科普英语事典

李洪涛　编著

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前言

科普英语完全搞定

《科普英语事典》是以英语学习程度初、中级者为主要对象，收集有关普及科学中基本、常见且重要的单字和短句编辑而成的。

本书有以下一些主要特色：

根据普及科学的特点，本书分为接触宇宙、了解地球、关怀生命、认识环境四个部分，每一部分又分为几个小节。

每一小节都包括鲜活词汇、经典佳句、流行对话等。

鲜活词汇　列举各种实用重点名词，对于相关动词的活用，以及形容词和副词的变化等，均有详细的标示与说明。

经典佳句　选择了丰富的例句。为实用起见，本书尽量以校园生活用语为主，并且选择浅显易懂的例句，以方便读者记忆。

流行对话　选择了普及科学中的流行对话，且对话中包括了鲜活词汇的全部单字，使单字融入生活环境中，更能加深读者谨识对词汇的印象。

但愿本书能帮助广大读者逐步提高自己的英语水平。本书不当之处，欢迎读者批评指正。

编者　谨识

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接触宇宙

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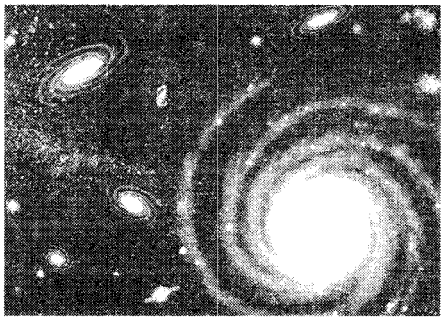
- 关于月球

HAPPY LEARNING

〔探索宇宙〕



Scattered around the galaxy are billions of other galaxies.

银河系的周围，分布着数以亿计的其他星系。

鲜活词汇

01 planet [plænit] *n.* 行星

02 axis [æksis] *n.* 轴

03 Mercury [mə:kjuri] *n.* 水星

04 Venus [vinəs] *n.* 金星

05 live on 在……生活

06 signal [signl] *n.* 信号

07 Mars [mɑ:z] *n.* 火星

08 orbit [ɔ:bit] *n.* 轨道

09 Jupiter [dʒupitə] *n.* 木星

接触宇宙

10 appear [əˈpiə] *v*. 出现，显现 *n*. appearance

11 Saturn [ˈsætən] *n*. 土星

12 ring [riŋ] *n*. 环，环形物

13 Uranus [ˈjurənəs] *n*. 天王星

14 Neptune [ˈneptjun] *n*. 海王星

15 Pluto [ˈpluːtəu] *n*. 冥王星

16 rock [rɔk] *n*. 岩（石）

17 trillion [ˈtriljən] *n*. 兆

18 machine [məˈʃiːn] *n*. 机器，装置，设备

19 answer [ˈænsə] *n*. 回答，答案

20 Universe[ˈjunə, vəːs] *n*. 宇宙，世界

21 revolve [riˈvɔlv] *v*. 旋转 *n*. revolver *adj*. revolving

22 huge [hjudʒ] *adj*. 巨大的

23 scatter [ˈskætə] *v*. ①散布 ②分散

24 energy [ˈenədʒi] *n*. 能量，精力

25 characteristic *n*. 特征，特点

[ˌkæriktəˈristik] *adv*. characteristically

26 wave [weiv] *n*. （电，光，声）波，（波）浪

27 capable [ˈkeipəbl] *adj*. 有能力的，能干的，有才能的

28 instrument[ˈinstrəmənt] *n*. 仪器，装备 *adj*. instrumental

经典佳句

01 The moon and some planets in the solar system are sources of radio waves.
月球和太阳系的某些行星都是无线电波发射源。

02 The Earth turns on its own axis.
地球绕着自转轴自转。

03 Mercury is one of the nine planets.
水星是九大行星之一。

04 Nobody can live on the moon because there is no air and no water.
没有人能够在月球上生存，因为上面没有空气和水。

05 Mercury's orbit lies so close to the sun that the planet is never seen more than 28° away from the sun's disk.
水星的轨道如此地靠近太阳，使得人们只能在离太阳光轮 28° 以内看到它。

