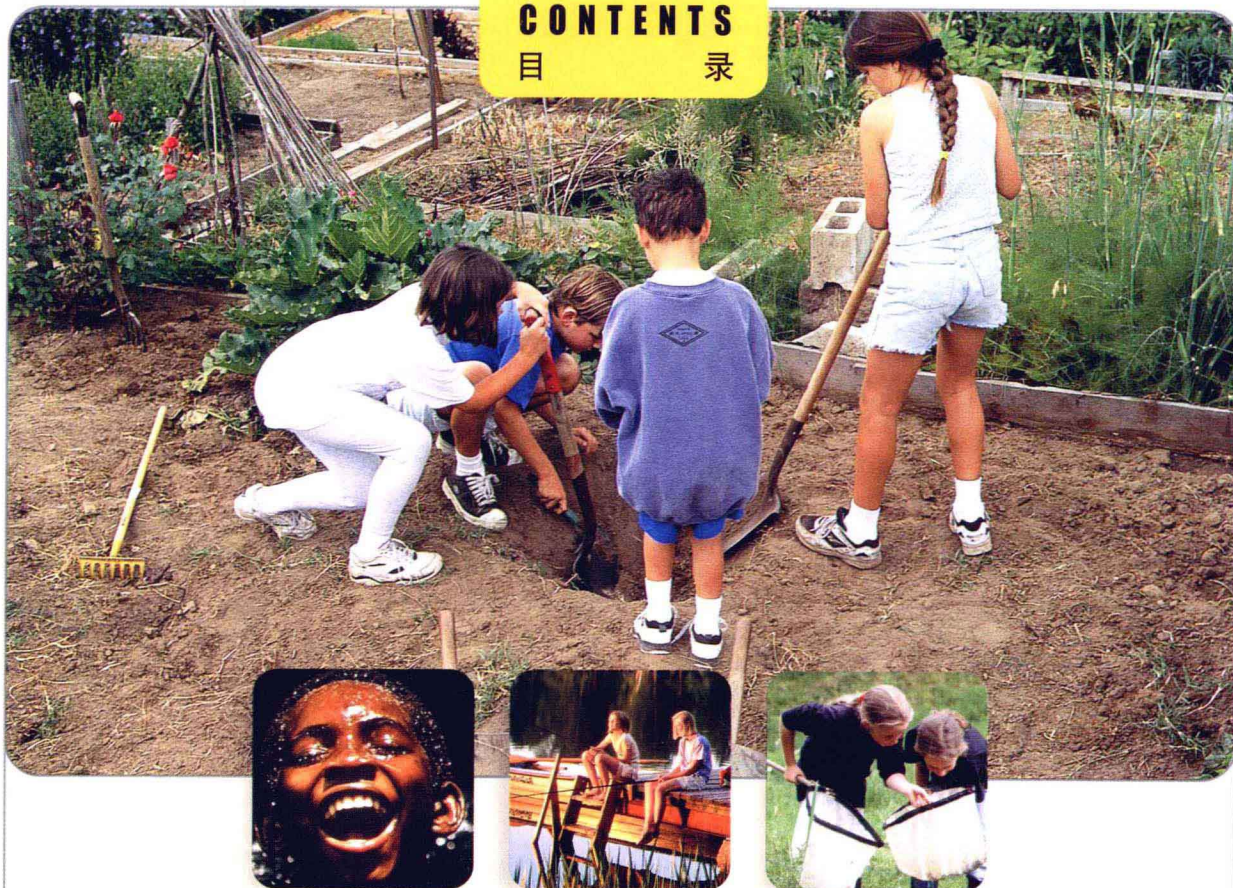
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## INTRODUCTION

引

言

- |              |    |         |
|--------------|----|---------|
| 1. shelter   | n. | 住所; 庇护所 |
| 2. breathe   | v. | 呼吸      |
| 3. make sure |    | 确保      |

# Earth's Natural Resources

## 地球的自然资源

We all need water to drink, land to grow food and build shelters, and air to breathe. But in the future will we have enough water, land, and air? How can we make sure we do? What actions can you take to help care for the Earth?



