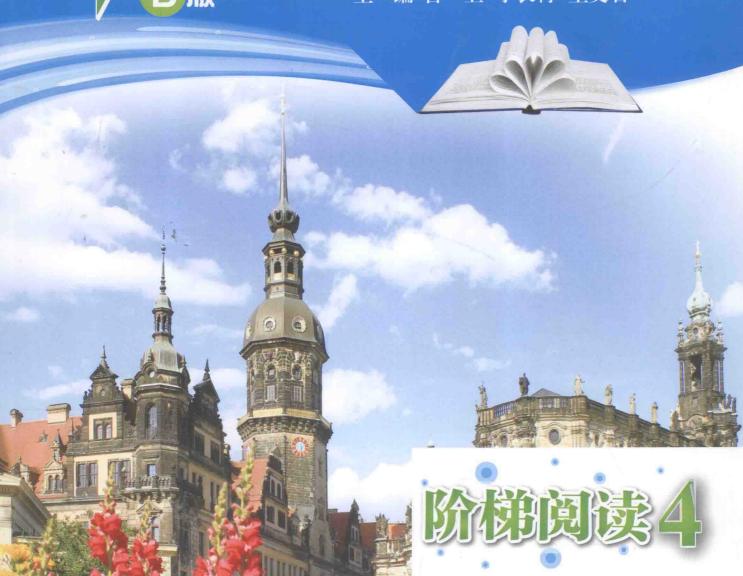
"十二五"国家重点图书出版规划项目 普通高等教育"十二五"重点规划教材







Nucleus 新核此大学英语 B版

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内容提要

本书包括八个单元,每个单元包括五篇阅读材料。两篇短篇文章长度为200~500词,两篇长篇文章长度为700~1200词,最后一篇文章是关于中国文化的,文后不设习题,主要是帮助学生了解中国历史文化的英语表达方式,提高他们对外交流能力。阅读材料的内容突出知识性,涉及自然学科和人文学科,体裁以说明文和议论文为主。

图书在版编目 (CIP) 数据

新核心大学英语 B 版阶梯阅读. 4/曾卫,于长青, 王文君主编. 一上海: 上海交通大学出版社,2014 (新核心大学英语) ISBN 978-7-313-11175-3

I. ①新··· II. ①曾··· ②于··· ③王··· III. ①英语 - 阅读教学 - 高等学校 - 教材 IV. ① H319.4

中国版本图书馆CIP数据核字(2014)第128727号

新核心大学英语B版阶梯阅读4

主 编:曾卫于长青王文君

出版发行: 上海交通大学出版社

邮政编码: 200030

出版人: 韩建民

印 制: 上海春秋印刷厂

开 本: 889mm×1194mm 1/16

字 数: 149千字

版 次: 2014年7月第1版

书 号: ISBN 978-7-313-11175-3/H

定 价: 29.50元

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告读者:如发现本书有印装质量问题请与印刷厂质量科联系 联系电话:021-33854186 地 址:上海市番禺路951号

电 话: 021-64071208

经 销:全国新华书店

印 张: 9.75

印 次: 2014年7月第1次印刷

《新核儿 大学英语》系列教材 B版

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前言

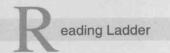
21世纪以来,我国相继出版了一批优秀的大学英语教材。如果说这些教材都是以趣味性、可思性、文学性和人文性为课文选材原则,提倡人文素质教育的话,那么《新核心大学英语》系列教材将在这些方面有一个新的突破。

2013年出版的《新核心大学英语B版快速阅读》系列教材得到广大师生的充分肯定。随着大学英语改革的推进,随着英语四、六级考试改革的深入,我们及时对其进行了改版,出版此套《新核心大学英语B版阶梯阅读》教材。

一、教材编写依据

《新核心大学英语B版阶梯阅读》是以《新核心大学英语B版读写教程》 为依托,从内容上对《新核心大学英语B版快速阅读》做进一步改进,提倡 科学素质教育,以content-based为编写原则,文章选材上偏向提高学术能力 的科普性文章。

目前,我国大学英语教学不再是单单打基础的阶段,不再是单纯地为学语言而学语言,而是趋向于与某一方面的专业知识或某一个学科结合的发展方向结合起来,换句话说,大学英语应当与学生的专业内容结合起来,这样才能体现新时期语言教学中的"需求分析"原则。《新核心大学英语B版阶梯阅读》正是为了适应我国大学英语教学转型要求而编写的,是为了帮助大学生达到《大学英语课程教学要求》中阅读部分的一般要求、较高要求和更高要求而编写的一套具有鲜明时代特色的大学英语教材;是培养学生查阅学术文献能力的需要,培养学生在较短时间里通过快速