06 Jupiter takes about 12 years to go around the sun.
木星围绕太阳运转一周大约需 12 年。

07 When you look at a picture taken by a telescope of the galaxy, it appears that the center of the galaxy is made up almost completely of stars.
当你看到借由望远镜拍摄到的星系中心的照片时，会感到星系中心几乎完全由恒星所组成。

08 Saturn has some very beautiful rings around it.
土星的周围有几条非常美丽的光环。

09 Geologists think that some rocks and some layers of rocks are older than other kinds and other layers of rocks.
地质学家认为某些种岩石和某些岩层比其他的岩石和岩层更为

古老。

10 These signals go through space almost six trillion miles in a year.
这些信号一年将近运行 6 兆英里。

11 The old machine doesn't work, it needs to be repaired.
这台旧机器不动了,需要检修一下。

12 Can you give an answer to this question?
你能回答这个问题吗?

13 It's very possible that in the future we will find other forms of life in the Universe.
我们非常可能在不久的将来发现宇宙内的其他形式生命。

14 The Earth revolves both round the sun and on its own axrs.
地球既公转又自转。

15 The Milky Way galaxy is a huge system which is made up of gases, dust and stars.
巨大的银河系是由气体、尘埃和恒星构成的。

16 Scattered around the galaxy are billions of other galaxies.
银河系的周围,分布着数以亿计的其他星系。

17 The type of electromagnetic energy may be determined by the range of its wavelength.
电磁能的类型可由波长的范围决定。

18 Because your eyes are sensitive to waves within a certain range of wavelengths, that is way you can see only one kind of electrom-agnetic wave.
由于你的眼睛只能感受一定波长范围内的波,因此你只能看到一种电磁波。

19 The situation is capable of being improved.
情况可以改善。

20 Electromagnetic energy is an instrument used to study the Universe.
电磁能是研究宇宙的工具。

流行对话

A: Do you know the nine planets?
你知道九大行星吗?

B: Yes, I do. Well, all the nine planets go round the sun in the same way. Each of them also turns on its own axis. Earth is also one of the nine planets.
知道。这些行星都围绕太阳运转,每个行星也绕着自转轴自转。地球也是九大行星之一。

A: But it turns once on its axis in 24 hours. You see the sun rising and setting because the Earth is turning.
地球绕着自转轴运转一周需要 24 个小时。日升日落是因为地球自转的缘故。

B: Yes. I see that. Do you know the two planets that are closest to the sun?
我明白了。你知道离太阳最近的两颗行星吗?

A: Of course I do. Mercury and Venus. Mercury is small and it is very close to the sun. Mercury is so hot and small and has no air, there fore nobody can live on it.
当然知道。那就是水星和金星。水星小,离太阳很近。水星的温度高,体积小,又没有空气,所以没有人能在上面生存。

B: Venus is almost the same size as Earth. It goes around the sun once eveng 225 days.

金星的面积几乎与地球一样大，它围绕太阳转一周需要 225 天。

A: And we sometimes call it the evening star. It is very beautiful; but it is not a star.
有时我们称它为暮星。金星非常漂亮，但它不是恒星。

B: The Russians once sent a machine to Venus and so did the Americans. They told us something about the beautiful planet. They sent back signals from space, too.
俄国人曾把一个飞行器送上了金星，美国人也这样做过。它们显示了一些有关这颗美丽的行星的情况，而且还从太空发回了信号。

A: Well, the next planet is Mars.
下一个行星是火星。

B: You're right. The orbit of Mars is outside the orbit of Earth. Mars is about 227 million km from the sun. It completes its journey around the sun in about 1.7 years, and its day is half an hour longer than ours.
你说得对。火星的轨道在地球的轨道外面。火星到太阳的距离大约是 2 亿 2 700 万公里。围绕太阳运行一周大约要 1.7 年的时间。它的一天比我们的一天多半个小时。