Our Earth is filled with many useful things found in nature. These things are called natural resources.

Some of our natural resources are

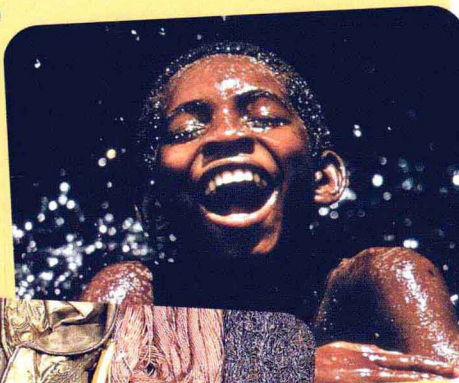
- plants
- water
- land
- air
- minerals<sup>1</sup>
- fuels<sup>2</sup>

We use minerals, such as copper<sup>3</sup>, silver, and quartz<sup>4</sup>, to make wires<sup>5</sup>, jewelry<sup>6</sup>, computers, and so many other products. We burn fuels, like oil and gasoline<sup>7</sup>, to heat our homes and power<sup>8</sup> our cars.

**But what happens to natural resources after we use them?**

There are two kinds of natural resources on Earth. Resources that can be replaced<sup>9</sup> or replace themselves are called renewable<sup>10</sup> resources. Resources that are gone after we use them are called nonrenewable resources.

1. mineral	<i>n.</i>	矿物
2. fuel	<i>n.</i>	燃料
3. copper	<i>n.</i>	铜
4. quartz	<i>n.</i>	石英
5. wire	<i>n.</i>	电线
6. jewelry	<i>n.</i>	珠宝
7. gasoline	<i>n.</i>	汽油
8. power	<i>v.</i>	给……提供动力
9. replace	<i>v.</i>	替代
10. renewable	<i>adj.</i>	可再生的
11. fertilizer	<i>n.</i>	肥料
12. energy	<i>n.</i>	能量



### Renewable Resources

- Land can be renewed by adding fertilizer<sup>11</sup> to the soil or by changing the crops grown on it.
- Trees can be replanted.
- Water is renewed whenever it rains or snows.

### Nonrenewable Resources

- Minerals that are mined and used cannot be replaced.
- Fuels that are burned and used for energy<sup>12</sup> cannot be replaced.





Our renewable natural resources—water, land, and air—will not last forever if we don't care for them. We have to learn to conserve<sup>1</sup>, or protect<sup>2</sup>, these resources. We have to learn to manage them wisely<sup>3</sup>.

For most of us, water seems like a never-ending resource. It pours<sup>4</sup> out of the tap<sup>5</sup> whenever we need some. As the world population<sup>6</sup> grows, more and more people are using

water. Conserving our water helps ensure<sup>7</sup> that future generations<sup>8</sup> will still have clean, usable water.

We need clean air to breathe. Our lawmakers<sup>9</sup> have passed laws to help keep our air clean. But many people are trying to find their own ways to keep our air clean and healthy<sup>10</sup>. Some people ride bikes, walk, or take buses or subways<sup>11</sup> instead of driving.

1. conserve	v.	保护
2. protect	v.	保护
3. wisely	adv.	明智地
4. pour	v.	不断流出
5. tap	n.	水龙头
6. population	n.	人口
7. ensure	v.	确保
8. future generations		后代
9. lawmaker	n.	立法者
10. healthy	adj.	对健康有益的
11. subway	n.	地铁





# Using Earth's Resources

## 利用地球资源

*Water, land, and air are important natural resources. We use these resources every day. We depend on<sup>1</sup> them for life. Think about the many ways people depend on Earth's resources.*

### We use water to

- wash and clean
- drink
- water plants and gardens
- swim and fish
- travel from place to place

