**人大教材 L5**

**Lesson 5 Scanning: Rapidly Locating Information**

**READING SELECTION A Science and Technology**

**KEYS TO EXERCISES:**

1. ***READING COMPREHENSION***
2. C (In all the five sections the author discusses benefits and problems in the “new society” with apparently boundless potentials for scientific and technological advances.)
3. A (The technological advances of the 1990s ushered in what appeared to be a social and economic revolution that would rival the Industrial Revolution two centuries earlier, creating a new society of technologically connected citizens with a world of digitized information, commerce, and communication at its fingertips.)
4. D (“Plug in” means pushing the plug of a piece of electrical equipment into an electric socket to get it working, namely, to get it connected to a source of electricity. Here it is used to emphasize how much most people rely on computer networks in the new society. )
5. A (Paragraph 1: The 1990s allayed the fear that a technologically advanced society was necessarily heavily centralized, with Big Brother watching every move. Instead, with the creation of the Internet and the World Wide Web, and their emphasis on decentralization, equality, and the open sharing of resources, many individuals found that greater access to information increased their sense of personal freedom and power. )
6. B (The second paragraph: Yet, while experiments with human cloning or customizing a child’s genetic makeup seemed abhorrent to most Americans, there was general support for genetic research that could help to identify and cure genetic diseases or make food sources healthier and more plentiful for a growing global population.)
7. C (The second paragraph: The manufacturers try to create “terminator” seeds with stifled reproductive capacity “in order to maintain their cash flow”.)
8. B (Paragraph 3: Many people were worried the government intervention would “cripple the development of the Internet’ and they held “the idea of the Internet as an open, decentralized mass medium, where even the most absurd or repellant ideas could receive a hearing”.)
9. B (Paragraph 4: While genetic diseases could be discovered and perhaps cured, this information might be used to discriminate against people predisposed to certain genetic malfunctions, or to group individuals based on their genetic data.) A.
10. D (the last paragraph of the selection)
11. B (Still, some critics wondered if all of the money spent on space research might not be better used to fund new discoveries here on Earth, almost as if the diversion of space was no longer as necessary when there were so many new and interesting projects going on right here. Nanotechnology is discussed as an example of existing projects on earth.)
12. ***VOCABULARY***

**A.**

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

6. C 7. C 8. D 9. A 10. B

**B.**

1. at your fingertips 2. ushered in 3. decode 4. wreaked havoc
2. compromise 6. malfunction 7.toxic 8. discriminated
3. predisposed to 10. customized
4. ***CLOZE***
5. D 2. A 3. C 4. C 5. D
6. B 7. A 8. C 9. B 10. D

***IV. TRANSLATION***

1. 二十世纪九十年代的技术进步似乎带来了一场其意义堪与两百年以前的工业革命相媲美的社会与经济方面的革命，它创造了一个崭新的社会，在这个社会里人们由技术相互连接，到处都是数字化的信息、商业以及通讯都在弹指一挥间。
2. 科技的新发展似乎向人们承诺提供从消除有毒废料到食品采买一系列问题的最终解决方案——遗传科技人员培养出了能够吞食工业残渣的微生物，麻省理工学院媒体实验室的研究人员设计出了能够觉察箱内牛奶告罄并可上网定购的电冰箱。
3. 1997年克隆动物的成功表明了克隆人也已不成问题，人们担心人类可能会朝着一个由基因制造的人组成的“大胆的新世界”方向发展，（这已不再是单纯的理论问题了）。
4. 尽管大多数美国人赞成小孩不应接触这些内容，但试图规范个人网页和新闻组内容的努力还是同互联网应是公开、非集权的大众媒体的理念发生了冲突，在这种媒体中，即使最荒唐、最令人讨厌的东西也可以发表。
5. 但是一些批评人士提出质疑说，把花在太空上的钱用来资助地球上的新发现是不是更好呢？似乎地球上正进行着这么多有趣的新项目，太空研究不再那么必要了。

***V. ORAL PRACTICE AND DISCUSSION***

1. Why was the new “Digital Age” not all-inclusive?

Because some people could not get access to these new technologies for varied reasons. For instance, the elderly, who can’t accept all the changes the Digital Age has brought about, or who could not learn how to manipulate those sophisticated digital equipment, would probably be left behind. In addition, there still exist an underprivileged population, who could not afford the new technology.