A: Well, about 805 million km from the sun there is the planet Jupiter. It is the biggest of all. It takes about 12 years to go around the sun and it has 14 moons.
距太阳大约 8 亿 500 万公里处，有一颗行星叫木星。是所有行星中最大的一颗，围绕太阳运转一周大约需要 12 年，有 14 颗卫星环绕。

B: Oh, Jupiter is a strange planet. It turns on its axis, but different parts of it appear to turn at different speeds.
木星是一颗奇特的行星。它绕着自转轴自转，但是，不同的部分好像又以不同的速度旋转。

A: It's funny, isn't it? Er, the next planet is Saturn. It has some beautiful rings around it. It travels once around the sun in about 30 years, and it

has ten moons.

很有趣，不是吗？呃，下一颗行星是土星。周围有几条美丽的光环。大概 30 年才能绕太阳运行一周。土星有 10 颗卫星。

B: Well, Uranus, the next planet, is 2 869 million km from the sun. It has four moons.

下一颗行星便是天王星了。天王星距太阳 28 亿 6 千 9 百万公里。有 4 颗卫星。

A: However, Uranus did not appear to move properly in its orbit. One astronomer said that there must be another planet. Do you know what this other planet is called?

不过，天王星以前似乎从来不曾在其轨道上正常运行。据一位天文学家说，一定还有另一颗行星。你知道另一颗行星的名称吗？

B: Er, its name is Neptune. It completes its orbit around the sun in 165 years.

海王星。它沿着轨道绕太阳一周要花 165 年。

A: Good. In 1930, another planet was found. It's called Pluto. Its orbit has an unusual shape, and it goes once around the sun in 248 years. But it is so far away and so small that we cannot study it easily.

很好。1930 年，人们又发现了另一颗行星，冥王星。冥王星的轨道形状异乎寻常，需要 248 年的时间绕太阳一周。但是距离遥远，体积也太小，我们很难对其进行研究。

A: On a clear night, we can see many stars in the sky, and they are millions of miles away.

在晴朗的夜晚，我们可以看到天上繁星，距离有几百万英里之远。

B: But what should they look like, do you know? Are they balls of fire? Do they have large rocks or sand, like our moon? Are there living things on any of the stars?

它们该是什么样子呢？是火球吗？和月亮一样有巨岩或沙子吗？某个星星上有生命吗？

A: Well, scientists also want to know what the stars are like, and people have always thought about these questions. Now scientists know more about space than ever before. Now they have some machines that can help them look for the answer.
科学家也想知道这些星星的样子。人们一直在思考这些问题。目前，科学家比从前更了解太空，现在可借助仪器寻找答案。

Q: How do scientists do this?
科学家们怎么做呢？

A: You know, people cannot get go to the stars, they are much too far away.
你知道，目前人类是无法登上星星的，它们距离太遥远了。

Q: So scientists are sending out radio signals?
所以，科学家发射无线电信号？

A: Yes. And these signals go through space at the speed of light, almost six trillion miles in a year.
对的。这些信号以光速在太空传送，一年将近运行 6 兆英里。

Q: Then when will the signals reach the next star?
那要过多久这些信号才能到达邻近的星球？

A: Er, atthat speed, it will take 25 years for radio signals to reach the next star.
呃，按照这个速度，无线电信号到达邻近的星球要花 25 年。

Q: What are the signals about?
是什么样的信号？

A: The signals ask, "Is anyone out there?" You see, living things in space must have machines to hear the signals. We will not get an answer to our signals for more than 50 years, but scientists are already listening. They think someone from space may be trying to send signals to us.

