标准英语分级读物·学生卷·第1级

伟大的发明和它们的由来

GREAT INVENTIONS

AND WHERE THEY CAME FROM

原版美国阅读教程
内附全套教学指导及练习
用英文阅读，学百科知识

完美实现国家新课程标准要求

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特别推荐

童趣出版有限公司编译　人民邮电出版社出版

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标准英语分级读物·学生卷·第1级
伟大的发明和它们的由来
责任编辑：孙蓓　封面设计：曹爱华
童趣出版有限公司编译
人民邮电出版社出版
北京市崇文区夕照寺街14号(100061)
新华书店总店北京发行所经销
北京慕来印刷有限公司印制
北京汉魂图文设计有限公司制版
开本：787×1092　1/16　印张：2.5
2002年12月第一版　2002年12月第一次印刷
图字：01-2002-3581　印数：1-5,000册
书号：ISBN 7-115-10690-8/G·905
本辑定价：27.60元（共四册）

最佳学习安排

训练正确阅读习惯，提高理解分析能力

第一步，正式的学习开始之前，请先认真阅读封面封底，以了解本书的特点。

第二步，在开始阅读某一本书时，首先阅读目录页，然后粗略翻阅全书各页，看一看照片和图表。根据以上粗读所获信息判断出本书的基本内容和主题。

第三步，想一想你已经掌握了多少关于本书主题的知识。

第四步，开始阅读。阅读的重点放在与主题相关的新知识上。哪些是你通过阅读本书获得的新知识，用简洁的方式做上标记。

第五步，边读边标出你有切身体会的地方，你喜欢或支持的观点或做法。

第六步，遇到当页注释中没有的生词，要尽量根据上下文猜出它的意思，而不要马上查词典，以免打断阅读。将这些生词标出来，读后查词典印证你的猜测。

第七步，读完后，总结文章主要讲的是什么，并在文中找出具体内容支持你的判断。

写作

第八步，完成阅读后，写出本书提要。

第九步，分析本书文章的写作方法，按要求完成“教学指导与练习”中的写作练习。

口语讨论

第十步，与同学们就本书主题展开讨论，并提出自己的观点和结论。

付诸行动

第十一步，行动起来，完成“教学指导与练习”中设计的全部活动，包括科学实验和社会活动！

重 要 提 示

利用词汇注释巩固和扩充词汇量

为扩充学生词汇量，超出高中课本范围的词汇在读本各页中做了注释，并汇总在书后词汇表和索引中，以方便学习和记忆。

利用音标学习单词发音

为规范本读物的音标标注方法，并更充分地体现美式发音的特点，本读物采用标准的Jones国际音标和K.K音标，Jones在前，K.K在后，同时标注同一个单词。此两种音标为目前使用最多的音标系统，而K.K音标又能充分体现美式发音的特点。音标查证以商务印书馆的《牛津高阶英汉双解词典》（第四版）为准。

