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## Unit One



## World Water Resources



## Part One

## Reading and Translation

**Lead-in****Discuss the Following Questions:**

1. From your personal experience, how could you save water at home and at office?
2. What can government do to help save water resources?

**Word Bank**

precipitate 沉淀物, 猛抛, 使陷入, 促成, 使沉淀	preservation 保存, 储藏; 保持; 维护
renewable 可更新的, 可恢复的	regional 整个地区的, 地方的, 地域性的
available 可用到的, 可利用的	additional 另外的, 附加的, 额外的
availability 可用性, 有效性, 实用性	supply 补给, 供给, 供应品, 补充, 代理
withdraw 收回, 撤消; 缩回, 退出	contribute 捐助, 捐献, 贡献, 投稿
withdrawal 收回, 撤退, 退回, 取消, 退隐, 停止服药, 退股	increase 增加, 增大, 增长, 繁殖
agriculture 农业, 农艺	demand 要求, 需求(量), 需要, 查询
industry 工业, 产业, 行业, 勤奋	substantially 主要地; 实质上地; 重大地; 相当大地

fresh water, it is thought that most fresh water is readily available. About 69% of world freshwater withdrawals are for agriculture, 23% for industry and 8% for direct human use ( World Resources Institute, 1998 ). At first glance, there seems to be adequate renewable freshwater, but when uses for ecosystem preservation, large differences in the pattern of regional availability and use, and the expense of developing additional supplies are considered, there is less water for human use than might be supposed. Moreover, taking into account population and economic growth, both of which contribute to increased demands on and pollution of water supplies, world fresh water is expected to become substantially more stressed in future decades.

As with many problems, the water problem breaks down into component parts which, though interrelated, are amenable to a range of different solutions. Two particularly difficult and costly problems will be maintaining and improving water quality, and insuring that those on the margins have access to safe drinking water. As to the first, some data show that many of China's river reaches are so polluted that they are unsuitable for direct human contact, although such contact is a regular part of life in the country. As to the second, it is usually estimated that at least 20% of the world's population, or more than 1 billion people, lack access to safe drinking water ( World Meteorological Organization, 1997 ).

Water resources distribution over the territory of the Earth is uneven. Also they disagree with population spread and economic development. These are very clearly revealed by analyzing and comparing the specific water availability for a single period of time for different regions and countries. The specific water availability represents the value of actual per capita renewable water resources.

For every design level the specific water availability is determined by dividing water resources without water consumption by the population number. In this case, water resources are assumed to be the river runoff formed in the territory of the given region and summed up with half the river water inflow from outside. So, the specific water availability is meant the residual ( after use ) per capita quantity of fresh water. Obviously, as population and water consumption grows, the value of specific water availability decreases.

The values of specific water availability were obtained for all natural econom-

**Section B**

Directions: In this section there are 10 incomplete sentences. For each sentence there are four choices marked A, B, C and D. Choose the one that best completes the sentence.

1. Their greatest weakness \_\_\_\_\_ itself during the discussion.  
A. reversed      B. revealed      C. resembled      D. reserved
2. After the revolution, the \_\_\_\_\_ of the country remained tense.  
A. climate      B. temperature      C. weather      D. air
3. I'll always stand \_\_\_\_\_ you whatever happen.  
A. for      B. by      C. with      D. to
4. It was a difficult time for her, but she \_\_\_\_\_ through beautifully.  
A. managed      B. weathered      C. survived      D. settled
5. The teacher \_\_\_\_\_ him for his neglect of duty.  
A. recognized      B. reflected      C. refused      D. blamed
6. There is an \_\_\_\_\_ lack of food in that area.  
A. alert      B. alien      C. acute      D. aggressive
7. Take your \_\_\_\_\_ to the hospital pharmacist's and they'll make it up for you.  
A. description      B. proposition      C. prescription      D. perception
8. He \_\_\_\_\_ to me that he had once been in prison.  
A. confided      B. conveyed      C. compromised      D. convicted
9. His hands were covering his face, but I could see him \_\_\_\_\_ through his fingers.  
A. pleading      B. polishing      C. presuming      D. peeping
10. To be quite \_\_\_\_\_, I think you've made an awful mess of things.  
A. brutal      B. cautious      C. clumsy      D. blunt

**Translation**

Directions: Translate the following sentences into Chinese.