信号问："有人吗？"你知道，太空中的生物必须依靠仪器才能收到这些信号。50 年内我们无法得到回应，不过科学家们一直在监听，他们认为太空中的生物也正在试图向我们发信号呢。

B: As I know, scientists also have sent large telescopes into space.
就我所知，科学家也把大型望远镜送入太空。

A: Yes. A telescope is a machine that makes things look larger. When you look into it, things that are far away appear to be colser.
对。望远镜是把物体放大的仪器，透过望远镜，遥远的物体显得很近。

B: And the telescopes are going around the Earth. They are looking out into space. They are looking for life in other worlds.
这些望远镜正绕地球运行，观测太空，寻找其他星球上的生命。

A: Maybe in the next few years we will get an answer to the question "Is there life in space?"
也许在未来的几年里，我们会找到"太空中是否有生命？"这一问题的答案。

B: I hope so, too.
我也希望如此。

A: What is in the Universe surrounding the solar system, do you know?
太阳系周围的宇宙中有些什么，你知道吗？

B: Yes, the solar system is made up of the sun, its nine planets and other bodies that revolve around the sun. The solar system, however, is only a tiny part of a much larger system.
知道。太阳系由太阳、九大行星以及其他绕日运行的天体组成。但太阳系只不过是另一个更大体系的微小部分。

A: Good. This much larger system is made up of gases, dust, and 100 billion or more starts. We know this huge system as the Milky Way galaxy.
很好。这个更大的体系由气体、尘埃和 1 000 亿颗或更多的恒星所

组成。这个巨大的体系就是银河系。

Q: As I know, surrounding the galaxy for thousands and thousands of light-years is space. At great distances, however, billions of other galaxies are scattered.
据我所知，银河系周围数万光年范围是太空。在遥远的距离以外，分布着数十亿的其他星系。

A: With distances so great, how do scientists observe the stars and other bodies? Do you know?
距离这么遥远，科学家如何观察恒星和其他天体呢？你知道吗？

Q: Of course I do. Stars and other bodies in the Universe may be studied by observing the energy which they give off.
当然知道。借由观测宇宙间恒星和其他天体发射出来的能量，来进行研究啊。

A: Then, what are some characteristics of electromagnetic energy?
那么，电磁能有哪些特性？

Q: All bodies in the Universe give off a form of energy known as electromagnetic energy. Sometimes this form of energy is called radiant energy or radiation. Electromagnetic energy travels through space as waves, somewhat in the same way that ripples travel over the surface of water in a pond or pool. A characteristic of any wave motion is its wavelength.
宇宙间所有天体会发射一种称为电磁能的能量。有时这种形式的能量称为辐射能或辐射。电磁能以波的形式在太空行进，有点像涟漪在池塘或水池表面波动那样。波长是任何波状运动的特征。

A: How is electromagnetic energy used to view the Universe?
怎样利用电磁能观察宇宙？

Q: Er for centuries, men observed the stars and other objects in the Universe with the human eye as the chief instrument. They were observing the light radiation, or waves of visible light that are given off

by bodies in the Universe.
几个世纪以来，人类用肉眼作为主要的工具，观察宇宙间的恒星和其他天体。他们观看宇宙天体发出的光辐射，也就是可见光波。

A: In the early 1600's the telescope was invented. Scientific knowledge in astronomy grew as telescopes were improved.
早在 17 世纪初，望远镜的发明问世。随着望远镜的改良，天文学方面的知识也日益丰富。

Q: So, with telescopes, scientists could observe more light radiation than the human eye alone was capable of receiving.
所以有了望远镜，科学家能观察到比单用肉眼所见更多的光辐射。

A: Yes that's right. After 1945, the radio telescope was developed. The radio telescope may be thought of as a gathering of radio waves. Like light radiation, radio waves are electromagnetic waves. Today, both optical telescopes and radio telescopes are among the chief instruments used to observe the Universe.
没错。1945 年之后，人们研发了无线电天文望远镜。无线电天文望远镜可视为无线电波的收集器，和辐射光一样，无线电波也是电磁波。光学望远镜和无线电天文望远镜都是现今用以观测宇宙的主要仪器。