

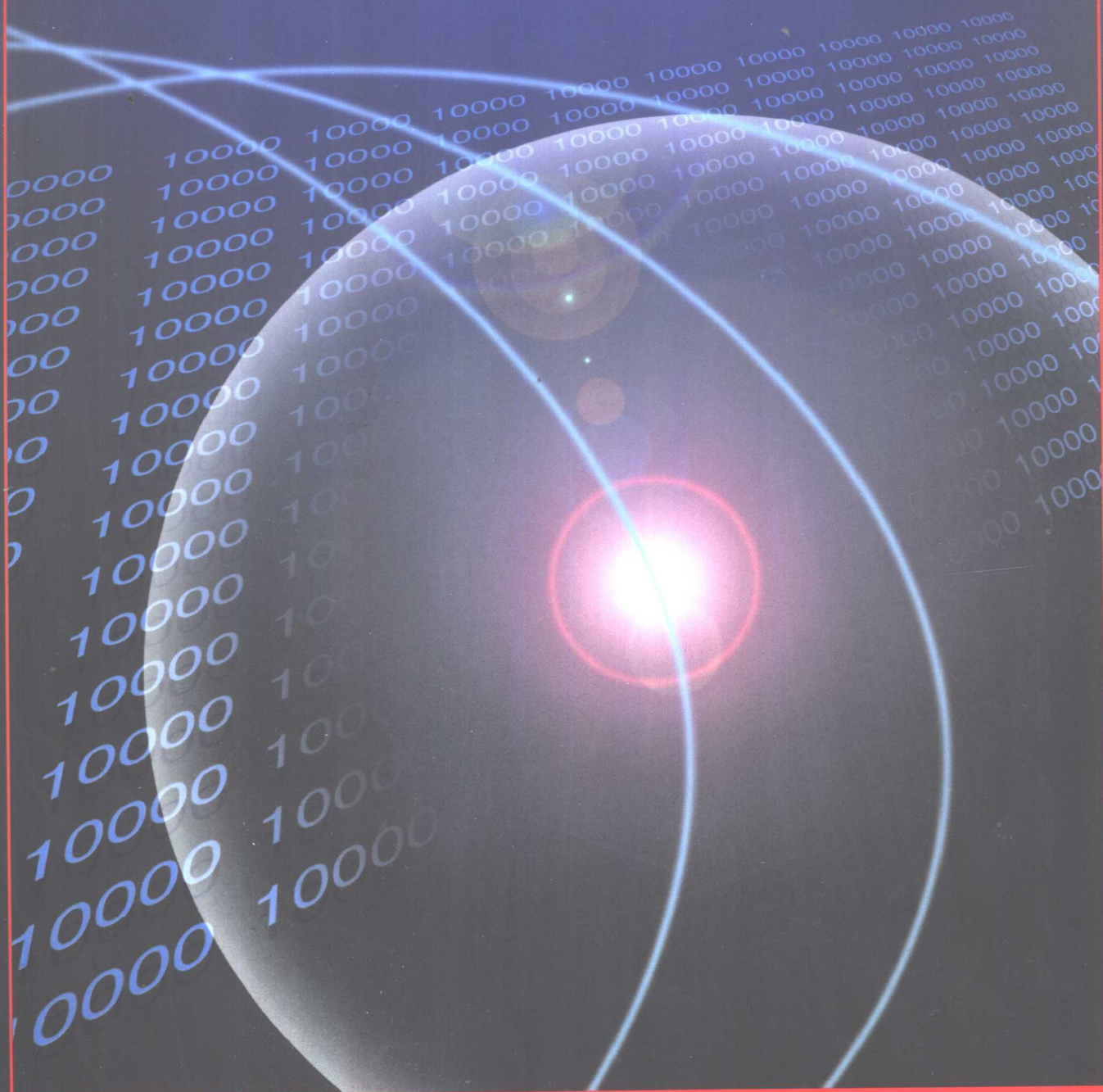
MEMORIZE 10000 ENGLISH WORDS THROUGH THEMATIC READING