阅读,查到自己所需要的信息。

二、教材结构框架

《新核心大学英语B版阶梯阅读》是《新核心大学英语》主干教材的配套教材,包括《新核心大学英语B版阶梯阅读基础级》、《新核心大学英语B版阶梯阅读2》、《新核心大学英语B版阶梯阅读2》、《新核心大学英语B版阶梯阅读3》、《新核心大学英语B版阶梯阅读4》五册。《新核心大学英语B版阶梯阅读》系列教材旨在培养学生语篇信息查找能力,训练学生快速阅读能力以及水平考试中阅读理解文章的能力。

每册包括八个单元,每个单元包括五篇阅读材料。教材中每个单元所选阅读材料基本与《新核心大学英语B版读写教程》相应单元的主题内容一致,难度略低于《新核心大学英语B版读写教程》,两篇短篇文章长度为200~500词,两篇长篇文章长度为700~1200词,最后一篇文章是关于中国文化的,文后不设习题,主要是帮助学生了解中国历史文化的英语表达方式,提高他们对外交流能力。阅读材料的内容突出知识性,涉及自然学科和人文学科,体裁以说明文和议论文为主。

三、教材使用说明

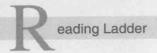
作为《新核心大学英语B版读写教程》的配套使用教材,我们建议《新核心大学英语B版阶梯阅读》每个单元的总学时数不少于2个课时,课内学时数不少于1个学时,学生课外自主阅读时间不少于1个学时。在每周大学英语课堂教学中教师根据具体授课进度、单元主题内容指定《新核心大学英语B版阶梯阅读》中相应的文章让学生进行阅读训练,教师也可以将本系列教材作为学生课后自主阅读的材料,教师对学生自主学习过程进行监督与评价。

编 者 2014年3月

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Unit 1 Urban Transportation



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Bike Share Boom: 7 Cities Doing It Right

Back in the 1960s, Amsterdam City Councilman Luud Schimmelpennink launched a plan to bring in 20,000 shared bicycles to help combat the city's traffic snarls (纠缠) and reduce air pollution. The idea was for people to use the bikes once, then leave them for another person when they were done. In theory it was a great program. But things didn't turn out as planned. The council rejected the proposal. It seems that Luud Schimmelpennink was ahead of his time. According to the New York City-based Institute for Transportation and Development (ITDP)[®], the number of cities having bike sharing programs has skyrocketed(1) in the last 10 years. Today, more than 600 cities deploy more than 700,000 bicycles. Of these, the largest systems are in China, in cities such as Hangzhou and Shanghai.

In most cases, users simply check out a bike with a pre-purchased⁽²⁾ membership card. Their cards are billed according to how long they use the bikes, calculated when they check it in at the next bike share station. In most cities, though, all you need is a credit card to sign up. Of the some 600 cities now operating bike share programs, ITDP has singled out seven for having world class systems: Barcelona, Lyon, Mexico City, Montreal², New York

Guess the meanings of the following words from their context.

- (1) skyrocket

- A. 迅猛发展 B. 被……替代 C. 用……连接
- (2) pre-purchased

- A. 持续追踪的 B. 事先购买的 C. 单独使用的

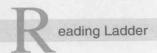
City, Paris and Rio de Janeiro³.

So what makes a bike share system a hit? ITDP says there are five critical elements:

- (1) Station density: A quality system needs 10~16 stations for every square kilometer, providing an average spacing of approximately 300 meters between stations.
- (2) Bikes per resident: 10~30 bikes should be available for every 1,000 residents within the coverage area.
- (3) Coverage area: The minimum area covered by a system should be 10 square kilometers.
- (4) Quality bikes: Bikes should be durable, attractive and practical, with a front basket to carry bags, packages or groceries.
- (5) Easy-to-use stations: The process of checking out a bicycle should be simple. Besides, a fully automated locking system and real-time monitoring of **occupancy**⁽³⁾ rates (to track whether more or fewer bikes are needed for each station) are also advisable.