Great Inventions and Where They Came From

伟大的发明和它们的由来

By Jackie Glassman

王金玉 注

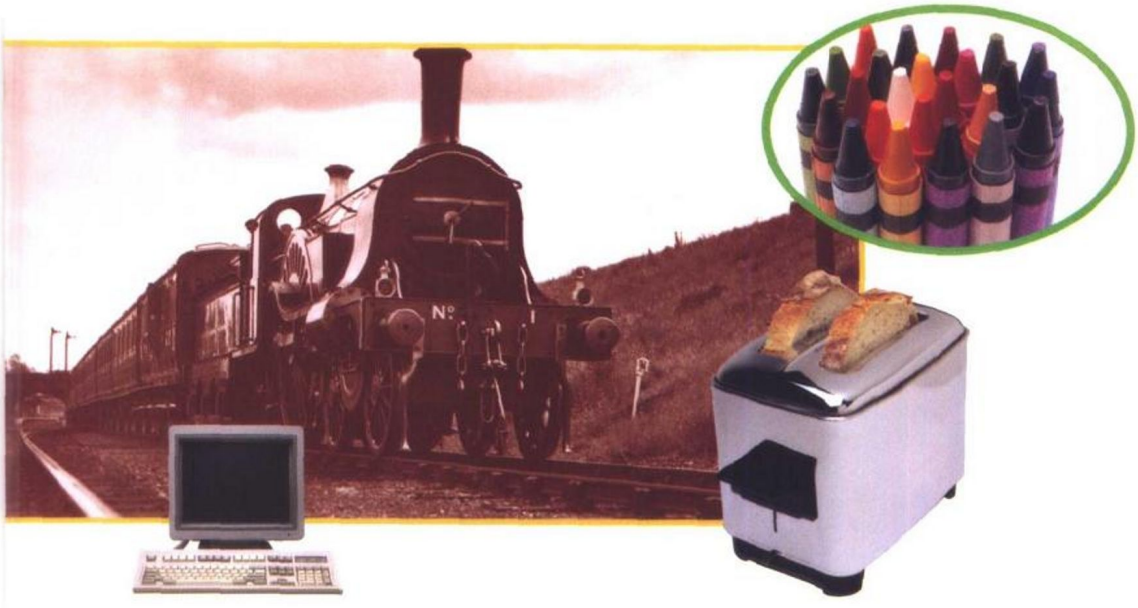
目 录

童趣出版有限公司编译　　人民邮电出版社出版

How Inventions Changed Our World

Does the word "invention" make you think of a giant machine with lots of buttons and **gadgets**? Or bubbling test tubes and notebooks filled with equations?

Many people think that inventions are complex and have little to do with their own lives. But, in fact, you use inventions every day.



invention [ɪn'venʃn, ɪn'vɛnʃən] n.发明、创造
giant ['dʒaɪənt] n. 庞然大物
button ['bʌtn, 'bʌtn̩] n.按钮
bubble ['bʌbl, 'bʌbl̩] v.冒泡、起泡
tube [tju:b, tub] n.管
equation [ɪ'kweɪʃən, ɪ'kweʒən] n.方程式、等式
complex ['kɒmpleks, kəm'plɛks] a.复杂的、难懂的
gadget ['gædʒɪt] n.精巧的装置

The telephone you use to call your friend. The chewing gum you blow a bubble with. The zipper you pull up to fasten your jacket. These are only a few of the different inventions you use every day. From riding your school bus to surfing the Web, your life would not be the same without inventions.

EVERYDAY INVENTIONS

Make a list of the inventions you use in your daily life and what they help you do. Here are a few to get you started:

Invention	What It Does
alarm clock	wakes me up
microwave	pops popcorn

chewing gum n. 口香糖
zipper ['zɪpə,'zɪpɚ] n. 拉链
fasten ['fɑ:sn, 'fæsn] v. 束牢、系牢
surfing ['sɜ:fɪŋ, 'sɝfɪŋ] n. 冲浪（运动）
pull up 拉起、拔起
popcorn ['pɒpkɔ:n, 'pɑp,kɔrn]n. 爆玉米花