英语万词主题阅读

单小明 单国荣 主编



中高级英语阅读宝典
10000 单词的记忆捷径



中山大学出版社

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·广州·

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前 言

要快速便捷地掌握中高级英语，最好以单词联想为中心环节，以主题联想为基本渠道，以水平考试为检测手段，通过有计划高频率的训练，全面提高各项语言技能。

本书是以1万英语词汇为基础的普及型中高级英语阅读文选。它按自然科学和社会文化范畴各主题组织了125余篇阅读材料，每篇都以焦点词为中心组织词群串讲，使常用词、常考词进入情景交融的联想天地，能有效提高对英语单词的理解和记忆能力，并帮助读者找到一条通往有效阅读的捷径。

本书百科全书式的主题背景知识、形义交叉的词群系统串讲、水平考试的全真阅读试题，科学地体现了“词不离句、句不离篇”的语言学习原则。学生在使用本书的过程中，可以通过主题联想和词形词义联想，有效地提高阅读能力，扩大词汇量。

使用本书你就会发现，记1万个单词并不是难事！

本书参编人员有田兰、杨春、陈果、李桂、陈羲、李苗、夏铭等。

本书阅读十法

(一) 顺读法：按编排序列，先读每篇短文的词群串讲，预先化解一些词语难点，并初步联想大量储备词语，然后再读短文，认真思考阅读理解问答，同时对照参考答案，在一气呵成中，逐步提高自己的阅读自测水平。

(二) 跳读法：水平较高者可先越过词群串讲，直接阅读短文，做出阅读理解判断后，再读词群串讲，纠正错误，思考得失。

(三) 吞读法：无论顺读或跳读，都不宜恋战，只读二三遍便可，力争快速通读全书，早日掌握全书的词汇和主题体系，为在再次阅读中加深理解、实现从感性到理性的飞跃创造条件。

(四) 嚼读法：在速读的基础上力求熟读。除逐词逐句加深理解外，还应对词群串讲中的备用词语多方面进行联想。

(五) 译读法：嚼读后逐句将原文译成汉语，润饰成文后，再还原背译为英语。如此多次双向对译，有利于自身读写的流利化。

(六) 析读法：逐句划分句子成分，并归纳相关句型，再用句型统率相关词语，仔细体会词语配搭中的语法和逻辑关系。

(七) 讲读法：在析读的基础上，以每句的谓语动词为线索，系统背讲全书。这样做既避免了死记硬背的苦处，又能有效提高口译和笔译的能力。

(八) 约读法：将全文用最少或较少的原句缩写成读书摘要。

(九) 扩读法：每个主题阅读后，便搜集阅读一些同主题的相关读物，为全面“四会”打好基础。

(十) 参读法：以所读过的短文为参考，大量撰写模拟作文。

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Unit 1 天文，气象

001 In the Universe, Bigger Is Simpler (宇宙中，越大越简单)

词群串讲 (Explanation for Word Groups)

