

FOLLOW ME TO SCIENCE

The Viewer's Book

跟我学

——科技英语

视听教材



●中央电视台教育节目用书● 中国国际广播出版社●

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中央电视台社会教育部 合编
英国广播公司英语教学部

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前 言

《Follow Me (跟我学)》在中央电视台播出以来,开创了全国范围的“英语热”,受到广大英语爱好者的热烈欢迎。他们中间有不少是科技人员和学习科技专业的学生,学习英语有明确的目的,即以英语为媒介,学习国外先进的科学技术,为我国社会主义现代化建设贡献力量。为了帮助我国科技人员和其他英语爱好者在初步掌握基础英语后,进一步学习、掌握科技英语,中央电视台与英国广播公司合作,编制了这套《Follow Me to Science (跟我学——科技英语)》电视英语教学节目。

一、《跟我学——科技英语》的学习对象是谁?

《跟我学——科技英语》的主要对象是已经学完《跟我学》或具有基础英语程度的科技人员。它也是一套通用的中级英语教材,可供一般成人业余自学中级英语。它的重点是培养学习者在科技领域里用英语进行交际的能力。

二、《跟我学——科技英语》全套教程包括些什么?

全套教程和《跟我学》一样,着重学习活的语言,培养学习者运用英语进行语言交际的能力。

全套教程由两条线组成。第一条线是纪录片,所拍摄的都是内容生动的现代科技题材,目的是帮助学习者掌握在各种科技场合中常用的一般用语。这是本套教程的主线。第二条线是喜剧系列片《马洛一家》,内容幽默诙谐,目的是让学习者通过收看《马洛一家》学习现代英语口语,了解现代英语口语与科技英语的异同。

《跟我学——科技英语》根据上述两条线安排教学。全套教程由教材、电视节目和录音带组成。

主教材:

《视听教材》(The Viewer's Book) 共分20课, 收入20部科技纪录片的文字解说。每一课的文字解说都自成一篇文章完整的、连贯的阅读材料, 附有大量的理解性练习, 还有相关的科技常用词汇、表达法及语言功能练习。

主教材还包含系列喜剧教学片的部分台词。

副教材:

《马洛一家》(The Marlows) 收入了系列喜剧教学片的全部台词。全书共分20课。

电视节目:

每集纪录片编成两个电视节目, 着重讲解若干语言难点和重点, 并归纳介绍一些科技英语中常用的表达法。

《马洛一家》每一集都是一个完整的、独立成章的故事。一集构成一个电视节目。

录音带:

1. 与主教材相配合的课文录音及听力练习。

2. 《马洛一家》系列片的全部录音。

书中所用符号  系指盒带, 数码指盒带内容编号。

主教材和副教材都有较详尽的注释, 注释的重点是: 有助于课文理解的背景材料, 不易理解的语言难点和能反映科技英语特点的表达法及专门术语。一些属于基础语言的短语和语法, 一般不作注释。

三、《跟我学——科技英语》有什么特点?

1. 形象化教学

《跟我学——科技英语》是一套新颖的电视教程。它充分利用电视教学的特点, 使学习者通过活动的画面和有声的形象学习语言的用法及语言交际的方式。电视节目把学习者带到了实际的语言环境, 身临其境地学习语言。

2. 科技英语的使用和学习

(1) 选材

每部纪录片围绕一个现代科技题材展开情节, 如第一课的 *Building for the Future* (未来的建筑) 所描述的是 1985 年才建成的香港汇丰银行和英国新式暖房。现代题材还包括城市交通, 集装箱码头, 新式电话通讯系统, 用模拟设备训练飞行员等。

此外, 中国题材也占了一定的比例, 如中国遥感技术应用, 环境保护等。

(2) 语言功能

语言功能的选择也围绕科技英语常用的功能, 如描写事物的用途、性质、形状、尺寸等及其比较, 描写事件发生的顺序及时空关系等。

(3) 练习

许多练习反映了科技英语的特点, 如数字的读法, 事物的描述(尺寸、形状、材料、性质、用途等)。

四. 怎样学好《跟我学一科技英语》?