1. List the threats confronting Americans’ privacy.

First, the threats come from the explosion of the Internet. Americans are worried that some malicious individual would, through the Internet, hack into protected computer systems to get government and military secrets, the source codes to proprietary software, others’ social security number etc. Computer virus could steal into personal computer systems through e-mail or the Web and damage it. Secondly, the threats come from the decoding of human genomes. Many Americans have the fear that the complete understanding of the human genetic code might be used to discriminate against some people, or to group individuals based on their genetic data.

3. What positive effects is the Human Genome Project likely to bring to American’s life? First, there would be promises for an end to genetic disorders. Secondly, it could help to identify and cure genetic diseases. Thirdly, it could make food sources healthier and more plentiful for a growing global population.

4. Describe the efforts made by NASA scientists during the 1990s in exploring the space.

NASA sent the giant Hubble Telescope into orbit to gather and transmit images of deep space. NASA scientists found possible evidence of bacterial life in a meteor from Mars, and distant planets were discovered that might contain water. In addition, NASA sent space probes to land on the surface of Mars, sent national hero John Herschel Glenn Jr. back into space to study aging. It also made plans to build an International Space Station with research teams from other countries.

5. What effect has the “Digital Age” brought to your life? Give examples.

Open.

1. Has your private computer been hacked into? Or have you ever got your pin for your e-mail box or messenger stolen? Describe the situation, and what you did to solve the problem.

Open.

1. What is your view on the possibility of genetically engineered people?

Open.

**More Information about the text**

**1. More about the book**

This volume completes the 20th century for the American Decades series. Set up in the same way as the other nine, it features sections on world events, arts, business, education, fashion, politics, law, lifestyles, media, medicine, religion, and science. Each section begins with a chronology of events and an overview of the decade and then presents topics and people who made the news. As with many brief summary tools, there is an occasional penchant to interpret for readers. However, this is mostly a straightforward recitation of events, facts, and dates. A 55-page general index and an index of photographs conclude the volume. The black-and-white photographs are generally small, but illustrative.

**2. Big Brother:**

Any person, organization, or system that seems to want to control people’s lives and restrict their freedom.

George Orwell (pseudonym of Eric Blair, 1903-1950) is a well-known British writer for his novels Animal Farm: A Fairy Story (1945) and Nineteen Eighty-Four and other publications. Nineteen Eighty-Four tells a story of dictatorship. By the year of the title (1984), the world is divided between Oceania, Eurasia, and Eastasia. London is the chief city of Airstrip One (formerly Britain), the control center of Oceania. At the apex of Oceania society is Big Brother, infallible and all powerful. Plastered everywhere are posters of the enormous face of the leader, with the caption Big brother is watching you. It is reasonably sure Big Brother will never die. The three slogans of the Party (the central organization) are “War is Peace,” “Freedom is Slavery,” “Ignorance is Strength.” The central character of the book, Winston Smith, is engaged in expunging from past newspapers and published books everything contrary to current policy, falsifying events and fabricating past utterances of Big Brother and his henchmen to bring them into line with the changed requirements of the moment. Though ubiquitous television screens and microphones record whatever is said and done, Smith goes into secret opposition. He is arrested and subjected to prolonged torture and degradation. In the end Smith’s shattered mind tells him “He had won the victory over himself. He loved Big Brother,” but there is no escape from the bullet from behind. Oceania alludes presumably to the socialist country, the former Soviet Union. Orwell is said to be anti-communist.