### We use air to

- breathe and support<sup>2</sup> life

### We use land to

- plant flower gardens
- grow food crops

- grow trees to make paper and wood products build homes
- do recreational<sup>3</sup> sports, such as camping<sup>4</sup> and hiking<sup>5</sup>

### How do you use these resources?

### How do you think businesses and industries<sup>6</sup> use these resources?

1. depend on		依靠
2. support	v.	维持
3. recreational	adj.	消遣的, 娱乐的
4. camping	n.	宿营
5. hiking	n.	徒步旅行
6. industry	n.	工业
7. liter	n.	公升
8. gallon	n.	加仑
9. topsoil	n.	表层土
10. acre	n.	英亩
11. dime	n.	(美国和加拿大的)一角硬币
12. average	adj.	普通的



**People drink over 60,565 liters<sup>7</sup> (16,000 gallons<sup>8</sup>) of water during their lifetime.**

**Five tons of topsoil<sup>9</sup> spread over one acre<sup>10</sup> is only as thick as a dime<sup>11</sup>.**

**The average<sup>12</sup> person takes about 20,000 breaths a day.**





Businesses and industries—large and small—are an important part of our country's economy<sup>1</sup>. The economy is the way a country produces and uses goods, services, and natural resources. The United States is rich in natural resources. Here are some ways industries use these resources.

## Water

Huge freighters<sup>2</sup> transport<sup>3</sup>, or carry, goods from one part of the world to another on our waterways<sup>4</sup>.

Transportation



Farming



Timber Harvesting

Hydroelectric plants<sup>5</sup> use water to make electricity<sup>6</sup>. Some factories depend on these plants for the power to run their machinery<sup>7</sup>.

Farmers use water to irrigate<sup>8</sup> their crops.

## Land

Farmers use land to grow food and plants like cotton and to raise<sup>9</sup> animals.

Highways<sup>10</sup> and train tracks<sup>11</sup> are built on the land. Industries transport their goods from place to place on highways and train tracks.

Companies mine<sup>12</sup> minerals from the land. Industries depend on minerals to manufacture<sup>13</sup> products.

Foresters<sup>14</sup> grow and harvest trees to make paper, furniture<sup>15</sup>, and homes.

## Air

The transportation industry depends on air to fly planes, jets<sup>16</sup>, and hot air balloons. The communications<sup>17</sup> and entertainment<sup>18</sup> industries use the airwaves<sup>19</sup>. Most of the sounds we hear travel through the air.

1. economy	n.	经济	10. highway	n.	公路; 交通干线
2. freighter	n.	货船	11. track	n.	轨道
3. transport	v.	运输	12. mine	v.	开采
4. waterway	n.	水道	13. manufacture	v.	(大量)生产
5. hydroelectric plant		水力发电厂	14. forester	n.	在森林居住及工作的人
6. electricity	n.	电	15. furniture	n.	家具
7. machinery	n.	机械	16. jet	n.	喷气式飞机
8. irrigate	v.	灌溉	17. communication	n.	通讯
9. raise	v.	饲养	18. entertainment	n.	娱乐
			19. airwaves	n.	电波



# Renewable Resources

*Water, land, and air are renewable resources. They renew themselves through cycles<sup>1</sup>. These cycles ensure that these resources can be renewed or replaced over time.*

## Water

Plants, animals, and people need water to live. Water is the most common substance<sup>2</sup> on Earth, yet our supply of usable water is limited.

Water covers more than 70 percent<sup>3</sup> of the Earth's surface<sup>4</sup>. About 97 percent of the water on Earth is in the oceans<sup>5</sup>, which are salty<sup>6</sup>. Only 3 percent is fresh<sup>7</sup>, and most of that water is ice. We need fresh water to drink and to grow crops.

Today we have as much water as the dinosaurs<sup>8</sup> did! The water on Earth replaces itself through the water cycle.