1. Water is one of the Earth's natural resources. It is a finite resource, which means that the total amount of water is limited. Most of the world's water supply is saltwater stored in the oceans. Converting saltwater to freshwater is gen-

erally too expensive to be used for industrial, agricultural or household purposes.

2. The quantity and quality of the world's water supply depends on how we choose to use water. Our use can be consumptive, which means that the water is not returned to nature (such as drinking water), or non-consumptive. Non-consumptive use returns water, polluted or not, to the system. Creating hydroelectric power is an example of non-consumptive use.
3. As to the first, some data show that many of China's river reaches are so polluted that they are unsuitable for direct human contact, although such contact is a regular part of life in the country. As to the second, it is usually estimated that at least 20% of the world's population, or more than 1 billion people, lack access to safe drinking water.



## Reading B

Sunshine might be healthier than most people think, outweighing the risk of skin cancer, British doctors suggested last week—and ran straight into a storm. The four researchers at Bristol University in western England were accused of weakening years of campaigning to warn people of the dangers of too much sun. Experts agree exposure to the sun's ultraviolet rays increases the risk of skin cancer and accelerates the signs of aging. But in the British Medical Journal, the Bristol team led by Andrew Ness wrote: "There is evidence that the potential benefits of exposure to sunlight may outweigh the widely publicized adverse effects on the incidence of skin cancer."

Vitamin D, made in the body in reaction to sunlight, prevented rickets (软骨病) in children and was associated with a protective effect against heart disease.

Sunshine was also useful for treating certain skin conditions and there was evidence that it reduced the incidence of multiple sclerosis (硬皮症). There was also the "feel good" effect of lying or sitting in the sun. The researchers said it was premature to advise people to spend more time in the sun, but suggested the basis of the current advice to cover up should be reviewed.

"Perhaps, while we await the conclusions of such formal analyses, those

of us who enjoy spending time in the sun can rest assured that the chance that we will be one of the people dying from the sun is small,” they added.

Their article was strongly criticized by health campaigners who claimed it was unbalanced and not *backed* by scientific evidence. Britain’s Health Education Authority said skin cancer was the most common form of cancer in the country, with more than 50,000 new cases diagnosed each year and more than 2,000 people dying from the disease. It said treatment almost always required surgery and almost 50 per cent of cases were fatal. The authority’s skin cancer campaign manager Christopher New said: “We are very disappointed with this controversial article. It doesn’t have enough supporting evidence and runs the risk of undoing many years of *good health education*.”

## Reading Comprehension

Directions: *The passage is followed by five questions or unfinished sentences. For each of them there are four choices marked A, B, C and D. Choose the best answer.*

- Which of the following is NOT the benefit of sunshine according to Andrew Ness?
  - Sunlight helps make Vitamin D which can prevent rickets in children.
  - Sunshine is useful for treating certain skin conditions.
  - Sitting in the sun makes people feel good.
  - Darker skin looks healthier.
- What does the Bristol team support?
  - Exposure to sunshine may outweigh the risk of skin cancer.
  - People should spend less time in the sun.
  - Sunshine does more harm than good to skin.
  - Most of the skin diseases are fatal.
- What does the word “back” mean?
 

A. Argue.	B. Stop.	C. Sway.	D. Support.
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- What does the “good health education” refer to?
  - Reminding people about the benefits of exposure to sunlight.
  - Warning people of the danger of too much sun.



even possible to give a reasonable estimate of their “expectation of life”, the time it will take to exhaust all known sources and reserves of these materials.

### 翻译 分析

该句的骨干结构为 “It is realized that...”, it 为形式主语, that 引导主语从句以及并列的 it is even possible to... 结构, 其中, 不定式做主语, the time... 是 “expectation of life” 的同位语, 进一步解释其含义, 而 time 后面的句子是它的定语从句。五个谓语结构表达了四个层次的意义: A. 可是现在人们意识到; B. 其中有些矿物质的蕴藏量是有限的; C. 人们甚至还可以比较合理地估计出这些矿物质 “可望存在多少年”; D. 这些已知矿源和储量将消耗殆尽的时间。根据同位语从句的翻译方法, 把第四层意义的表达作适当的调整, 把该句翻译成:

译文: 可是现在人们意识到, 其中有些矿物质的蕴藏量是有限的, 人们甚至还可以比较合理地估计出这些矿物质 “可望存在多少年”, 也就是说, 经过若干年后, 这些矿物质的全部已知矿源和储量将消耗殆尽。

**例 3** Researchers have established that when people are mentally engaged, biochemical changes occur in the brain that allow it to act more effectively in cognitive areas such as attention and memory.