**3. Brave new world:**

Aldous Huxley wrote the novel Brave New World in 1931, before the advent of the Nazi totalitarian state, the more extreme development of the Soviet state during the 1930’s, and the Second World War. His version of total control was based on conditioning and drugs, rather than military might and terror. The vision was implemented by principles of mass production and consumption. Thus, Henry Ford was adopted as the new god. Where once there was Christ and his Cross, in the brave new world they had Ford and his Flivver.

It is interesting to compare Huxley’s new society with the one George Orwell describes in his novel 1984. Perhaps because Orwell wrote in 1947 after the cataclysm of the war and in full knowledge of the new totalitarianism, his dystopian vision was grounded in terror and brainwashing. While in both societies people were simply clogs of the state, in Brave New World the state provided continual pleasure as a substitute for freedom.

Toward the end of the book, the World Controller explains to Bernard and the Savage why contentment is more important than freedom or truth. This lengthy explanation is very much like the Grand Inquisitor’s tale in The Brothers Karamazov.

In the “brave new world” of 632 A. F. (After Ford), universal human happiness has been achieved. (Well, almost.) Control of reproduction, genetic engineering, conditioning--especially via repetitive messages delivered during sleep--and a perfect pleasure drug called “Soma” are the cornerstones of the new society. Reproduction has been removed from the womb and placed on the conveyor belt, where reproductive workers tinker with the embryos to produce various grades of human beings, ranging from the super-intelligent Alpha Pluses down to the dwarfed semimoron Epsilons.

Each class is conditioned to love its type of work and its place in society; for example, Epsilons are supremely happy running elevators. Outside of their work, people spend their lives in constant pleasure. This involves consuming (continually buying new things, whether they need them or not), participating in elaborate sports, and free-floating sex. While uninhibited sex is universal and considered socially constructive, love, marriage, and parenthood are viewed as obscene.

The story concerns Bernard, an alpha whose programming is a bit off--he is discontented and desires to spend time alone just thinking or looking at the stars. At one point he takes Lenina on a vacation to the savage reservation in New Mexico. There he discovers John (the Savage), son of Linda who had visited the reservation more than 20 years previously and was accidentally left behind. When she discovered she was pregnant (the ultimate humiliation!), she had to remain among the savages. John returns to the Brave New World where he is feted as the Visiting Savage. However, he cannot adapt to this totally alien society and, ultimately, he takes his own life.

1. **Human Genome Project:** international scientific effort to map all of the genes on the 23 pairs of human chromosomes and, eventually, to sequence the 3 billion DNA base pairs that make up these genes. Begun in 1990 and expected to require 15 years to map the genome, the study’s goal is to understand the basis of genetic diseases and to gain insight into human evolution. The project has identified genes for cystic fibrosis, neurofibromatosis, Huntington’s disease, and an inherited form of breast cancer. The project also will compare the human genome (the full set of genes and traits) with those from the bacterium E. coli, a fruit fly, and a nematode worm, in order to study genetic similarities among species. The mouse genome has also been decoded. The project involves laboratories in the United States, France, Great Britain, Germany, and Japan. It is financed in the United States by the National Institutes of Health (and, to a lesser degree, by the Department of Energy) and in Great Britain by the Wellcome Trust of London. A comparable project using new DNA (genetic material) sequencing machines was begun as a private industry venture in the United States in 1998, with a stated goal of completing the mapping of the genome in three years.