1. cycle	<i>n.</i>	循环
2. substance	<i>n.</i>	物质
3. percent	<i>n.</i>	百分之一
4. surface	<i>n.</i>	表面
5. ocean	<i>n.</i>	海洋
6. salty	<i>adj.</i>	咸的
7. fresh	<i>adj.</i>	淡的
8. dinosaur	<i>n.</i>	恐龙
9. vapor	<i>n.</i>	蒸汽
10. condense	<i>v.</i>	凝结; 凝固
11. liquid	<i>n.</i>	液体
12. precipitation	<i>n.</i>	降水
13. seep	<i>v.</i>	渗进
14. evaporation	<i>n.</i>	蒸发

### Take a Closer

## LOOK

### The Water Cycle

As the air cools, the vapor<sup>9</sup> condenses,<sup>10</sup> or changes back into a liquid.<sup>11</sup>

Condensation

Precipitation<sup>12</sup>

Water returns to the earth as rain, snow, or other precipitation.

Water vapor rises and is carried by the air.

Evaporation

The sun heats water in the soil, rivers, lakes, and oceans. The water evaporates, and turns to water vapor, a gas.

Some water seeps<sup>13</sup> into the ground. Some water returns to the oceans.

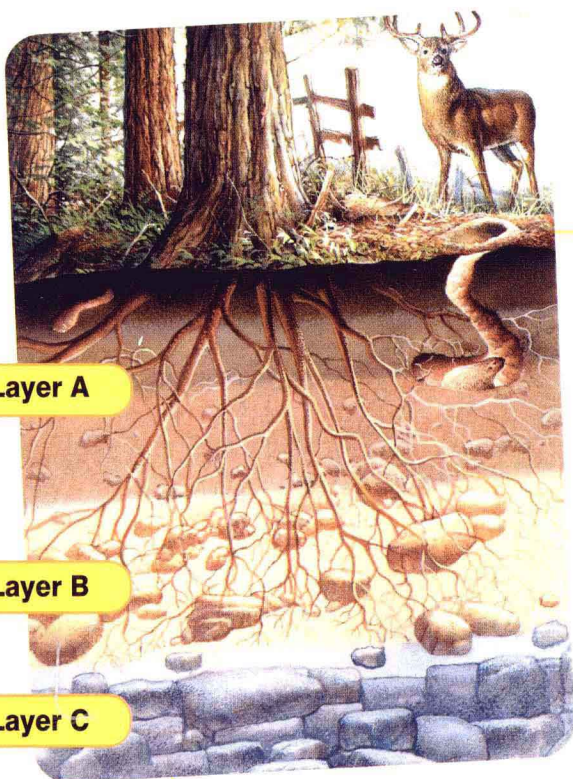


## Land

An important part of land is its soil. Plants need soil to grow. People and animals need plants for food.

Soil generally<sup>1</sup> has three layers<sup>2</sup>. The top layer is the most important to plants. This layer is rich in nutrients<sup>3</sup>, or plant food. It is called topsoil. The richer the soil, the better plants grow. The diagram<sup>4</sup> shows the layers of soil.

1. generally	<i>adv.</i>	一般地
2. layer	<i>n.</i>	层
3. nutrient	<i>n.</i>	营养
4. diagram	<i>n.</i>	示意图
5. alive with		充满的
6. root	<i>n.</i>	根
7. tiny	<i>adj.</i>	极小的
8. bacterium	<i>n.</i>	( <i>pl.</i> bacteria)细菌
9. fungus	<i>n.</i>	( <i>pl.</i> fungi)真菌
10. worm	<i>n.</i>	虫



Layer A

Layer B

Layer C

## Take a Closer

# LOOK

## How Soil is Formed

Rain, ice, and other natural forces<sup>16</sup> break down rocks.

Organisms<sup>17</sup> living on the rocks die and decay.

Sand and silt<sup>18</sup> forms.

Soil begins to form from rocks and decaying plants and animals.

As soil develops, the top level becomes deep enough to support plant roots.