- 1) **universe** ['ju:nivə:s] *n.* (the U~) 宇宙，天地万物，世界 [构词法] uni- (惟一的) + verse (旋转体) [同根词] universal *adj.* 宇宙的，全世界的 /university *n.* (综合) 大学 (注: -al 为形容词后缀，-ity 为名词后缀) /reverse [ri'və:s] *n.* (the ~) 正相反，反面 (注: re-表返回，相反)... the reverse seems to be the case (情况正好相反) [同义词] cosmos ['kɔzmɔ:s] *n.* (井然有序的) 宇宙 /space *n.* 太空 (地球大气层之外的空间) /hierarchy ['haɪərə:ki] *n.* 体系，系统 ~ of the cosmos 宇宙系统 /cosmopolitan [ˌkɔzmə'pɒlɪt(ə)n] *n.* 全世界
- 2) **galaxy** ['gæləksi] *n.* (the G~) 银河 *pl.* 银河系 [构词法] gala- (乳白色) + xy [同根词] galactic [gə'læktɪk] *adj.* 乳汁的，银河的 ~system 银河系 [类义词] star 恒星 /planet 行星 /comet ['kɒmɪt] 彗星 /meteor ['mi:tɪə] 流星 /meteorite ['mi:tɪərɪt] 陨星 /clusters ['klʌstə] 星簇
- 3) **terrestrial** [ti'restriəl] *adj.* 地球的，现世的 [构词法] terr (陆地) + estr (存在) + ial (形容词后缀) [同根词] territory ['terɪtəri] *n.* 领土 /territorial [teri'tɔ:riəl] *adj.* 领土的 [区分] terrible *adj.* 可怕的 [同义词] earthly *adj.* 现世的 /worldly *adj.* 现世的 [用法] terrestrial affairs = earthly affairs = worldly affairs (人间事务)
- 4) **complicated** ['kɒmplɪkeɪtɪd] *adj.* 错综复杂的 [构词法] com- (共同) + plic (弯曲) + ated (形容词后缀) [同根词] complicity [kəm'plɪsɪti] (共同 + 勾结 + ity 名词后缀) *n.* 同谋，共犯 /application [æpli'keɪʃ(ə)n] (ap-强调 + plic 躬身 + ation 名词后缀) *n.* 申请，运用，努力 [同义词] intricate ['ɪntrɪkɪt] *adj.* 复杂的 /complex ['kɒmpleks] *adj.* 复杂的
- 5) **simple** ['sɪmpl] *adj.* 简单的 /simpler 较简单 [同根词] simplicity [sɪm'plɪsɪti] *n.* 简单 /simplify ['sɪmplɪfaɪ] *v.* 简化 /simply *adv.* 简单地 [同义词] uncomplicated *adj.* 简单的
- 6) **lopsided** [ˌlɒp'saɪdɪd] *adj.* 倾斜的 [构词法] lop (下垂的) + side (边) [同义词] uneven (un-不 + even 平) *adj.* 不正的 /unequal (un-不 + equal 相等) 不等的 /distorted *adj.* 歪曲的 /twisted ['twɪstɪd] *adj.* 歪曲的

- 7) **compose** [kəm'pəuz] *v.* 构成, 组成(常用被动式) [构词法] com-(共同) + pose(放) [同根词] composite ['kɒmpəzɪt] *adj.* 合成的, 复合的 /composition [ˌkɒmpə'zɪʃ-(ə)n] *n.* 作文 /decompose [ˌdi:kəm'pəuz] *v.* 分解, 使腐烂 /decomposition *n.* 分解, 腐烂 [同义词] consist *vi.* 由……构成 /constitute ['kɒnstɪtju:t] *v.* 由……组成 (注: sist, stitute 均表示“站立”) /make up 组成 /comprise [kəm'praɪz] *v.* 组成
- 8) **rotate** [rəu'teɪt] *v.* (使) 旋转 [构词法] rot (词根: 转) + ate (动缀) [同根词] rotation [rəu'teɪʃ(ə)n] *n.* 旋转 /rotative ['rəutətɪv] *adj.* 旋转的 /rotational [rəu'teɪʃ(ə)nɪ] 旋转的, 自转的 [同义词] turn 转 /revolve [rɪ'vɒlv] *v.* 周转 /spin [spɪn] *v. & n.* 旋转 /orbit ['ɔ:bɪt] *v.* 绕轨道而行

课文 (Text)

In terrestrial affairs we think of “big” as being complicated: a city is more intricate than a village, an ocean more complicated than a puddle. For the universe, the reverse seems to be the case: bigger is simpler. Galaxies have some puzzling features, but on the whole, they are scarcely more complicated than the stars that compose them. Beyond the galaxies, in the hierarchy of the cosmos, there are clusters of galaxies. These clusters are loosely bound by the gravity of their largest members and tend to look very much the same in all directions. Simplest of all is the universe at large. It is far less complicated than the Earth, one of its most trivial members. The universe consists of billions of galaxies flying apart as if from an explosion that set it in motion: it is not lopsided, nor does it rotate. The more thoroughly scientists investigate the universe, the more clearly its simplicity shines through.

- What is the main point made in the passage?
 - The Earth is more complicated than the solar system.
 - The universe is filled with puzzling materials.
 - The universe is a relatively simple phenomenon.
 - Galaxy clusters are an illusion.
- According to the passage, clusters of galaxies are

A. indiscernible in the cosmos.	B. held together by gravity.
C. made up of only one or two galaxies.	D. created when stars explode.
- According to the passage, which of the following is the most complicated?

