

# 英语科普文选第三集 广播辅助材料

王斯力 编著

科学普及出版社

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## 内 容 提 要

本书为英语科普文选第三集的广播辅助材料，内容包括例句、问题、解答和复习，以及老师讲解的重点。

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责任编辑 袁同辰 肖 鸿

科学普及出版社出版（北京白石桥紫竹院公园内）  
新华书店北京发行所发行 各地新华书店经售  
北京印刷一厂印刷

开本：787×1092毫米 1/32 印张：4 字数：88千字

1982年8月第1版 1982年8月第1次印刷

印数：1—32,000册 定价：0.40元

统一书号：13051·1322 本社书号：0501

## Contents

## 目 录

1. The Development of Rubber 橡胶的发展.....	1
2. Weight on and off the Earth 在地球上的重量 和在地球外的重量.....	10
3. Albert Schweitzer 阿伯特·史怀彻.....	15
4. Problems of Space Travel 太空航行中的问题.....	22
5. The First Aeroplanes 最初的飞机.....	29
6. The Gases in the Air 空气中的气体.....	34
7. Moonlight 月光.....	39
8. Madame Curie and Radium 居里夫人和镭.....	43
9. Jenner Studies Smallpox 詹纳研究天花.....	46
10. Fires Long Ago 很久以前的火.....	49
11. Thomas Edison's Inventions 托马斯·爱迪生 的发明.....	53
12. Oil in the Earth 地下的石油.....	58
13. Bees and Colour 蜜蜂和颜色.....	61
14. The Speed of Sound 声音的速度.....	66
15. Dalton's Eyesight 道尔顿的视力.....	71
16. The Beginning of the Air Mail 空邮的开端.....	75
17. Atoms and Elements 原子和元素.....	80
18. Controlling the Tennessee River 制伏田纳西河.....	84
19. Galileo Tries a New Instrument 伽里略试验 新仪器.....	89

20. The Work of Louis Pasteur 路易·巴斯德的工作.....	94
21. Falling Bodies and Their Weight 自由落体及其重量.....	99
22. Dinosaurs—Their Discovery and Their World 恐龙的发现及其世界.....	105
23. Taking off in a Boeing 707 乘波音707起飞.....	110
24. Anaesthetics 麻醉剂.....	116
25. The World Population 世界人口.....	120

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第三集  
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1. The Development of Rubber

橡胶的发展

Proper Nouns

Goodyear [ˈɡudjə:] 固特异

Nicholas Hayward [ˈnikələs ˈheiwəd] 尼古拉斯·海德华

Notes

1. ...it was common knowledge to the Peruvians that when a cut was made in the outside skin of a rubber tree, a white liquid like milk came out, and that from this a sticky mass of rubber might be made.

a) 在这句中有两个由从属连词 that 引导的从句, 均为

名词从句，在句中作先行词的同位语，也就是说，“that when a cut was made...,” 和 “that from this...” 都是 “common knowledge” 的同位语。此句中的第一个从句又由一个主句和一个从句组成。这种用作先行词的同位语的名词从句多用从属连词 that 引导，而 that 一词一般不可以省略。

如，The Peruvians made the discovery that it was very good for keeping out the wet.

秘鲁人发现它防水效果很好。

Nicholas Hayward had the idea in his sleep that rubber might be made hard and strong if mixed with sulphur and put in the sun.

尼古拉斯·海华德在梦中想出一个主意，就是在橡胶里掺入硫磺，日晒后可使橡胶又硬又结实。

这种从句除了可以用 that 引导以外，还有由 how 引导的情况。如：

I have no idea how he got to know that top secret information. 我不知道他是如何得知这个绝密情报的。(how 引导的从句是 idea 的同位语)

The news that our man's volleyball team had beaten the South Korean team at the World Cup Asian Zone Qualifying Volleyball Tournament quickly spread throughout the country. 我国男子排球队在世界杯排球赛亚洲地区预选赛中击败南朝鲜队的消息迅速传遍了

全国。(that 引导的从句是 news 的同位语)

b) a sticky mass of rubber

sticky 是形容词，意为“粘的”。

mass 一词在此不表示“群众”，而表示“一团”。另外 mass 还可以表示“堆”、“块”等，例如：

a mass of iron 一块铁

a mass of sand 一堆沙

2. This rubber is soft and wax-like when warm.

a) wax-like 是个合成形容词，由 wax 和 like 两部分组成，意为“象蜡一样的”。-like 可以作后缀，附在名词后面构成形容词，表示“象…的”，例如：The puna is a cat-like animal which is found in South America. 美洲狮是南美洲的一种象猫一样的动物。

又如：a businesslike man 有条理的人

snakelike movements 蛇一般的动作

childlike 孩子般的，天真的(不同于 childish——幼稚的)

b) ...when warm 是省略句，等于...when it is warm.