11. decay	<i>v.</i>	腐烂
12. rot	<i>v.</i>	烂; 腐烂
13. contain	<i>v.</i>	包含; 包括
14. clay	<i>n.</i>	黏土
15. solid	<i>adj.</i>	结实的
16. natural force		自然力
17. organism	<i>n.</i>	生物
18. silt	<i>n.</i>	泥沙

## Soil's Three Layers

**Layer A** is topsoil. Topsoil is alive with<sup>5</sup> roots<sup>6</sup> and tiny<sup>7</sup> living things, such as bacteria<sup>8</sup>, fungi<sup>9</sup>, and worms<sup>10</sup>. When these living things die, they decay<sup>11</sup>, or rot<sup>12</sup>. They turn into the nutrients that make the soil rich and healthy.

**Layer B** is the second layer. It contains<sup>13</sup> a lot of clay<sup>14</sup>. Plants and animals have a difficult time getting through this hard layer.

**Layer C** is the third layer. It is made of broken rock. At the bottom is solid<sup>15</sup> rock that turns into the two layers above it.



## Air

We all need air to breathe. Air is a mixture<sup>1</sup> of gases. Two of these gases are oxygen<sup>2</sup> and carbon dioxide<sup>3</sup>. It is the oxygen in the air that we need to live.

Oxygen is renewed through the oxygen-carbon dioxide cycle. The diagram below shows how oxygen in the air is renewed.

1. mixture	<i>n.</i>	混合物
2. oxygen	<i>n.</i>	氧
3. carbon dioxide		二氧化碳
4. process	<i>n.</i>	过程



5. photosynthesis	<i>n.</i>	光合作用
6. give off		放出
7. release	<i>v.</i>	释放
8. respiration	<i>n.</i>	呼吸

### Take a Closer

## LOOK

### *The Oxygen-Carbon Dioxide Cycle*

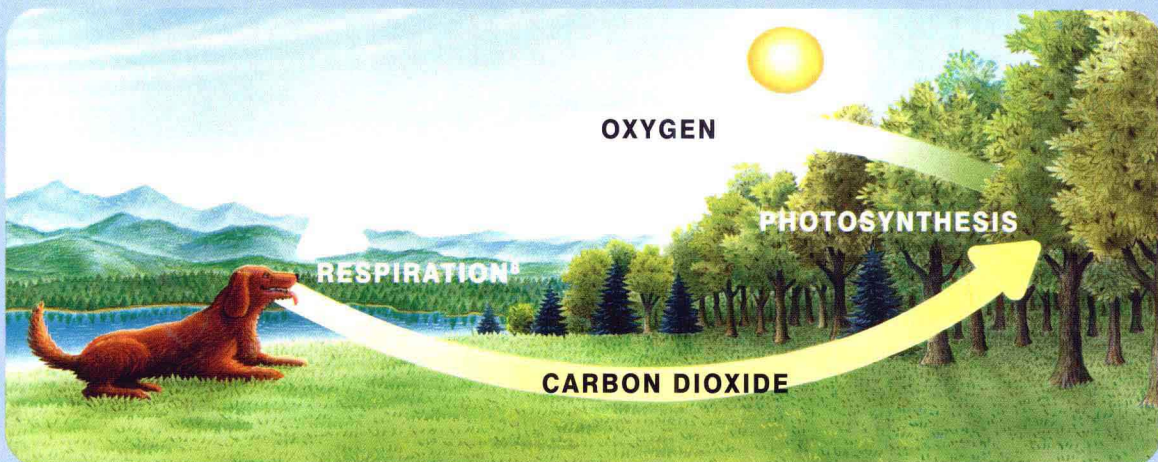
1. Plants use light to make their own food.

This process<sup>4</sup> is called photosynthesis<sup>5</sup>.