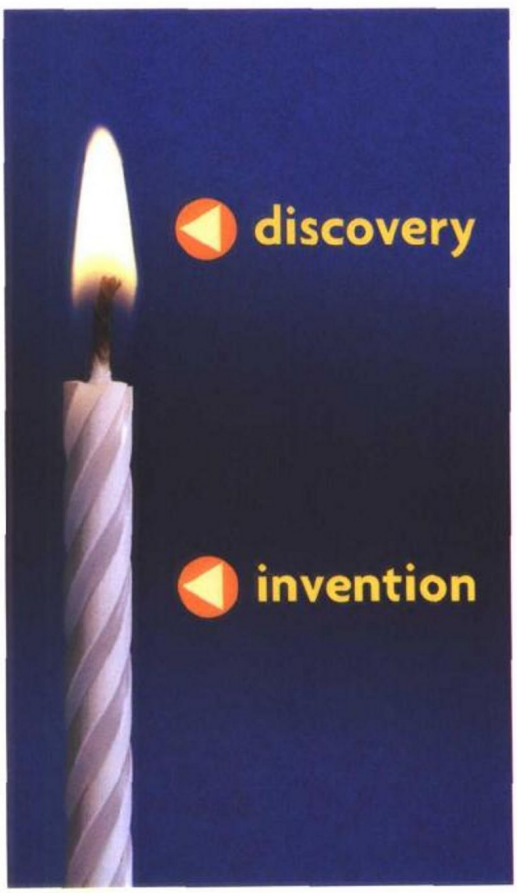
The Invention Process

1. Identify a problem.
2. Come up with a list of possible solutions.
3. Design an invention that will solve the problem.

Some people are lucky enough to invent things accidentally. But most **inventors** follow a step-by-step process.

process ['prəʊses, 'prɑsɛs] n.过程、程序
identify [aɪ'dentɪfaɪ, aɪ'dɛntəˌfaɪ] v.识别、鉴定
solution [sə'lu:ʃn, sə'luʃn] n.解决、解答
design [dɪ'zaɪn] v.设计
solve [sɒlv, sɑlv] v.解释、解答
accidentally [ˌæksɪ'dentəlɪ, ˌæksə'dentlɪ] ad.偶然
inventor [ɪn'ventə, ɪn'vɛntɚ] n.发明家

Sometimes people confuse inventions with discoveries. An invention is something that is created. A discovery is something that already exists. For example, a candle is an invention. The fire it gives off, however, is a discovery. Sometimes a discovery leads to new inventions.



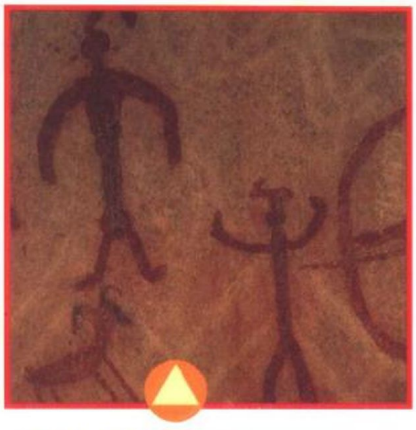
DISCOVERIES LEAD TO INVENTIONS

Read the following lists of discoveries and inventions. Try to match each discovery with a related invention. (See page 25 for answers.)

DISCOVERY	INVENTION
magnetism	light bulb
helium	medicine
Pluto	compass
electricity	balloon
germs	telescope

confuse [kən'fju:z, kən'fjuz] v.混同，搞乱
create [kri:'eɪt, krɪ'et] v.创造
discovery [dɪ'skʌvərɪ] n.发现
exist [ɪg'zɪst] v.存在
give off 散发，发出
lead to 导致，通向

An Invention Right Under Your Nose

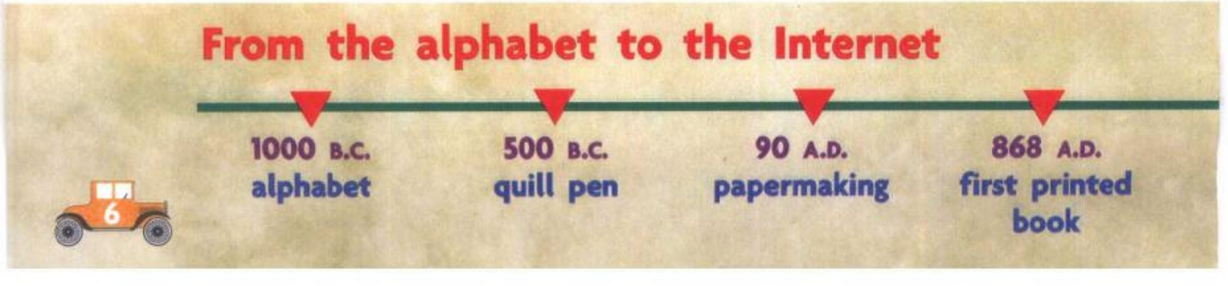


Before there was an alphabet, people drew pictures to communicate. These paintings are from a cave in Arizona.

alphabet ['ælfəbet, 'ælfəbɛt] n.字母表
Syria ['sɪrɪə] n.国名，叙利亚
powerful ['paʊəfl, 'paʊɚfəl] a.有力的、有势力的
merchant ['mɜ:tʃənt, 'mɝtʃənt] n.商人、批发商
trade [treɪd, tred] v.经商、交换
the Mediterranean 地中海
track [træk] n.轨迹、路径
system ['sɪstəm] n.系统、体系
Phoenician [fi'nɪʃən] n.腓尼基人

Take a closer look at this book. Can you name some of the inventions that have made this book possible?