**5. NASA:** A US government organization that controls space travel and the scientific study of space.

**6. Hubble Telescope:** Using a Ritchcy-Chrétien design that affords wider and flatter fields of view than traditional Cassegrain systems, the telescope has a 7.9-ft (2.4-m) primary mirror that can observe 24 hours a day (but usually observes less than 20% of the time) in a sky that is always clear and always has perfect seeing. Among the instruments are two high-resolution cameras and two spectrographs, the HST was launched from shuttle Atlantis in 1990. Initial tests taken after its launch showed that the primary mirror was astigmatic, and it was discovered that the mirror had been mistakenly ground to the wrong figure. The telescope was repaired by astronauts of the space shuttle Endeavour in Dec., 1993. who replaced critical instruments and added corrective optics while in orbit. Subsequent servicing missions in 1997 and 1999 added capabilities to HST, which observes the universe at ultraviolet, visible, and near-infrared wavelengths. In Mar., 2002, astronauts from the space shuttle Columbia made repairs and improvements designed to enable the observatory to function for another decade.

**READING SELECTION B In Sports, Red Is Winning Color**

**KEYS TO EXERCISES**

***READING COMPREHENSION***

1. A (When opponents of a game are equally matched, the team dressed in red is more likely to win, according to a new study.)
2. C (Where there was a large point difference—presumably because one contestant was far superior to the other—color had no effect on the outcome.)
3. B (When opponents of a game are equally matched, the team dressed in red is more likely to win, according to a new study. The preponderance of red wins was great enough that it could not be attributed to chance.)
4. A (Her work with the large African monkeys known as mandrills shows that red coloration gives males an advantage when it comes to mating.)
5. D (Hill and Barton got the idea for their study out of a mutual interest in the evolution of sexual signals in primates—”red seems to be the color, across species, that signals male dominance and testosterone levels)
6. D (Another study by other scientists shows that red plastic rings experimentally placed on the legs of male zebra finches increase the birds’ dominance.)
7. A (Hill and Barton found their answer by studiously viewing Olympic combatants in the ring, on the mat, and in the field. They didn’t mention in swimming.)
8. C (though it is clearly not very widely appreciated, on a conscious level at least)
9. B (He adds that the finding of red’s advantage might have implications for regulations that govern sporting attire.)

10．D ( Meanwhile, Setchell noted—tongue-in-cheek—that a red advantage may not be limited to sports. “Going by the recent election results of the United States, red is indeed quite successful.)

**课文参考译文**

**第五课A**

**科学与技术**

**朱迪思 · 褒曼**

1. 乐观与强盛

到世纪末时，人类的发明和认识似乎没有止境。从物质的基本构成 单位到一切生命体的遗传密码，从宇宙的起源，也许到宇宙的最终完结，人们对科学的认识逐日扩大。二十世纪九十年代的技术进步似乎带来了一场其意义堪与两百年以前的工业革命相媲美的社会与经济方面的革命，它创造了一个崭新的社会，在这个社会里人们由技 术相互连接，信息、商业以及通讯都在弹指一挥间。以“信息高速公路”为代表的新“数字化时代”并不包括每一个人，许多人面临着被抛弃的威胁，包括老年人和无力使用新技术的人。不过，到了1999年仍有超过四分之三的美国人“接通”了这一全新的数字化社会，大多数美国人觉得技术进步正在提高他们的生活质量。这十年里，乐观情绪是人民生活的主色调。科技的新发展似乎向人们承诺提供最终解决从消除有毒废料到食品采买一系列问题的新希望——遗传科技人员培养出了能够吞食工业残渣的微生物，麻省理工学院媒体实 验室的研究人员设计出了能够觉察箱内牛奶告罄并可上网定购的电冰箱。过去人们认为一个技术发达的社会必定是高度集权的，有老大哥监视着人们的一举一动，但到了二十世纪九十年代，这种恐惧减轻了。相反，随着强调分散化、平等和公开资源共享的互联网及万维网的出现，许多人发现能够更多地接触各类信息增强了他们个人自由及权力感。