A. The earth.	B. A cluster of galaxies.	C. The universe.	D. A galaxy.
---------------	---------------------------	------------------	--------------
- It can be inferred from the passage that future research will support which of the following statements?
 - Scientists in the past have been misled by the apparent simplicity of the universe.
 - The chaos and confusion of the universe will never be understood.
 - Findings will confirm the belief that the universe is simple.
 - Billions of galaxies are predicted to explode adding to universal complexity.

002 Debris in Space (太空中的残骸)

词群串讲 (Explanation for Word Groups)

- 1) **名词群:** debris ['deibri:] 残骸, 废料 *pl.* ['deibri:z] [同义词] wreckage ['reki:dʒ], ruin ['ru:in], rubbish ['rʌbiʃ], trash [træʃ], refuse ['refju:z], detritus [di'traitəs] /speck [spek] 斑点 /object 物体 /radar ['reidə] 雷达 /telescope ['teliskəʊp] *n.* 高倍望远镜 /equipment [i'kwipmənt] 仪器 /space-shuttle 航天飞机 /space-vehicle 航天器 /spacecraft ['speiskrɑ:ft] 宇航船 /satellite ['sætəlaɪt] 卫星 /module ['mɒdju:l] 太空舱 /shield [ʃi:ld] 掩体 /space station 太空站 /astronaut ['æstrənɔ:t] 宇航员 (naut 表航行) /crew [kru:] 乘务员 /United States Air Force 美国空军 /European Space Agency 欧洲宇航局 /consortium [kən'sɔ:tiəm] 国际财团, 机构 /collision [kə'liʒ(ə)n] 碰撞 /collide [kə'laid] *v.* 碰撞 /risk = threat + danger 威胁, 危险 /altitude ['æltitju:d] 高度 /cavity ['kæviti] = pit 空洞 /diameter [dai'æmitə] 直径
- 2) **动词群:** estimate ['estimeɪt] 估测 /detect [di'tekt] 探测 (detectable *adj.* 可探测的) /consider 认定 /pose 放置 /conduct [kən'dʌkt] 处置, 从事 /dramatize ['dræmətaɪz] 戏剧化 /determine [di'tɜ:mɪn] 测定 /increase [in'kri:s] 增加 /reduce [ri'dju:s] 减少

课文 (Text)

Scientists estimate that about 35 000 other objects, too small to detect with radar but detectable with powerful earth-based telescopes, are also circling the earth at an altitude of 200 to 700 miles. This debris poses little danger to us on the earth, but since it is traveling at average relative speeds of six miles per second, it can severely damage expensive equipment in a collision. This threat was dramatized by a cavity one-eighth of an inch in diameter created in a window of a United States space shuttle in 1983. The pit was determined to have been caused by a collision with a speck of paint traveling at a speed of about two to four miles per second. The window had to be replaced.

As more and more nations put satellites into space, the risk of collision can only increase. Measures are already being taken to control the growth of orbital debris. The United States has always required its astronauts to bag their wastes and return *them* to Earth.

The United States Air Force has agreed to conduct low-altitude rather than high-altitude tests of objects it puts into space so debris from tests will reenter the earth's atmosphere and burn up. Extra shielding will also reduce the risk of damage. For example, 2 000 pounds of additional shielding is being considered for each of six space-station crew modules. Further, the European Space Agency, an international consortium, is also looking into preventive measures.

1. It can be inferred from the passage that debris was harmful to one of the space shuttles because the debris was
A. large. B. moving very fast. C. radioactive. D. burning uncontrollably.
2. What effect did orbital debris have on one of the space shuttles?
A. It removed some of the paint. B. It damaged one of the windows.
C. It caused a loss of altitude. D. It led to a collision with a space station.
3. The word "them" in paragraph two refers to which of the following?
A. Astronauts. B. Wastes. C. Tests. D. Crew modules.
4. Which of the following questions is not answered by the information in the passage?
A. How can small objects orbiting the earth be seen?
B. What is being done to prevent orbital debris from increasing?
C. Why is the risk of damage to space equipment likely to increase?
D. When did the United States Air Force begin making tests in space?