The above findings are part of ITDP's just-released "Bike Share Planning Guide", which presents best practices and case studies of successful systems. ITDP says shared bikes are a remedy for urban mobility⁽⁴⁾ issues such as traffic, air pollution and the "last mile" problem of getting commuters to and from rail and bus stops. "Bike sharing is a post-ownership⁽⁵⁾ transport system that is environmentally sustainable, healthy and business-oriented," says Walter Hook, ITDP's Chief Executive Officer,

(3) occupancy	A. 占用	B. 空间	C. 侵占
(4) mobility	A. 机动性	B. 移动电话	C. 交通堵塞
(5) post-ownership	A. 邮政系统	B. 共同投资的	C. 后期所
	所有的		有权的



"It's the transport of the future." (439 words)

Abridged and revised from

http://edition.cnn.com/2013/12/05/travel/bike-share-boom-global-report/index. hmtl

Select the most appropriate answer for each of the following questions.

- (1) What can we learn from Luud Schimmelpennink's plan?
 - A. The 20,000 shared bikes were free of charge for users in Amsterdam.
 - B. It was designed to ease the traffic pressure and protect the environment.
 - C. It was financially sponsored by the Amsterdam City Council.
 - D. The 20,000 shared bikes were of poor quality and most of them were stolen in the end.
- (2) According to ITDP, the bike share program .
 - A. began to flourish in a lot of cities at the beginning of the 21st century
 - B. started first in Amsterdam, then spread quickly to other European countries
 - C. ended up in failure because Luud Schimmelpennink went bankrupt
 - D. failed to achieve the expected results in densely populated cities
- (3) It can be inferred from the second paragraph that _____.
 - A. users need to pay the bills first before they use the shared bicycles
 - B. users only need a credit card in big cities such as Barcelona
 - C. users check out a bike with a membership card and a credit card in most cases
 - D. Shanghai is ranked as one of the cities with the best bicycle sharing system
- (4) Which of the following factors does NOT contribute to a user-friendly bike share system?
 - A. Shared bikes have to be in good condition and with a front basket.
 - B. It does not take too much time to check out a bicycle.
 - C. Every shared bicycle needs to be equipped with a GPS system.
 - D. One to three bikes should be available for every 100 residents in big cities.

- (5) What does Walter Hook say about the bike share program?
 - A. It helps keep residents healthy, especially in larger regions.
 - B. It could cause "last mile" problems for commuters in metropolitan cities.
 - C. It is an environmentally-protected transport system with the aid of high technology.
 - D. It helps bridge the gap between the poor and the rich regions.

Notes

- ① The New York City-based Institute for Transportation and Development (缩写为ITDP): 总部位于纽约的交通与发展政策研究所,旨在为全世界尤其在发展中国家推广可持续发展、经济和环保的绿色交通方式。
- ② Montreal: 蒙特利尔,加拿大第二大城市。
- ③ Rio de Janeiro: 里约热内卢, 巴西最大的海港城市。

Passage 2

Time Taken: minutes

How Tech Can Prevent "Phantom" Traffic Jams

Can mounting radar sensors or cameras on cars help prevent some traffic jams? New research suggests so.

When a car slows quickly and unexpectedly, it can trigger(1) a chain

Guess the meaning of the following words from their context.

(1) trigger

A. 刺激

B. 引发

C. 发展

reaction in the cars behind it and create traffic slowdowns. It doesn't take construction or a fender-bender to disrupt traffic on a highway, just one driver **hastily**⁽²⁾ hitting his brakes. But Massachusetts Institute of Technology ^① Professor Berthold Horn has developed an algorithm (运算法则). His new findings can be used by cars to better reduce these kinds of "phantom" traffic jams: slowdowns not caused by accidents or road repairs.

Using Horn's system, multiple cars would detect the velocity and distance of the cars in front and behind them and then **regulate**⁽³⁾ their speed to avoid sudden braking and maintain a more consistent speed. Horn told the MIT News Office that one driver braking suddenly can have a ripple effect on the line of cars behind them, even if the driver just hit the brakes for a moment.

Completely **autonomous**⁽⁴⁾ car technology is under development at universities, car companies and even Google. But Horn's system isn't just for cars in the far-off future. He believes that it could be used by existing vehicles that have a feature called adaptive cruise control, which is found on some high-end cars.

Cars with adaptive cruise control are outfitted with radar sensors or digital cameras on the front of the vehicle. They detect nearby cars, how far away they are and how fast they're going. In addition to keeping a preset speed, a car with adaptive cruise control automatically adjusts the brakes to stay a safe distance from the cars ahead of it.

The system is great for people who often hit stop-and-go traffic. It can slow down when necessary to avoid accidents.

(2) hastily

A. 匆忙地

B. 吃惊地

C. 不满地

(3) regulate

A. 触动

B. 追踪

C. 调节

(4) autonomous

A. 自主的

B. 自动化的

C. 自由的

But Horn's system would take this a step further by adding sensors on the back of the car as well. A car that stays roughly halfway between those in front of it and behind it would be less likely to pass on any disruptions (5) in speed to the car behind it.