### 翻译 分析

该句子有一个主从复合句, 含有 that 引导的宾语从句, 在 that 引导的宾语从句中又含有一个由 when 引导的时间状语从句和 that 引导的定语从句。共有四层意思: A. 研究人员证实; B. 当人们在进行脑力活动时, 大脑就会产生很多生物化学方面的变化; C. 这种变化使得大脑更加有效地活动; D. 在注意力和记忆力这类认知区域中。上述四层意思的逻辑关系和表达的顺序与汉语基本一致, 因此, 可以通过顺序法, 把该句翻译成:

译文: 研究人员证实: 当人们在进行脑力活动时, 大脑就会产生很多生物化学方面的变化, 这种变化使得大脑在注意力和记忆力这类认知区域中更加有效地活动。

## 二、逆序法

英语有些长句的表达次序与汉语表达习惯不同, 甚至完全相反, 这时必须从原文后面开始翻译。

**例 1** Aluminum remained unknown until the nineteenth century, because nowhere in nature is it found free, owing to its always being combined with other elements, most commonly with oxygen, for which it has a strong affinity (微粒之间结合的相互吸引或能力)。

### 翻译 分析

这个句子由一个主句、两个原因状语从句和一个定语从句组成。“铝直到 19 世纪才被人发现” 是主句, 也是全句的中心内容, 全句共有四个谓语结构, 包含



## Part Three Tips for Writing

### Daily English Writing—Resume

Your resume or CV (curriculum vitae) is your visiting card. It represents you that it has a specific purpose. Every person's background, employment needs, and career objectives are different, thus, necessitating unique resume designs.

When preparing a resume, you select facts about your background that will present you as positively as possible. Don't lie or concoct credentials, but select those that present the best impression.

#### ***Fastest Way to Improve a Resume***

Remove everything that starts with "responsibilities included" and replace it with on-the-job accomplishments.

#### ***Most Common Resume Mistake Made by Job Hunters***

Leaving out their Job Objective! If you don't show a sense of direction, employers won't be interested. Having a clearly stated goal doesn't have to confine you if it's stated well.

#### ***Best Way to Impress an Employer***

Fill your resume with "PAR" statements. PAR stands for Problem-Action-Results; in other words, first you state the problem that existed in your workplace, then you describe what you did about it, and finally you point out the beneficial results. Here's an example: "Transformed a disorganized, inefficient warehouse into a smooth-running operation by totally redesigning the layout; this saved the company thousands of dollars in recovered stock."

#### ***Here's How:***

1. First, take notes on your work experience—both paid and unpaid, full time and part time. Write down your responsibilities, job title and company information. Include everything.

## Expressions and Samples

education 教育程度	educational history 学历
curriculum included 课程包括	curriculum 课程
major 主修	minor 副修
educational background 教育程度	educational highlights 课程重点部分
specialized courses 专门课程	special training 特别训练
social practice 社会实践	intern 实习生
summer jobs 暑期工作	vacation jobs 假期工作
excellent League member 优秀团员	extracurricular activities 课外活动
physical activities 体育活动	recreational activities 娱乐活动
academic activities 学术活动	social activities 社会活动
rewards 奖励	prize fellow 奖学金生
refresher course 进修课程	excellent leader 优秀干部
graduate student 研究生	abroad student 留学生
master 硕士	bachelor 学士
post doctorate 博士后	Doctor (Ph. D) 博士
marks 分数	degree 学位
term 学期 (英)	supervisor 论文导师
academic year 学年	government-supported student 公费生
in-job training 在职培训	educational system 学制
student council 学生会	off-job training 脱产培训

### Sample 1

Resume of Lin Lin

Graduating Class

Department of International Commerce,

University of International Business and Economics

Beijing 100013

### Job Objective

To work as futures broker at a futures brokerage company in Guangdong Province.