3. the eighteen-hundreds 也可以写作 the 1800's, 意为“十九世纪”。又如：

十九世纪二十年代 the 1820's

二十世纪八十年代 the 1980's

4. From that day to this we have been coating cloth with rubber as Mr. Mackintosh did,...

a) from that day to this 意为 since then 从那时到现在。



b) to coat cloth with rubber 即意为 to cover it with a coat of rubber. 涂上一层橡胶

a coat of rubber/paint/dust

一层橡胶/漆/灰尘。

When he returned several years later, he found the furniture coated with thick dust. 几年后他回来时发现家具上布满了厚厚的尘土。

5. In fact, they might also have been made of wax, only they were a bit stronger.

a) ..., they might also have been made of wax,...

这是同过去事实相反的虚拟语气句子。我们知道“they were not made of wax.”

b) ..., only they were a bit stronger. 这句中的 only 是个连接词, 意为“只是”、“不过”。

例如: Tom is a clever boy, only he is rather lazy.

汤姆是个聪明孩子, 只是有些懒。

That book is certainly very useful, only it is too expensive. 那本书确实很有用, 只是太贵了。

You may read the books on the shelf, only remember to put them back. 你可以看书架上的书, 不过要记住把书放回原处。

6. But every attempt to make rubber hard and strong came to nothing.

to come to nothing 意为 do not succeed; fail; be without result 不成功; 没有结果

例如: Their efforts to store the sun's heat came to

nothing. 他们要贮藏太阳热的努力一无所获。

Although he is very gifted, he will come to nothing if he doesn't work hard. 虽然他天赋很好, 但如果他不勤奋, 也将一事无成。

If our experiment comes to nothing, we'll try again. 如果我们的实验不成功, 我们就再试一次。

7. Once started on this work, he was the sort of man who simply had to go on till he had overcome the trouble.

a) 在这句中, once 是个连词, 意为“一旦”, 连接一个省略句。当 once 连接省略句时, 省略句中的主语应和主句中的主语相同或者是 it 作主语, 被省去的部分是 once 引导的从句中的主语及其相应的 be.

例如, Once begun, you must continue. (=Once you have begun,)

一旦开始, 你就必须坚持下去。

Once in motion, an object will persist in that motion because of its inertia.

物体一经运动, 由于惯性就将继续保持其运动。

(=Once an object is in motion, ...)

Once combined, nitrogen is no longer chemically inert. 氮气一经化合, 在化学上就不再是惰性气体了。 (=Once nitrogen is combined...)

- b) to overcome the trouble 意即 to solve the difficulty.

to overcome difficulties 克服困难  
to overcome the enemy 战胜敌人  
to overcome a bad habit 改掉恶习  
to overcome temptation 不受诱惑

8. But when things were starting to go well with him, there came a time when business was bad. 在这句中, things 表示“情况”、“形势”, 在这一意义上只用 thing 一词的复数形式。

例如: How are things with you? 你近来情况怎样?

How are things at the factory? 工厂的情况如何?

9. Goodyear put his idea to the test, and saw it had more or less the desired effect——though somewhat less than more.

a) to put sg. to the test 试验; 检验

to put a new model of TV to the test 检验一个新型电视机

to put one's words to the test 检验…的口实

b) more or less 或多或少; 大约

He is more or less fifty years old.

他有五十岁左右。

I had more or less the same idea as you.

我和你想的差不多。

10. The only effect it had was on the outside of the rubber.

a) to have some effect on sg. 对……有影响; 有作用

例如: His mother's death had a great effect on

him.

他母亲的去世对他影响很大。

- b) The only effect it had...=that it had

当关系代词是定语从句中的动词宾语时，它们可以被省略；如关系代词在定语从句中是主语，则不可以省略。但是这种情况只适用于限定性定语从句，不适用于非限定性定语从句。如课文中“The rubber we have today is not sticky...”一句等于“The rubber that we have today...”

又如：The machine we are designing now is a new-type machine. 我们正在设计的机器是一台新型机器。

11. ...but chance had one more dirty trick in store for him.

to have sg in store for sb.

为……准备着；必将发生

例如：We hope that better luck may be in store for us.

我们希望会遇到佳运。

I have some good news in store for you.

我有好消息要告诉你。

12. Almost everything we make use of in our complex existence has the same sort of story at the back of it.

a) to make use of sg. 利用

例如：The Americans made use of rubber for the first time in the nineteenth century. 美国

人在 19 世纪首先使用了橡胶。

We must make good use of our time.