要学好一门外语, 每个学习者要结合自己的具体情况寻找最佳的方法。下面提出的一些学习方法仅供读者参考。

1. 坚持收看每次播放的电视节目。语言是有声的, 语言在一定的情境中使用。电视片在实地拍摄, 对深入理解语言的使用有极大的帮助。

2. 视听先于阅读还是阅读先于视听?

通过《跟我学》在听力上已有较大提高的学习者, 应坚持先收看纪录片和喜剧片。视听先于阅读的学习方法是有助于提高直接理解力的。只要坚持训练, 就会有长足的进步。经过视听训练以后, 再仔细地学习主教材《视听教材》和副教材《马洛一家》。总之, 先进行视听, 再进行阅读, 有助于全面掌握语言。

对于听力水平不很高的学习者, 开始时可以大略地看一下教

材,熟悉内容和词汇,这有助于看懂纪录片和喜剧片。然而,依赖教材的做法应该逐步减少,渐渐过渡到“视听先于阅读”的学习方法。

收看电视节目,其目的主要不是为了提供更多的词汇和句型,而是培养语感和训练直接理解的能力。由于各人基础不一,听懂的程度也不尽相同。即使开始时只听懂只言片语,也不要气馁。只要坚持下去,听懂的程度会逐渐提高。不要求听懂每一个词,每一个句子。即使基础好的人,也未必能句句听清。初听时尤其不要拘泥于一词一句,要先抓住其大意,然后逐步加深理解。

3. 坚持做练习

主教材《视听教材》练习丰富,主要包括词汇、句型,课文理解、语言功能和听力。只有勤做练习,才能练好基本功。虽然主教材《视听教材》和副教材《马洛一家》都有较详尽的注释,为理解课文和对话提供了必要的帮助,但是,要把知识变为运用语言的能力,勤做练习是一个十分重要的途径。要认真做练习,做后看答案,自己批改。

《跟我学一科技英语》教材的注释初稿由上海交通大学科技外语系主任杨惠中教授、张彦斌教授、吴信强教授负责,北京师范大学外语系《跟我学一科技英语》讲解剧本编辑组王维镛,廖康,刘文成等同志加工、补充并经王维镛教授审订,定稿。中国国际广播电台严爱榛副译审、张葭萍副译审、北京师范大学黄帼俊同志、清华大学袁晶同志参加了本教材的编辑整理工作。全书最后由中国国际广播出版社外文编译室主任徐梅江审订。我们在此感谢他们对此作出的贡献。我们希望这本教材能更好地满足我国科技人员和其他英语爱好者学习英语的需要。整个教程的编制可能存在不足,我们热忱地欢迎读者提出批评和指正。

中央电视台社会教育部

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UNIT 1 Building for the Future

第一课 未来的建筑

1. The Royal Botanic Gardens at Kew,¹ near London, is an international centre for botanical research, with an enormous collection of plants from every type of climate.² Tropical plants are kept in greenhouses, because they need heat and humidity. But some of the greenhouses at Kew are rather old and rusty. So all the tropical plants are moving to a new greenhouse—one which is designed to last a hundred years.³
2. The new greenhouse has a mild steel structure, with glass beneath it. The steel is sprayed with aluminium to prevent rust. The glass in the roof is 6mm thick;⁴ this is safer and lasts longer. The glass roof is set below the steel structure and has the function of hiding it—only about a third of the structure is visible.
3. It's very expensive to keep all the plants at the correct temperature and humidity.⁵ Water jets⁶ will provide different levels of humidity in different parts of the house and will save energy, too. To give the plants the perfect environment, every detail must be right.
4. Architect Gordon Wilson describes the new greenhouse: "There are nearly 4,500 square metres of space, with ten separate climatic zones; these range from the arid zone, which is cool, at the south end of the greenhouse through the general tropical and subtropical zone in the centre to the temperate zone,⁷ or the winter garden, at the north end. In-

ternally the structure is very much played down and the plants are beginning to dominate."⁸