First of all, the alphabet had to be invented. Three thousand years ago, the Phoenicians, who lived in Syria, invented the first alphabet. They were very powerful merchants and grew rich by trading with neighbors who lived around the Mediterranean Sea. In order to keep track of all of their business, the Phoenicians invented a simple system that allowed them to keep written records that everyone could understand. The system they came up with was the alphabet.



THE MODERN ALPHABET

Phoenician	𐤀 𐤁 𐤂 𐤃 𐤄 𐤅 𐤆 𐤇 𐤈 𐤉 𐤊 𐤋 𐤌 𐤍 𐤎 𐤏 𐤐 𐤑 𐤒 𐤓 𐤔 𐤕
Early Greek	Α Β Γ Δ Ε Ϝ Ζ Η Θ Ι Κ Λ Μ Ν Ξ Ο Π Ϻ Ρ Σ Τ Υ Φ Χ Ψ
Roman	A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

The Greeks copied the alphabet from the Phoenicians. Then the Romans copied it from the Greeks. Today, the Roman alphabet is used around the world.

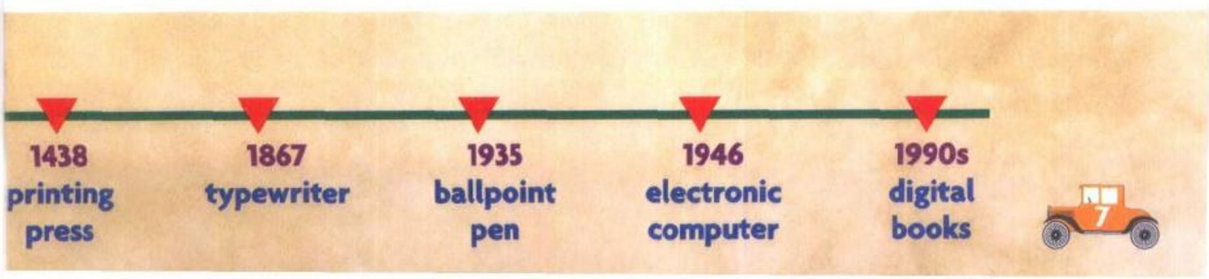
Once there was an alphabet, people gradually began to invent things that would help them write it more easily. As early as 1300 B.C., the Chinese and the Egyptians invented ways to make ink from soot, water, and plants.

The **quill** pen was invented in 500 B.C. It was made of bird feathers. This early invention led to later inventions that made writing even easier, such as the ballpoint pen and the pencil.

Quill pens were still being used at the time the Declaration of Independence was signed.

The Chinese invented a process to make paper in 90 A.D. They soaked wood and rags in water and beat the mixture into a pulp. Once the pulp dried, they were able to use it to make the paper.

gradually ['grædjuəlɪ, 'grædʒʊlɪ] ad.逐渐地
soot [sʊt, sʊt] n.烟灰
quill [kwɪl] n.羽茎，大翎毛
soak [səʊk, sok] v.浸、泡
pulp [pʌlp] n.纸浆
rag [ræg] n.破布
mixture ['mɪkstʃə, 'mɪkstʃʊ] n.混合物



A Chinese artist from the tenth century works with his blocks and ink. Some of his finished pieces are drying behind him.

MAKE A POTATO PRINT

You can use a potato to make raised images for printing.

1. Using a marker, draw a simple design onto the surface of a potato half.
2. Ask an adult to carve around the design so it is raised on the potato.
3. Dip the potato stamp into paint and press onto paper.