2. During photosynthesis plants take in carbon dioxide and give off<sup>6</sup> oxygen.

3. Oxygen is released<sup>7</sup> into the air.

4. People and animals breathe in oxygen.  
They breathe out carbon dioxide.





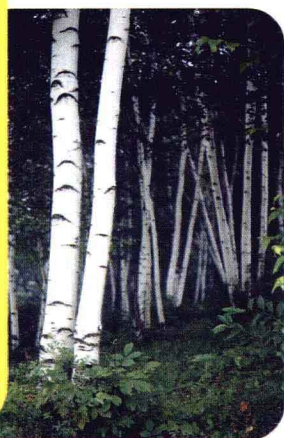


**People all over the world have been celebrating<sup>8</sup> Earth Day each year since 1970.**



## Earth Watch

**People have cut down almost two-thirds of the original forests<sup>7</sup> on Earth to clear the land for other uses.**



Long ago, most people did not worry about natural resources. The rivers, lakes, and oceans were clean. People could find plenty of<sup>1</sup> rich land to farm<sup>2</sup>. There seemed to be an endless<sup>3</sup> supply of natural resources.

But today many more people live in our world. We are rapidly<sup>4</sup> using up<sup>5</sup> or polluting<sup>6</sup> our resources. Today we need to find ways to protect or replace our resources.

- |                    |             |       |
|--------------------|-------------|-------|
| 1. plenty of       |             | 充足的   |
| 2. farm            | <i>v.</i>   | 耕作    |
| 3. endless         | <i>adj.</i> | 无穷无尽的 |
| 4. rapidly         | <i>adv.</i> | 迅速地   |
| 5. use up          |             | 用完    |
| 6. pollute         | <i>v.</i>   | 污染    |
| 7. original forest |             | 原生林   |
| 8. celebrate       | <i>v.</i>   | 庆祝    |



# The Changing Earth

## 变化中的地球

*People change the Earth by not taking care of its resources. We waste resources. We also pollute them. We can't drink or wash with polluted water. We can't farm land that has been polluted. We can't breathe air that has been polluted.*

1. kilogram	<i>n.</i>	千克
2. pound	<i>n.</i>	磅
3. trash	<i>n.</i>	垃圾



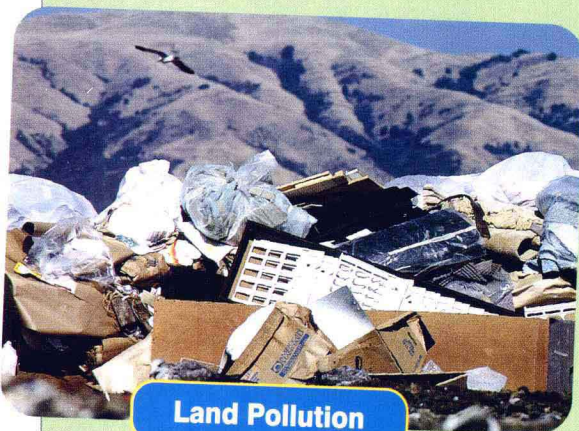
### Earth Watch

**Did you know that the average American throws away 2 kilograms<sup>1</sup> (4.3 pounds<sup>2</sup>) of trash<sup>3</sup> each day?**

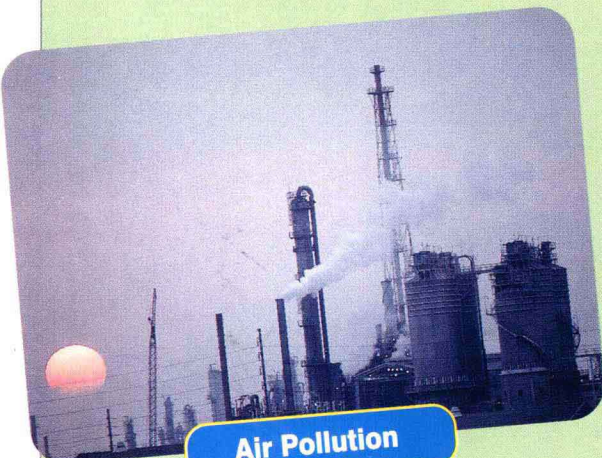




**Water Pollution**



**Land Pollution**



**Air Pollution**

## How do people change or pollute natural resources?

### How is water polluted?

Factories dump<sup>1</sup> chemicals<sup>2</sup> into rivers, lakes, and streams<sup>3</sup>.