## Education

1991—Present                      B. S. in Commerce, Department of International Commerce,  
University of International Business and Economics.

Major:                                Futures Transaction

### Courses and Their Marks:

International Futures Trade History	90
Commodities Futures	92
Gold Futures	88
Foreign Currencies Futures	88
Stocks Index Futures	90
Futures Brokerage Study	94
Futures Price Analysis and Forecast	88
Western Futures Operations	90
Western Economics	86
Statistics	92
Business Law	90

1985—1991                      Heping No. 3 Middle School

## Summer Jobs

1993—1994                      Broker at Beijing Commodities.

1993—1995                      Did brokerage for over ten clients.

## Social Activities

1992—Present                      Head of Department Student

1986—1991                      Class monitor

## Special Skills

College English Test-Band Six  
Experienced in IBM

## Personal Interests

Chess, bridge, symphonic music

## Personal Data

Sex: Male                              Birth date: November July 25, 1979.

Native Place: Baoding              Health: Excellent

REFERENCES ARE AVAILABLE UPON REQUEST

**Sample 2****RESUME****Ji Yuan****Taiyuan 23 South XianJie****South China Computer Company (020) 7776560****Guangzhou 510060****Position Sought:****Computer Programmer with a foreign enterprise in Dalian****Qualification:****Four years' work experience operating computers extensively, coupled with educational preparation.****Professional Experience:****Computer Programmer in South China Computer Company, Guangzhou from 1990 to present.****Educational Background:****South China University of Technology****B. S. in Computer Science****July 1990****Courses taken:****Computer Science Systems Design and Analysis****PASCAL Programming Operating Systems****COBOL Programming D-BASE Programming****FORTRAN Programming Systems Management****No. 34 Middle School****1981—1986****English Proficiency:****Fluent in speaking, reading and writing.****Hobbies:****Bridge, Computer games, Boating, Swimming****Personal Data:****Born: November 29, 1970 Health: Excellent****Marital Status: Single Height: 175cm****Weight: 68kg****REFERENCES ARE AVAILABLE UPON REQUEST****Written Task****Write a resume of your own for future use.**

Reading *A***Environmental Engineering**

Environmental engineering is the application of science and engineering principles to improving the environment ( air, water, and/or land resources ), to provide healthful water, air and land for human habitation and for other organisms, and to investigate the possibilities for remediation of polluted sites. It is thought human effects can be decreased and controlled through public education, conservation, regulations, and the application of good engineering practices.

***Development of Environmental Engineering***

As long as people recognized that their health and well-being were related to the quality of their environment, they were applying thoughtful principles to improve the quality of their environment. The Romans constructed aqueducts to prevent drought and create a clean healthful water supply for the metropolis of Rome. Bavaria in the 15th century created laws restricting development and degradation of alpine country that constituted the region's water supply.

In many cases as societies grew, actions were taken to achieve benefits for those societies, but longer-term impacts reduced other environmental qualities. One example is the widespread application of DDT to control agricultural pests in the years following World War Two. While the agricultural benefits were outstanding and crop yields increased dramatically, thus reducing world hunger substantially, and malaria was controlled better than it ever had been, numerous species were brought to the verge of extinction due to the impact of the DDT on their reproductive cycles.

Conservation movements and laws restricting public actions that would harm the environment had been developed by various societies for millennia. Laws decreeing the construction of sewers in London and Paris in the 19th century, and the early 20th century creation of the U. S. national park system are notable examples.

"Pollutants" may be chemical, biological, thermal, radioactive, or even mechanical. Environmental engineering emphasizes several areas: process engi-

neering, environmental chemistry, water and wastewater treatment (sanitary engineering), waste reduction, and pollution prevention. It is a synthesis, incorporating elements from civil engineering, chemical engineering, public health, mechanical engineering, chemistry, biology and geology.

### ***Division of Environmental Engineering***

#### **1. Environmental impact assessment and mitigation**

In this division, engineers and scientists assess the impacts of a proposed project on environmental conditions. They apply scientific and engineering principles to evaluate if there are likely to be any adverse impacts to water quality, air quality, habitat quality, flora and fauna, agricultural capacity, traffic impacts, noise impacts, visual impacts, etc. If impacts are expected, they then develop mitigation measures to prevent such impacts. An example of a mitigation measure would be the creation of wetlands in a nearby location to mitigate the filling in of wetlands necessary for a road development if it is not possible to reroute the road.