The Chinese also invented the very first form of printing. In the eighth century, they carved raised images into wooden blocks. They spread ink on these blocks and then pressed paper over them. Because the paper absorbed the ink, the images were transferred to the paper.

print [prɪnt] v.印刷
carve [kɑ:v, kɑrv] v.刻、雕刻
image ['ɪmɪdʒ] n.图像、肖像
block [blɒk, blɑk] n.木块
press [pres] v.压、按
absorb [əb'sɔ:b, əb'sɔrb] v.吸收
transfer [træns'fɜ:, træns'fɚ] v.转移、转运

Johannes Gutenberg examines a page from his first printing press.

Printing moved into a new era with the invention of the **printing press** in 1438. Johannes Gutenberg , a German goldsmith, made printing with blocks cheaper and easier by using movable type. He fit together small metal letters on a frame. By pressing the letters against paper, he was able to print over and over again.

Gutenberg's invention allowed many more people to share ideas and information. Today, the printing press is still used to print books and other materials.

era ['ɪərə, 'ɪrə] n.时代，纪元
goldsmith ['gəʊldsmɪθ, 'goldsmɪθ]
n.金币工人，金匠
movable ['mu:vəbl, 'muvəbl]
a.移动的、活动的、变动的
material [mə'tɪərɪəl, mə'tɪrɪəl]
n.材料、原料、素材
Johannes Gutenberg ['gu:tənbɜ:g, 'gutənbɝg]
n.谷登堡，西方活字印刷术发明者

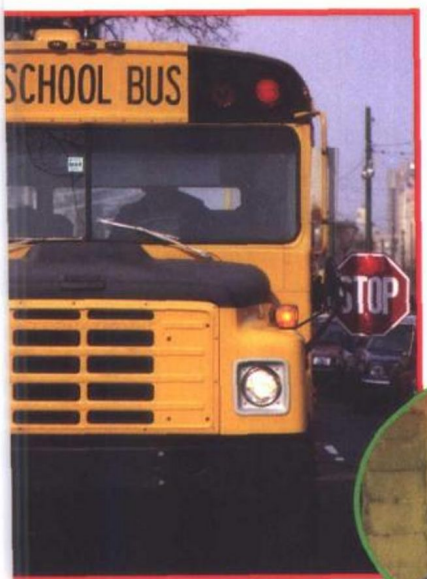
Inventions on the Move

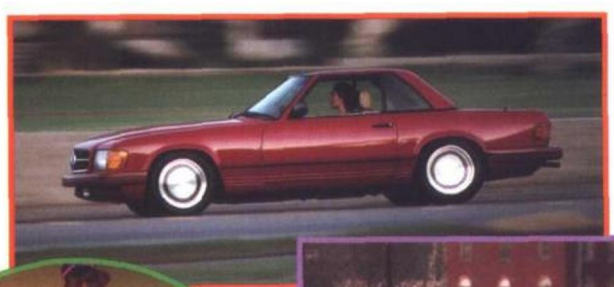
It's a FACT!

It may sound like an insect, but "velocipede" ("fast foot") was the original name for the bicycle.

You take the bus to school and pedal your bike to the park. Your parents drive a car or take a train to work. Sometimes you may even ride in a plane or sail in a boat. Today it is very easy to get from place to place, but it hasn't always been that way. Let's find out how different forms of **transportation** were invented.

pedal ['pedl, 'pɛdḷ] v.用脚踏、踩…踏板
transportation [trænspɔ:'teɪʃən, trænspə'teʃən] n.运输，运输工具





From the wheel to the space shuttle

- 3500 B.C. — wheel
- 2000 B.C. — chariot
- 1803 — steam engine
- Early 1800s — bicycle

This ancient clay model of a four-wheeled chariot was created in southern Mesopotamia between 1900-1600 B.C.

The wheel, invented more than 5,000 years ago, remains one of the most important inventions of all time.