1. 伦理道德与自然

知识爆炸带来公众对这些新发现、新技术会将社会引向何处的忧虑。1997年克隆动物的成功表明了克隆人也已不成问题，人们担心人类可能会朝着一 个由基因制造的人组成的“大胆的新世界”方向发展，（这已不再是单纯的理论问题了）。1990 年启动的旨在破译人类整个基因组成的人类基因组工程为消灭基因疾病带来了希望， 但也令人恐惧地要开辟一条“定做婴儿”之路 , 这些婴儿的基因可以根据其父母的愿望加以调整。尽管许多人争辩说，几百年来，为了改善人类生活，动植物培育者一直在遗传学领域忙活，但另外一些人指出，遗传技术的新成果使得研究者得以越过大自然设定的界限，把人的基因移植到动物身上，使它们变成药厂；让植物能生产塑料并在黑暗中发光；甚至想办法制造出“绝命”种子，使其丧失繁殖能力，以保证种子厂家的滚滚财源。由于环境和机体都有可能被这种技术所改变，于是什么是“天然的”，这个问题引起了人们的认真 的思考。然而，尽管大多数美国对克隆人以及按需定做婴儿的基因组成感到憎恶，但又普遍支持有助于确定并治疗遗传疾病或使食物来源更卫生更丰盛以满足全球日益增长的人口的需求的遗传研究。

1. 隐私

随着二十世纪九十年代许多科技的发展，隐私就成了首当其冲的关注点。互联网是资源共享方面令人惊异新工具，可它也是获取本应保密的国家机密、军事机密、商业软件 [ 指非开放源代码软件 ] 的源代码、甚至邻居的社会保险号码的强有力的工具。公司和个人同样担忧电脑黑客“闯入”设有保护的电脑系统，删除或盗窃重要数据，从而使私人信息遭到破坏。存心不良的人编写的电脑病毒，即可自行复制的编码，可通过电子邮件或网络潜入个人电脑系统大肆破坏存储在那里的数据。在互联网上保护个人私秘不是 一件容易的事情。许多人担心政府方面试图插手只能会阻碍互联网的发展。而当有关团体 组织以“保护儿童”的名义游说政府禁止网上出现色情及其它令人不安的东西时，也引起了同样的忧虑。尽管大多数美国人赞成小孩不应接触这些内容，但企图规范个人网页和新闻组内容的努力还是同互联网应是公开、非集权的大众媒体的理念发生了冲突。在大众媒体领域里，即使最荒唐、最令人讨厌的东西也应能找到发表之地。有些公司监视员工使用互联网和收发电子邮件，使工作场所中数字监控成为倍受关注的问题。

1. 遗传学与隐私

遗传学的发展也威胁到了个人隐私。人类基因组项目定于二十一世纪初完成，许多私人公司竞相获取遗传发现的专利，于是不少人担心科学家彻底掌握了 人类遗传密码之后可能会干出什么事情来。虽然遗传疾病有可能被发现，也许还会治好， 但有人也许会利用这个信息去歧视那些易患某种基因疾病的易感人群，或根据基因数据歧视某些群体。科学家更会拥有人类基因密码专利，这点也令许多人惴惴不安，因为这意味着人的生命会变成一种专享资源。

1. 大科学和小科学

美国国家宇航局仍然干着举世惊叹的事情，他们把哈勃望远镜送入轨道来获取人类从未见过的宇宙深处图像，并送回地球。这些图像提供了极具诱惑力的宇宙起源的线索。九十年代，宇航局的科学家从一块火星的陨石中发现了可能会证明细菌存活的证据，发现了遥远的行星上可能有水，人们继续在寻找外星生命。宇航局发送宇宙探测器登陆火星，将美国航天英雄小约翰 · 赫谢尔 · 格伦再次送入太空研究衰老问题，还制定计划同来自其它国家的研究组织共同建立一个国际太空站。但是一些批评人士提出质疑说，把花在太空上的钱用来资助地球上的发现上是不是更好呢？似乎地球上正进行着这么多有趣的新项目，太空研究不再那么必要了。最令人心仪的新领域是纳米技术，这项研究是力图在分子水平上操纵物质，用原子建立新的构件以用于微型制造业、药物体内释放系统及微型计算机等。新发现的碳元素家族成员富勒烯使得纳米技术的研究人员有了新 的研究材料。这一科学领域在新旧世纪交替时期仍处在实验阶段，但科技人员及政府官员已经看到了这门微科学的巨大潜力。