我们必须好好利用时间。

### Language Exercises

#### 1. 选词填空:

liquids, sticky, mackintosh, sulphur, test, exhibition

a) Glue is very \_\_\_\_\_ when it is warm and it is used for sticking furniture together.

b) Rubber is vulcanised by being heated with \_\_\_\_\_.

c) Peter put on his \_\_\_\_\_ and went out in the rain.

d) There is going to be a big \_\_\_\_\_ of postage stamps in town.

e) Most \_\_\_\_\_ can be changed into gases by being heated.

f) Please \_\_\_\_\_ the insulation of the wire so that we may be sure it is safe to use.

#### 2. 用适当介词填空:

a) A cut was made \_\_\_\_\_ the cloth.

b) A mackintosh is good \_\_\_\_\_ keeping out the rain.

c) Let us keep this copper wire; I can make use \_\_\_\_\_ it.

d) The material was covered \_\_\_\_\_ rubber.

e) Raincoats are named \_\_\_\_\_ Mr. Mackintosh.

f) When he had started \_\_\_\_\_ this work, things began to go well \_\_\_\_\_ him.

g) The rubber was mixed \_\_\_\_\_ sulphur and the idea

was put \_\_\_\_\_ the test.

h) Goodyear put his vulcanised rubber \_\_\_\_\_ view  
\_\_\_\_\_ Paris.

3. 写出下列词的名词:

a) know b) discover c) exhibit d) exist

写出下列词的形容词:

a) stick b) nature c) value d) liquid

4. 重做下列各句, 在适当时省去关系代词, 然后将各句译成汉语:

a) The rubber that they got from the trees was a white liquid.

b) The overshoes that they made were not very successful.

c) The idea that Hayward got in his sleep was only partly successful.

d) The rubber that goes into our tyres is vulcanised.

e) The money that Goodyear took to Paris was not enough.

5. 将下列各句译成英语:

a) 你可以去, 不过要早些回来。

b) 这个故事是在何时何地发生的?

c) 这篇文章写得还不错, 只是结尾差一些。

## 2. Weight On and Off the Earth

### 在地球上的重量和在地球外的重量

#### Notes

1. We are so used to our life on the surface of the earth that it can be quite an effort for our minds to break free of all the ideas that we take for granted.

a) to be used to sg. / doing sg. 习惯于……

例如: They are so used to the labour-saving devices they have that they cannot imagine life without them. 他们非常习惯于他们所有的省力机器, 根本不可想象没有这些机器的生活。

He is not used to getting up early.

他不习惯于早起。

- b) it can be quite an effort for our minds to...  
It'll be an effort for sb. to do sg. — it'll not be easy for... 例如:

It was really an effort for him to give up smoking. 他戒了烟真不是件容易事。

- c) take...for granted 意为 accept as true without thinking about it 视为当然

在课文中 ...all the ideas that we take for granted.

这里的关系代词 that 在定语从句中是 take 的宾语，也就是说 ... we take these ideas for granted.

又如：He seems to take my help for granted.

他似乎认为我的帮助是理所当然的。

He didn't take his success for granted, he owed it to the help of his colleagues. 他没有把自己的成功视为当然，而是把它归功于同事们的协助。

另外，用 take for granted 这一短语的句子还可以这样组成，即 to take it for granted that ... 这时 that 引导的从句是实际宾语，而 it 只是个先行词，作 that 这一从句的同位语，例如：

They took it for granted that I would help them.

他们觉得我理所当然会帮助他们。

We take it for granted that the sun will rise tomorrow.

我们毫不怀疑明天太阳还会升起。

Peter took it for granted that his father would pay for his trip. 彼得认为他父亲当然要支付他的旅行费用。

3. ..., we think of "weight" as being a fixed quality in an object,...

to think of sg. as... 把.....视为.....

例如：Dr. Dethune thought of himself as an ordinary soldier. 白求恩大夫把自己当作一个普通的士兵。



We think of him as a friend as well as a teacher. 我们不仅仅视他为师，并且视其为友。

The local people thought of Schweitzer as a powerful magician. 当地的人们把史怀彻看作一位神通广大的魔术师。

4. ..., it was 8,000 (miles) from the centre, which is twice the distance.

“twice” 一词可以表示 “两次”，如：

I've read that book twice. 那本书我看过两遍。  
它也可以表示 “两倍”，如课文中这一句。在英语中表示 “两倍” 时不用 “two times”，一般只用 “twice”。

例如：两倍之多 twice as much as  
twice as many as

This year that factory has produced twice as many lathes as they did last year. 那家工厂今年生产的车床是去年的两倍。

Our population is more or less twice as large as in 1956. 现在我国人口大约是 1956 年时的两倍。

又如： 两倍之额 twice the amount  
两倍之遥 twice the distance  
两倍的力量 twice the strength

5. If you double the distance between two objects, their gravitational attraction decreases “two times two”.

a) 此句中的 double 作动词用，意为 “使……加倍”。

例如：