The first wheel was made in Mesopotamia and was used by potters to shape clay. It dates back fifty-five centuries. Around that same time, these heavy wooden wheels were also used on carts to move big objects. Now, of course, wheels can be found on everything from rollerblades to high-speed trains to space shuttles.

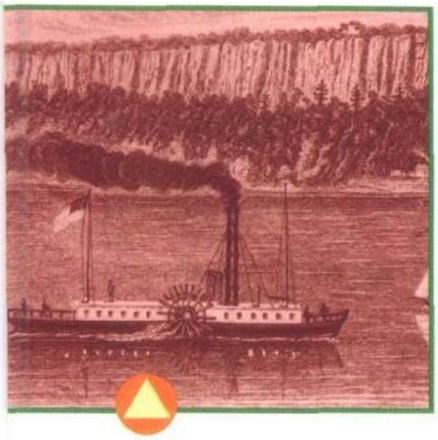
THINK IT OVER!

How many forms of transportation have you used in the last three days? Make a list. Compare it with a friend's.

When we think of wheels, we picture cars, bikes, trains, and other vehicles, but wheels are also on clocks and toys. Look around you. Where else do you see wheels?

vehicle ['vi:ɪkl, 'vihɪkl]
n. 车辆，交通工具
potter ['pɒtə, 'pɑtɚ]n. 陶工
shape [ʃeɪp, ʃep]
v. 制作，定形
clay [kleɪ, kle] n. 黏土
shuttle ['ʃʌtl]
n. 短程来回的汽车(列车、飞机)；航天飞机
chariot ['tʃærɪət]n. 战车、兵车
Mesopotamia[mesəpə'teɪmɪə, mɛsəpə'teɪmɪə]
n. 地名，美索不达米亚

1885 first car
1903 airplane
1908 assembly line
1959 snowmobile
1981 space shuttle



This is the steamboat *Clermont*. It operated on the Hudson River in New York.

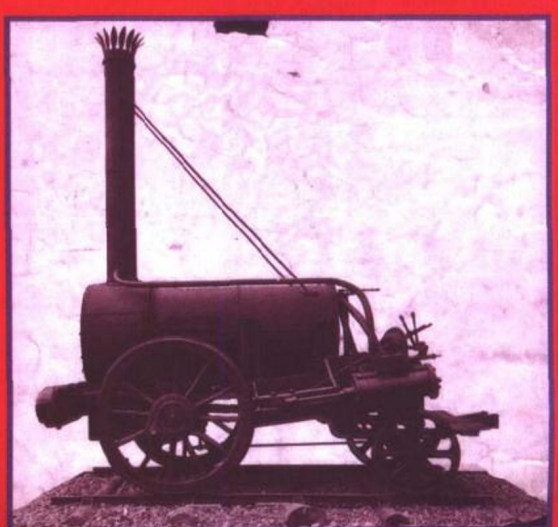
Another important invention enabled many new forms of transportation to develop. This invention was the steam engine. A steam engine uses heated water to create power.

In 1770, the world's first passenger steamboat carried people from Philadelphia to Trenton, New Jersey. In 1804, the first **steam locomotive** was built.

enable [ɪn'eɪbl, ɪn'ebl] v. 使…能够
engine ['endʒɪn, 'ɛndʒən] n. 发动机、机车、车头
locomotive ['ləʊkəməʊtɪv, lokə'motɪv] n. 机车、火车头
standard ['stændəd, 'stændɚd] n. 标准、水平

THE ROCKET

At 30 miles per hour, the steam train called the *Rocket* became the first vehicle to travel faster than a horse. This may not seem very fast by today's standards, but during the 1820s, this speed was record-setting.