Horn describes his system as "bilateral control", — it works best when a lot of cars on the road are using it. The algorithm takes into account other human factors, like drivers' reaction time and typical behaviors such as speeding up to close gaps between cars.

Mounting a camera or sensor on cars is still a new and expensive technology, but it is a key part of automated driving advancements. In the future, cars could communicate with each other and share information about speed and traffic to better address issues that individual drivers can't fix on their own. (448 words)

Abridged and revised from

http://edition.cnn.com/2013/10/29/tech/innovation/smart-car-traffic/index.html

(5) disruption A. 碰撞 B. 打扰 C. 传导

Select the most appropriate answer for each of the following questions.

- (1) According to the author, a "phantom" traffic jam is caused by
 - A. drivers who are enchanted by ghosts
 - B. a chain of serious traffic accidents on the highway
 - C. sudden braking by one driver
 - D. road construction or repairs
- (2) What is Berthold Horn's new system?
 - A. It is a series of complicated mathematical calculations.
 - B. It detects the speed and position of the car ahead and avoids possible

accidents.

- C. It can be applied to future vehicles with adaptive cruise control.
- D. It enables us to have a driverless cruise.
- (3) It can be inferred from the passage that the adaptive cruise control _
 - A. is equipped with high-tech cameras on the back of the vehicles
 - B. enables a vehicle to automatically avoid road repair sites
 - C. enables a vehicle to stay an appropriate distance from the car ahead
 - D. is ideally installed on every newly-produced automobile
- (4) What does the author mean by describing his system as "bilateral control"?
 - A. The control system works only when it is set up on both sides of a vehicle.
 - B. The more vehicles on the road that use this system, the more effectively it works.
 - C. It means to add sensors on the back of the car as well as on the front of them.
 - D. The algorithm could calculate exactly how quickly drivers react in an emergency.
- (5) At the end of the passage, the author suggests that the mounted cameras are .
 - A. an immature technology and a lot of traffic problems remain unsolved
 - B. an expensive driving advancement that can only be used in the future
 - C. a new device to set up digital radio systems on future vehicles
 - D. a costly device, yet an effective means to help drivers avoid danger

Notes

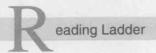
① Massachusetts Institute of Technology (缩写为 MIT):麻省理工学院,位于美国马萨诸塞州波士顿市,是美国一所综合性私立大学,有"世界理工大学之最"的美名。

-MIN -		
Daces	ma	2
Passa	LEC	3

Time Taken: _____ minutes

Directions: In this section, there is a passage with ten blanks. You are required to select one word for each blank from a list of choices given in a word bank following the passage. Read the passage through carefully before making your choices. Each choice in the bank is identified by a letter. Please mark the corresponding letter for each item. You may not use any of the words in the bank more than once.

Major cities in Africa, just like the jam-packed cities of China and India, are battling severe traffic congestion as the demand for modern transport increases. According to a research by the Stockholm Environment Institute (SEI), mounting gridlock is creating health and (1) risks, impeding economic development and making a(n) (2) contribution to climate change despite Africa's historically small carbon emission. In a recently (3) Policy Brief, SEI identified severe congestion issues in five sub-Saharan countries: South Africa, Uganda, Tanzania, Zambia and Zimbabwe. "The capital cities are growing enormously, and everyone is aspiring to a typical Western (4), and that means having a motorcar," said Howard Cambridge, a research associate at SEI. "You've got people on bicycles, rickshaws, mopeds, all going along main (5), causing bottlenecks." According to Cambridge, the transportation system in sub-Saharan Africa isn't designed to (6) the current number of road vehicles, let alone future growth. In addition, public transit systems in sub-Saharan Africa are not robust enough to



help ____(7) ___ demand. "It's also increasingly ____(8) ___ as people outside the city struggle to commute in for work" said Harry Vallack, an SEI research associate.

Another significant issue is road safety. Over the last two decades, as more and more vehicles have crammed onto the roads, the number of traffic deaths in Africa has ____(9) ___ increased. In the next 10 years, road deaths will become the fifth most common cause of death on the continent, ___(10) __ HIV and malaria, Cambridge said. (266 words)

Abridged and revised from http://www.eenews.net/stories/1059982085

(A) lifestyle (I) inconvenient
(B) routes (J) universal
(C) transportation (K) released
(D) accelerating (L) relieved
(E) overtaking (M) safety
(F) dramatically (N) accommodate
(G) definitely (O) ease
(H) enforce