#### **2. Water supply and treatment**

Engineers and scientists work to secure water supplies for potable and agricultural use. They evaluate the water balance within a watershed and determine the available water supply, the water needed for various needs in that watershed, the seasonal water movement through the watershed and they develop systems to store, treat, and convey water for various uses. Water is treated to achieve water quality objectives for the end uses. In the case of potable water supply, water is treated to minimize risk of infectious disease transmittal, risk of non-infectious illness, and create a palatable water flavor. Water conveyance systems are designed and built to provide adequate water pressure and flow rates to meet various end-user needs such as fire suppression, showering and irrigation.

#### **3. Waste water conveyance and treatment**

Most urban and many rural areas no longer discharge human waste directly and through outhouse, septic, and/or honey-bucket systems, but rather deposit waste into water and convey it from households via sewer systems. Engineers and scientists develop conveyance and treatment systems to carry this waste material away where people live and produce the waste and discharge it into the environment. In developed countries, substantial resources are applied to the treatment

gin where your reader is and lead quickly to your purpose in writing.

### ***First Paragraph Tips***

To make your goal clear, you should:

1. Confirm that you are applying for the position.
2. Say where you learned about the position. If you're answering an advertisement, name the position stated in the ad and identify the source, for example: "your advertisement for a graphic artist, which appeared in the Chicago Sun Times, May 15, 1998..."
3. Say why you want the position.
4. Say why you would be a benefit to the organization.

Another way of opening your application letter is to ask a question: "Do you need a good, experienced proof-reader?" that catches the employer's attention and gets right to the point, but you must support your claim in the next paragraph.

Additionally, in your first paragraph you should provide a preview of the rest of your letter. This tells your reader what to look for and lets him or her know immediately how your qualifications fit the requirements of the job. In the example letter, the last sentence of the first paragraph refers to specific work experience that is detailed in the following paragraph.

### ***Highlight Your Qualifications***

Organize the middle paragraphs in terms of the qualifications that best suit you for the job and the organization. That is, if your on-the-job experience is your strongest qualification, discuss it in detail and show how you can apply it to the needs of the company. Or if you were president of the Marketing Club and you are applying for a position in marketing or sales, elaborate on the valuable experience you gained and how you can put it to work for them. If special projects you've done apply directly to the job you are seeking, explain them in detail. Be specific. Use numbers, names of equipment you've used, or feature of the project that may apply to the job you want.

One strong qualification, described so that the reader can picture you actively involved on the job, can be enough. You can then refer your reader to your



## 2. The body

The body of the letter provides you with an opportunity to present yourself to the employer:

- (1) Tell the reader about your present job and why you are looking to move on.
- (2) Explain why you are suitable for this job.
- (3) Emphasize the skills you have which make you particularly suitable for the job.
- (4) List briefly the personal qualities you would bring to it.
- (5) Answer any specific questions posed by the advert or job details.

It is important not to write too much, however. Two, or at most three, short punchy paragraphs are much more effective than two sides of rambling prose.

## 3. The conclusion

The conclusion should round the letter off, leaving the reader with a positive image. It should sum up briefly the selling points made in the body of the letter, mention any items (including the CV) you are enclosing, and express willingness to provide any further information that the reader may want. Conclude your letter by offering to be interviewed at the company's convenience, and add a polite of thanks.

## Expressions and Patterns

1. Owing to the reputation of your university, I am interested in being a graduate student in your university. 贵校美誉四扬, 我想成为贵校的研究生。
2. Your university is in the forefront of work in this area, I would like very much to do my postgraduate work there. 贵校在这一领域的研究很领先, 我想申请到贵校完成我的研究生学习。
3. I am an honors student in my college, but I come from a family of very limited means. 我是一名优秀学生, 但我的家境不太好。
4. I should like to obtain application forms for your college, and the proper information about your scholarship program. 我想索取贵校的入学申请表及申请奖学金的有关信息。
5. I should be most grateful if you would kindly offer him a scholarship at your u-