阅读理解答案 (Key)

1. B 2. B 3. B 4. D

003 Brightness of a Star (恒星的亮度)

词群串讲 (Explanation for Word Groups)

- 1) **magnitude** ['mægnɪtju:d] *n.* 星的亮度, 可视亮度, 重大 [构词法] magni (大) + tude (名词后缀) [同根词] magnify ['mægnɪfaɪ] *v.* 放大 / magnificent [mæɡ'nɪfɪsənt] *adj.* 壮丽的 [同义词] brightness *n.* 亮度 / brilliance ['brɪljəns] *n.* 光辉 / illumination [ɪ'lju:mɪ'neɪʃən] *n.* 光亮, 照明度 / radiance ['reɪdjəns] *n.* 光辉
- 2) **luminous** ['lju:mɪnəs] *adj.* 发光的, 有启发的 [构词法] lumin (光亮) + ous (形容词后缀) [同根词] luminary ['lju:mɪnəri] *n.* 发光体 / illuminate [ɪ'lju:mɪneɪt] *v.* 照亮, 阐述 / luminance ['lju:mɪnəns] *n.* 亮度 [同义词] alight *adj.* 照亮的 / glowing *adj.* 光辉的 / bright *adj.* 明亮的 / luminescent [ˌlu:mɪ'nesnt] *adj.* 发光的 / fluorescent [fluə'resənt] *adj.* 发光的 [反义词] faint [feɪnt] *adj.* 昏暗的 /

dark *adj.* 黑暗的 /dim *adj.* 暗淡的 /faded *adj.* 淡色的

- 3) **astrology** [ə'strɒlədʒɪ] *n.* 占星术 (astro 星的 + logy 学问) [同根词] astronomy [ə'strɒnəmi] *n.* 天文学 /astronomer [ə'strɒnəmə] *n.* 天文学家 /astronaut [ˈæstrənɔ:t] *n.* 宇航员 [星座名词] Aldebaran 金牛宫座橙黄色星 /Polestar 北极星 /Alpha Centauri 主星 (即人马座 A 星) /Sirius 天狼星
- 4) **其他词组:** apparent brightness 表面亮度 /absolute magnitude 绝对亮度 /minus value 负面价值 /naked eye = unaided eye 肉眼 /inherently [in'hɪərəntli] *adv.* 固有地

课文 (Text)

The apparent brightness of a star as we see it from the earth is its apparent magnitude (M). A fairly bright star such as Aldebaran is of first magnitude (i. e., has $M = 1$), a rather fainter one such as the Polestar has $M = 2$, and so on. The faintest star visible to the naked eye has $M = 6$, and is 100 times fainter than a star of $M = 1$. The faintest detectable stars have $M = 23$. At the other end of the scale, stars brighter than first magnitude can have $M = 0$ (e. g., Alpha Centauri) or even minus values, such as Sirius with $M = -1.5$. The sun has $M = -26$. A star's apparent magnitude depends upon both its real brightness and its distance from us. It can happen that a star which is really very luminous can appear faint simply because it's far away. To compare the real brightness of stars, astronomers use absolute magnitude (M), this being the apparent magnitude a star would have if placed at a standard distance from the earth of 32.6 light years. The sun has $M = 4.8$ while Aldebaran has $M = -0.1$. Aldebaran is thus inherently nearly 100 times more luminous than the sun.

- In terms of apparent brightness, which of the following lists of stars is in the correct order from faintest to brightest?
 - The Polestar, Aldebaran, Alpha Centauri, Sirius.
 - Aldebaran, the polestar, Alpha Centauri, Sirius.
 - Sirius, Alpha Centauri, the Polestar, Aldebaran.
 - Sirius, Alpha Centauri, Aldebaran, the Polestar.
- A star with an apparent magnitude of $M = 16$ could best be described as
 - large and bright.
 - small, but visible to the unaided eye.
 - visible only through a telescope.
 - completely invisible.
- Which of the following would be observed by someone on earth looking with unaided eyes in the direction of two stars, one with $M = 1$ and one with $M = 5$?
 - One visible star.
 - Two stars of approximately equal brightness.
 - Two stars, one a great deal brighter than the other.
 - Two stars, one slightly brighter than the other.
- Which of the following questions do scientists answer by comparing the absolute magnitude of two stars?
 - Which star is farther away?