**第五课 B**

**红色，赛场上的胜利之色**

**约翰 · 罗池**

1. 敬告运动服装商店：须备足红色的运动服。
2. 据一项新的研究，当比赛的对手势均力敌的时候，穿红色运动服的队获胜的可能性更大。
3. 英国达勒姆大学的人类学家拉塞尔 · 杀尔和罗伯特 · 巴顿通过研究 2004 年希腊雅典夏季奥运会上一对一的拳击、跆拳道、古典式摔跤和自由式摔跤比赛的结果得出了这一结论。
4. 在进行每一项比赛时，奥运会的工作人员随机地给运动员分配红色或蓝色的运动服或身体保护装备。当双方运动员在体能和技能方面势均力敌的时候，身穿红色服装的运动员获胜的可能性更大。
5. “当运动员双方差别很大时——假设是因为一个运动员比另一个运动员强得多——服装颜色对比赛结果没有影响，”马顿说，“当差别很小的时候，服装颜色的效果就足以打破平衡了。”
6. 这两位人类学家说，在双方势均力敌的比赛中，红色获胜的概率非常大，大到不能归因于运气。希尔和巴顿考察了 2004 年欧洲足球锦标赛运动队着装的颜色，发现了类似的结果。
7. 英国剑桥大学的一个灵长类动物研究员乔安娜 · 塞特谢尔在自然界也发现了类似的现象。她对叫做山魈的非洲大猴子的研究表明，在交配方面，红的体色使雄性具有一种优势。
8. 她对红色在人类体育比赛中同样具有一种优势的发现一点也不吃惊。她说：“开展这项研究的想法很聪明。”

**性吸引**

1. 希尔和巴顿开展这项研究的想法来自对灵长类动物性信号进化问题的共同兴趣——“对所有物种来说，红色似乎是象征雄性统治地位和睾丸素水平的颜色。”巴顿说。
2. 例如，剑桥灵长类动物研究员塞特谢尔的研究表明，占支配地位的雄山魈在其脸部和臀部有更多的红色。另一项其他科学家的研究表明，在试验中安放到雄性灰头文鸟腿上的红色塑料环能增强这种鸟的优势地位。
3. 巴顿说，他和希尔推测：“（红色）对人类可能有同样的影响。假如是这样的话，（这种现象）在体育比赛中可能非常明显。”
4. 巴顿和希尔通过用心观察奥林匹克参赛队员在拳击场、比赛垫和运动场上的拼搏，找到了他们的答案。“在一系列体育项目的比赛中，我们发现穿红色服装始终都与更大的获胜可能性相关。”研究人员在《自然》杂志上写道。
5. 这两位人类学家说，他们的研究成果表明性选择可能影响了人类对颜色反应的 进化。
6. 灵长类动物学家塞特谢尔同意这种观点。“正像希尔和巴顿说的那样，当我们生气时脸会变红，当我们害怕时脸会变白。这些对别的个体来说是很重要的信号。”她说。

**优势色：红色**

1. 从体育运动中红色运动服的流行来判断，也许人们直觉上知道红色的优势—“不过人们显然（至少在有意识的程度上）还没有普遍重视这一点。”巴顿说。
2. 他补充说，红色优势的发现可能对管理运动服装的规则有影响。比如说，在他为这项新研究而调查的奥运会比赛中，很可能一些奖牌得主是由于无意中占了便宜而登上了领奖台。
3. “那就是红色的影响，虽然我们说不出它在哪一特定情况下起到了决定胜负的作用。”巴顿说。

[18] 同时，塞特谢尔半开玩笑地指出，红色的优势也许不只限于体育比赛。“从最近美国大选的结果来看，红色确实很成功。”她说。