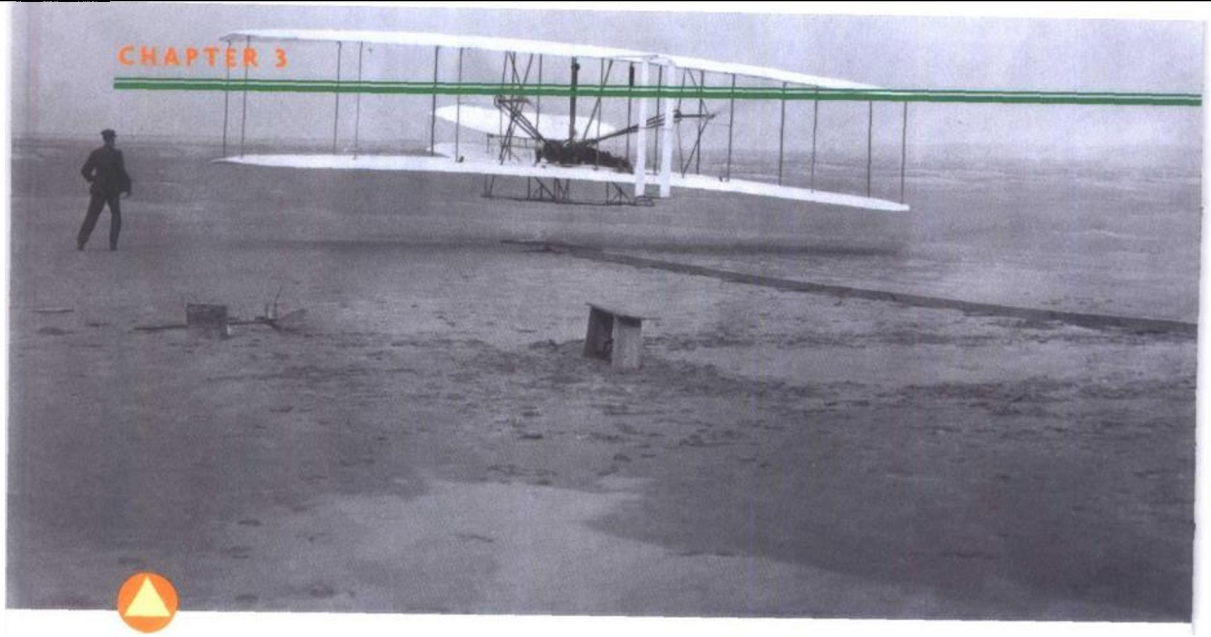
Gottlieb Daimler is shown in his "horseless carriage" in 1885. His son, Wilhelm Daimler, is in the driver's seat. The car was a converted horse-drawn wagon with a gasoline motor.

Question:

What form of transportation that seems fast today may seem slow to your grandchildren?

The invention of the **internal combustion engine** brought transportation into a new era. Inside the engine, a fuel burns, or combusts, to produce power. This type of engine led to the production of many vehicles, including the first car by Gottlieb Daimler and Karl Benz in 1885.

internal [ɪn'tɜ:nl, ɪn'tɜnl] a. 内部的
combustion [kəm'bʌstʃən] n. 燃烧
fuel ['fju:əl, 'fjuəl] n. 燃料
Gottlieb Daimler ['daɪmlə, 'daɪmlɚ]
戴姆勒，发明家，设计制造首辆梅塞德斯牌汽车
Karl Benz [bents,bɛnts] 本茨，发明家，设计制造第一辆内燃机汽车



In 1903, the *Flyer*, the first successful airplane, was ready for flight.

The invention of the internal combustion engine also helped people develop airplanes. People looked to nature for help, too. Watching how birds lifted and lowered their wings to control flight, two brothers, Wilbur and Orville Wright, got an idea. They imitated the design to make an airplane wing that could bend and twist the same way.

It's a FACT!

Animals flew in an aircraft before humans did! In 1783, a duck, a sheep, and a rooster were launched 6,000 feet in a paper hot-air balloon and landed safely.

lift [lɪft] v.举起
lower [ləʊə, loɚ] v.降低
control [kən'trəʊl, kən'trol]v.控制、掌握
imitate ['ɪmɪteɪt, 'ɪmə,tet] v.模仿，仿制
bend [bend, bɛnd] v.折弯、弯曲
twist [twɪst] v.扭、扭转
launch [lɔ:ntʃ, lɔntʃ] v.下水、进入；发射（上天）
Orville Wright [raɪt] 怀特，飞机发明者