- B. Which star is really more luminous?
 C. Which star can be seen by the naked eye?
 D. Which star is closer to being 32.6 light years away?
5. This passage would most likely be assigned reading in a course in
 A. astronomy. B. geography. C. astrology. D. electrical engineering.

阅读理解答案 (Key)

I. A 2. C 3. C 4. B 5. A

004 Energy from Solar Light and Heat (来自太阳光和热中的能量)

词群串讲 (Explanation for Word Groups)

- 1) **liberate** ['libəreit] *v.* 解放, 释放 [构词法] liber (自由) + ate (动词后缀) [同根词] liberation [ˌlibə'reiʃən] *n.* 解放 /liberty ['libəti] *n.* 自由 /liberal ['libərəl] *adj.* 慷慨的 [同义词] release [ri'li:s] *v.* 释放 /emit [i'mit] *v.* 散发 (reemit 再释放) /set free 释放 /escape [i'skeip] *v.* 逸出, 逃出 [反义词] absorb [əb'sɔ:b] *v.* 吸收 /bind [baɪnd] *v.* 约束 [相关动词] filter ['filtə] *v.* 过滤 /pour [pɔ:] *v.* 倾注 /collide [kə'laid] *vi.* 碰撞 /fuse [fju:z] *v.* 溶合, 聚变 /convert [kən'veɪt] *vt.* 转换 /hinder ['hɪndə] *v.* 阻碍 (unhindered *adj.* 无阻的)
- 2) **interplanetary** [ˌɪntə'plænɪtəri] *adj.* 星际的 [构词法] inter (在……之间) + planet (行星) + ary (形容词后缀) [同根词] planetary ['plænɪtri] *n.* 行星的 /planetoid ['plænɪtɔɪd] *n.* 小行星 /planetarium [ˌplæni'teəriəm] *n.* 太阳系仪, 天文馆 [同义词] interstellar [ˌɪntə'stelə] *adj.* 星际的
- 3) **科技名词**: nucleus ['nju:kliəs] 原子核 (nuclei ['nju:kliɑi] 复数形) /nuclear ['nju:kliə] *adj.* 原子核的 /atom ['ætəm] 原子 /hydrogen ['haɪdrədʒn] 氢 /helium ['hi:liəm] 氦 /spectrum ['spektrəm] 光谱 /spectacle ['spektəkl] 壮观 /gamma radiation 伽玛射线 /electromagnetic radiation 电磁射线 /the solar interior 太阳内部 /the solar surface 太阳表面 /solar system 太阳系 /lunar orbit 月球轨道

课文 (Text)

A summary of the physical and chemical nature of life must begin, not on the earth, but in the sun; in fact, at the sun's very center. It is here that is to be found the source of the energy that the sun constantly pours out into space as light and heat. This energy is liberated at the center of the sun as billions upon billions of nuclei of hydrogen atoms collide with each other and fuse together to form nuclei of helium, and, in doing so, release some

of the energy that is stored in the nuclei of atoms. The output of light and heat of the sun requires that some 600 million tons of hydrogen be converted into helium in the sun every second. This the sun has been doing for several thousands of millions of years.

The nuclear energy is released at the sun's center as high-energy gamma radiation, a form of electromagnetic radiation like light and radio waves, only of very much shorter wavelength. This gamma radiation is absorbed by atoms inside the sun, to be reemitted at slightly longer wavelengths. This radiation, in its turn, is absorbed and reemitted. As the energy filters through the layers of the solar interior, it passed through the X-ray part of the spectrum, eventually becoming light. At this stage, it has reached what we call the solar surface, and can escape into space, without being absorbed further by solar atoms. A very small fraction of the sun's light and heat is emitted in such directions that, after passing un-hindered through interplanetary space, it hits the earth.