5. The greenhouse contains running water; around the path there's a stream, with water running down rock, and bits of fallen rock at the bottom. According to gardener Hugh Fitzgibbon, having small rocks at the back of the waterfall and very large ones right at the front increases the sense of distance.⁹
6. Energy conservation is of vital importance in any building and particularly in a glasshouse, says Gordon Wilson.¹⁰ "We've reduced the height of the roof. We've reduced the volume. We have all the spaces under one roof, not in separate buildings, as before.¹¹ It's very much as I had hoped it would be, and I think the end result is satisfactory."
7. On the opposite side of the world, Hong Kong is full of tall, new buildings. But the architecture of the new Hong Kong and Shanghai Bank¹² is dramatically different, using the latest materials and technology.
8. From the street, customers and staff enter, not through a door, but up an escalator. A curved screen made of steel and glass separates the hot plaza level from the cool, air-conditioned banking hall inside. Architect Ray Guy explains: "At plaza level you're at 33 degrees centigrade; you're moving through an improving environment right the way through to 23 degrees;¹³ the banking hall is kept at 23 degrees centigrade." Ray Guy has been the bank's project manager for the past five and a half years, working on first the design stage of the building and now the construction stage.
9. In the banking hall, every desk has its services provided through the floor¹⁴ — the computer links, the telephone system, the power services and the air conditioning. They are all brought through the raised floor system.¹⁵

10. Staff¹⁶ have been moving in¹⁷ since 30th July and the general reaction has been good: "I think they enjoy the open space within the building, the newness and the uniqueness of the building. Our brief was to construct the best bank building in the world." The Hong Kong and Shanghai Bank is controversial: not everyone likes it, but it certainly stands out.¹⁸

Notes 注释

1. The Royal Botanic Gardens 皇家植物园, 又称 Kew [kju:] Gardens 丘园, 因该园就在英国伦敦西南的丘地 (Kew).
2. "with + 名词 + 介词短语 / 分词短语等" 表示背景情况或行为方式。本篇中这种 with 共出现 3 处:
 with an enormous collection of plants from every type of climate 移植了许许多多各种气候条件下生长的植物
 with glass beneath it 钢结构下面是玻璃
 with water running down rock 水沿着石块往下淌
3. "So all the tropical plants are moving to a new greenhouse — one which is designed to last a hundred years."
 1) one 在此指代 greenhouse
 2) last 是动词, 意思是: 维持, 持续
4. 表示某个物体的高度、宽度、长度可用 "数字 + 单位 + high/wide/thick/long" 这一结构。
 例: This steel plate is 2 cm thick.
 This building is 120 metres high.
5. 在 at the correct temperature and humidity 中, temperature 和 humidity 之前用介词 at. 此外, 在 speed, rate, distance, price 等名词前也应该用 at, 如 at a speed of... (以...的速度)。
6. water jets 喷嘴, 喷口
7. these range from the arid zone... through the general tropical and subtropical zone... to the temperate zone.
 这些气候区的范围有干旱地带... 热带、亚热带和温带。
 注意 range from... through... to... 的用法。range 后面的介词一般是 from ... to
 例: My hobbies range from travelling to collecting stamps