People throw trash and garbage<sup>4</sup> into the water. Farmers use pesticides<sup>5</sup> and fertilizers. These chemicals run off the land into the water.

Untreated<sup>6</sup> waste is dumped into the water.

Tankers<sup>7</sup> have accidents and oil spills<sup>8</sup> into the waters.

### How is land polluted?

People litter<sup>9</sup>.

Farmers spray<sup>10</sup> pesticides onto crops.

Waste materials, such as old cars or paints and cleaning products, are left in trash dumps.

Factories have industrial accidents, such as chemical spills.

### How is air polluted?

Cars, buses, and trucks burn fuels. Wastes from burning fuels pollute the air.

Homes and power plants burn coal, oil, or gas for energy.

Factories give off toxic<sup>11</sup>, or poisonous<sup>12</sup>, smoke.

People use aerosol cans<sup>13</sup>.

1. dump	<i>v.</i>	倾倒
2. chemical	<i>n.</i>	化学品
3. stream	<i>n.</i>	溪流
4. garbage	<i>n.</i>	垃圾
5. pesticide	<i>n.</i>	杀虫剂
6. untreated	<i>adj.</i>	未经处理的
7. tanker	<i>n.</i>	油轮
8. spill	<i>v.</i>	泄漏
9. litter	<i>v.</i>	乱扔废弃物
10. spray	<i>v.</i>	喷
11. toxic	<i>adj.</i>	有毒的
12. poisonous	<i>adj.</i>	有毒的
13. aerosol can		喷雾剂罐



# People Waste Resources

People waste water, land, and air. We leave water running when we are not using it. We take long showers<sup>1</sup>. A 5-minute shower uses 95-132 liters (25-35 gallons) of water. Think how much water you would be wasting if you took a 20-minute shower!

We waste land resources by cutting down trees without replacing them. We farm the same land for many years. If improperly<sup>2</sup> managed, these farmlands can use up nutrients in the soil. Then the land becomes barren<sup>3</sup> and crops cannot grow on it.

We waste air by filling it with smoke. Smoking or burning fires without good ventilation<sup>4</sup>, or air circulation<sup>5</sup>, dirties<sup>6</sup> the air. By not smoking, people can keep the air cleaner.

1. shower	<i>n.</i>	淋浴
2. improperly	<i>adv.</i>	不恰当地
3. barren	<i>adj.</i>	贫瘠的
4. ventilation	<i>n.</i>	通风
5. circulation	<i>n.</i>	循环
6. dirty	<i>v.</i>	弄脏
7. greenhouse effect		温室效应
8. concern	<i>v.</i>	担忧; 关心
9. atmosphere	<i>n.</i>	大气层
10. fossil fuel		矿物燃料
11. increase	<i>v.</i>	增加
12. condition	<i>n.</i>	情况; 状态
13. global warming		全球变暖
14. melt	<i>v.</i>	融化
15. low-lying	<i>adj.</i>	低洼的
16. coastal	<i>adj.</i>	沿海的
17. reduce	<i>v.</i>	减少

## The Greenhouse Effect<sup>7</sup>

In recent years scientists have become very concerned<sup>8</sup> about the greenhouse effect. There are gases in the Earth's atmosphere<sup>9</sup> that act like the glass in a greenhouse. They let the sunlight in, but they don't let the sun's heat out. Greenhouse gases come from burning fossil fuels<sup>10</sup> (coal, oil) used by industries, cars, and trucks. These gases are increasing<sup>11</sup>.

Most scientists are worried that as these gases increase, the Earth will get too warm. This condition<sup>12</sup> is called global warming<sup>13</sup>. If the Earth does grow warmer, the ice at the North and South poles will begin to melt<sup>14</sup>. Then our oceans will spill over low-lying<sup>15</sup> coastal<sup>16</sup> areas. World leaders are trying to find ways to reduce<sup>17</sup> greenhouse gases. The diagram below shows the greenhouse effect.