1. What does the passage mainly discuss?
 - A. The production of solar light and heat.
 - B. The physical and chemical nature of life.
 - C. The conversion of hydrogen to helium.
 - D. Radiation in the X-ray part of the spectrum.
2. According to the passage, energy is released in the sun when
 - A. helium atoms bind with each other.
 - B. gamma radiation escapes from the spectrum.
 - C. radiation is absorbed by helium.
 - D. nuclei of hydrogen atoms collide.
3. The passage indicates that, in comparison to radio waves, gamma waves
 - A. produce louder sound.
 - B. are less magnetic.
 - C. do not form in the sun's center.
 - D. are not as long.
4. According to the passage, through which of the following does the energy released in the sun pass before it becomes light?
 - A. The X-ray part of the spectrum.
 - B. Electromagnetic space.
 - C. The solar surface.
 - D. Interplanetary space.
5. It can be inferred from the passage that the sun's light travels
 - A. through solid objects in space.
 - B. in many different directions.
 - C. more slowly than scientist previously believed.
 - D. further in summer than in winter.

阅读理解答案 (Key)

1. A 2. D 3. D 4. A 5. B

005 The Comet Kohoutek (科霍特克彗星)

词群串讲 (Explanation for Word Groups)

- 1) **名词群 A:** compound ['kɒmpaʊnd] 化合物 /methyl cyanide 甲基氰 /hydrogen cyanide 氰化氢 /ammonia [ə'məʊniə] 氨 /methane ['mi:θeɪn] 甲烷 /key component 主要成分 /primordial remnants 原始遗留物 /bonanza [bə'nænzə] 富矿脉
- 2) **名词群 B:** Mercury ['mɜ:kjʊəri] 水星 /Venus ['vi:nəs] 金星 /Mars [mɑ:s] 火星 /Jupiter ['dʒu:pɪtə] 木星 /Saturn ['sætən] 土星 /Uranus ['juərənəs] 天王星 /Neptune ['neptju:n] 海王星 /Pluto ['plu:təu] 冥王星
- 3) **动词群:** predict [pri'dɪkt] 预示 /spot 发现 /track 跟踪 /fall short 未验证 /glean [gli:n] 收获, 发现 /reveal [ri'vi:l] 揭示
- 4) **spectacle** ['spektəkl] *n.* 场面, 壮观 [构词法] spect (看) + acle (名词后缀) [同根词] spectrum ['spektrəm] *n.* 光谱 /aspect ['æspekt] *n.* 方面 /respect *n.* 考虑, 着眼点 /spectator [spek'teɪtə] *n.* 观众 /suspect [sə'spekt] *v.* 怀疑 /unsuspecting *adj.* 意料不到的 /spectacular [spek'tækjulə] *adj.* 壮观的, 惊人的 [同义词] grand sight 壮观 /magnificent sight 壮观

课文 (Text)

It was not “the comet of the century” experts predicted it might be. Nevertheless, Kohoutek had provided a bonanza of scientific information. It was first spotted 370 million miles from earth, by an astronomer who was searching the sky for asteroids, and after whom the comet was named. Scientists who tracked Kohoutek the ten months before it passed the earth predicted the comet would be a brilliant spectacle. But Kohoutek fell short of these predictions, disappointing millions of amateur sky watchers, when it proved too pale to be seen with the unaided eye. Researchers were delighted nonetheless with the new information they were able to glean from their investigation of the comet. Perhaps the most significant discovery was the identification of two important chemical compounds—methyl cyanide and hydrogen cyanide—never before seen in comets, but found in the far reaches of interstellar space. This discovery revealed new clues about the origin of comets. Most astronomers agree that comets are primordial remnants from the formation of the solar system, but whether they were born between Jupiter and Neptune or much farther out toward interstellar space has been the subject of much debate. If compounds no more complex than ammonia and methane, key components of Jupiter, were seen in comets, it would suggest that comets form within the planetary orbits. But more complex compounds, such as the methyl cyanide found in Kohoutek point to formation far beyond the planets; there the deep freeze of space has kept them unchanged.