我的爱好广泛，从旅游到集邮，都喜爱。

8. Internally the structure is very much played down and the plants are beginning to dominate. 此句意思是：在内部，钢结构已不占主要地位，突出的是各种植物。
9. ...having small rocks...right at the front 为动名词短语，作主语用，谓语动词是 increases.
10. Says Gordan Wilson 是一个插入句，用来表示对全句内容的态度、评价、来源等，是一种新闻体。这类分句除位于句末外，也可位于句中。
例，Work is done when a force moves an object through a distance, physics says. 照物理学的说法，当力使物体移动一定距离时，就叫做做功。
A major problem with the project, the engineers reported, is how to dispose of wastes. 据工程师们报告，这项工程的一个主要问题是如何清除废物。
11. as before 是修饰 not in separate buildings 的，全句可译为：所有的空间都在一个房顶之下，而不像以往那样，分散在各个独立的建筑物中。
12. the Hong Kong and Shanghai Bank 汇丰银行，正式名称是 The Hong Kong and Shanghai Banking Corporation.
13. you're moving through an improving environment right the way through to 23 degrees. 句中的 environment 实指“气温”，全句的意思是：越往前走，气温逐渐降低，更加宜人，一直降到23度。
14. every desk has its services provided through the floor 每一张工作台都通过地板提供各种服务设施。
15. the raised floor 隆起式地板；活（动）地板
16. staff（全体）工作人员。staff 单数形式，复数含义，因此句中谓语用复数形式。
17. move in 进入（银行大厦办公）
18. stand out 引人注目，与众不同
例：He was tall and stood out in the crowd. 他个子高，在人群中显得十分引人注目。

Exercises 练习

1 WORDS 单词

1:1 Match these single words from the passage with the definitions, as in the example:

找出和下列课文中单词含义相符的定义。如例所示，划线连接：

uniqueness	power, e.g. electricity, used for heat, etc.
enormous	the amount of room inside a building, etc.
sprayed	becoming better
rather	be the most important or most visible
research	very big
curved	scientific investigation carried out at universities, etc.
energy	slightly, a little
volume	quality of being different
improving	covered in small drops of liquified matter
dominate	not flat or straight, bending

1:2 Match these single words from the passage with the definitions:

找出和下列课文中单词含义相符的定义。

botanical	the water contained in the air
arid	a set of moving stairs
escalator	of or related to plants
controversial	very dry and unproductive
humidity	causing much argument

1:3 Now match the following two- and three-word phrases with the definitions in the same way:

用相同方法找出和下列词组含义相符的定义。

range from . . . to	as was said by (someone)
tropical plants	feeling that something is a long way away

design stage	looks different from every- thing near it
water jets	costing a lot of money
stands out	devices which produce water in small drops
power services	including everything 'be- tween these two extremes
dramatically different	flowers, trees, etc. which grow in hot, humid parts of the world
played down	electricity (and, sometimes, gas)
construction stage	made less important
sense of distance	period of building
very expensive	period of planning
according to	not 'the same at all

1:4 Which of the following words apply to BUILDINGS and which to WEATHER or CLIMATE? Some words may apply to both. Write them down in two columns:

下列哪些单词用于建筑方面，哪些用于天气或气候？有些词两方面都适用。把它们写成两行：

BUILDING

WEATHER/CLIMATE

rust(y), north, arid, aluminium, screen, roof, zone, humidity, height, environment, internally, winter, temperature, south, mild, tropical, steel, levels, subtropical

1:5 Which of the following words apply to a GREENHOUSE and which to a BANK BUILDING? Some words may apply to both:

下列哪些单词是和暖房有关的，哪些是和银行建筑有关的？有些两者都适用：

GREENHOUSE

BANK BUILDING

plants, plaza, stream, customers, desk, collection, visitors, rock, conservation, air conditioning, staff, hall, telephone, computer

2 MEANING 含义

Pick the best word or phrase to complete these sentences, as in the example:

选择最恰当的词或词组来完成下列句子，如例所示：

- A The Royal Botanic Gardens has an enormous collection of
a) tropical plants
b) plants from all over the world
c) plants which need heat and humidity
- B One new greenhouse is replacing old green house(s).
a) one
b) two
c) more than two
- C Most of the structure is from the inside of the greenhouse.
a) visible
b) aluminium
c) invisible
- D Water jets energy
a) use a little
b) use a lot of
c) don't use
- E The warmest zone is of the greenhouse.
a) in the middle
b) at the north end
c) at the south end
- F A low roof and reduced volume conserves
a) glass
b) energy
c) plants
- G The Hong Kong and Shanghai Bank is different because it
a) is tall