

高等学校试用教材

英 语

第 二 册

南开大学外文系蒋增光、钱建业主编

人 民 教 育 出 版 社

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本书供高等学校理科各专业基础阶段使用，
由南开大学外文系蒋增光、钱建业主编。

南开大学孙静生、张初荪也参加了第二册的
部分编写工作。第二册初稿曾由南开大学外文系
李宜燮、高殿森、菲利斯·阿莫斯夫人和约翰·加
纳先生审阅过。

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前 言

本书为高等学校理科各专业基础阶段使用的英语教材第二册。本册共14课。除正式课文外，每课还有阅读材料一篇。书后附补充阅读材料18篇。

1978年9月全国外语教育座谈会决定把公共外语课总学时增加到320学时。因此，本册内容相应增加，由原来规定的教学时间80学时改为112学时。每课授课时间为6—8学时。

本册的最后两课(第13课和第14课)是机动课文，不讲授新的语法内容，教师可根据具体教学情况决定取舍。

课文力求题材广泛，并在一定程度上反映当代自然科学的一些新领域。在文体方面适当地注意到多样性，使学生能接触一些科技书刊中常见的各种文体。

在注释和练习中，编选了不少有关日常生活方面的例句，使学生有机会学习一些日常用语。

课文注释中包括难句处理(附有译文)和某些不作专题讲授的语法内容(配有少量练习)。

本册的练习量较大，练习中着重加强了词汇和惯用法方面的基本训练，采用了几种目前国外比较流行的练习方式，教师可根据不同类型的班级及学生的实际水平加以选用。

本册在编写过程中，考虑到学生外语水平提高较快，故选材的起点难度较第一册有所提高。为了与第一册衔接得更好，使用单位在必要时可酌情增添两三篇过渡课文。

本册承南京大学(主审)、上海师范大学、上海师范学院、云南大学、天津师范学院、内蒙古大学、北京大学、兰州大学、吉林大学、吉林师范大学、华南师范学院、延边大学、武汉大学、河北大学、厦门大学、复旦大学等单位审阅，同志们提出了许多宝贵意见，我们对此表示衷心感谢。

编 者

一九七九年二月

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Lesson One

ELECTRONIC COMPUTERS

Many computations in science and engineering cannot be made by man in the ordinary way because they are too long and complicated. This difficulty can be overcome by the use of electronic computers.

- 5 Handling millions of data with the speed of light, the electronic computer is greatly widening man's horizon, enabling him to have a better understanding of the universe.

- Developed in the late 1940's, computers have
10 had a most profound impact on our life today. Already involved in almost every modern activity, the use of computers will become even more widespread, particularly in data processing in such fields as education and medicine.

- 15 In the health field, computers will be used to keep a medical profile on every person in the country from the time of birth, the record being constantly updated on a regional computer. A doctor will send a report on a patient's symptoms to the
20 computer centre and within seconds receive suggestions for treatment based on the symptoms and the patient's history.

【注】自本册起,由已学词汇加 in-, un-, -ly, -ness, -er 等常见前后缀构成的派生词,凡词义、读音无重大改变者,不再列入词汇表。

Some of the most profound changes brought about by the computer will be in education. Here
 25 the machine will greatly enrich the learning process. Computer-based teaching machines will teach students at the rate best suited to each individual. The concept of mass education will give way to the concept of personal tutoring, with the teacher and
 30 the computer working as a team.

The use of computers in industrial and agricultural activities makes it possible to deal with many complicated problems involving large amounts of data and numerous variables and alternatives. In
 35 the field of science and technology the computer has already become an indispensable tool in scientific research.

NEW WORDS

e·lec·tron·ic [iˌlek'trɒnik]	o·ver·come [ˌəʊvə'kʌm] <i>vt.</i>
<i>a.</i> 电子的	克服 (overcame)
com·put·er [kəm'pjʊ:tə] <i>n.</i>	[ˌəʊvə'keɪm], overcome)
计算机	*use [ju:s] <i>n.</i> 使用; 用途
com·pu·ta·tion [ˌkɒmpju- 'teɪʃn] <i>n.</i> 计算	han·dle ['hændl] <i>vt.</i>
en·gi·neer·ing	处理
[ˌendʒɪ'nɪərɪŋ] <i>n.</i> 工程	da·ta ['deɪtə] <i>n. pl.</i> 数据;
or·di·na·ry [ˈɔ:dnri] <i>a.</i>	资料
普通的; 一般的	*wid·en ['waɪdn] <i>vt.</i> 加宽;
5 com·pli·cat·ed	扩大
['kɒmplɪkeɪtɪd] <i>a.</i> 复杂的	ho·ri·zon [hə'reɪzn] <i>n.</i>
	眼界, 视野; 地平线

- *en·a·ble ['i:neɪbl] *vt.* 使能够; 使成为可能; 使实现
- 10 un·der·stand·ing [ˌʌndə'stændɪŋ] *n.* 理解; 认识
- u·ni·verse ['ju:nɪvɜ:s] *n.* 宇宙
- pro·found [prə'faʊnd] *a.* 深刻的; 深远的
- im·pact ['ɪmpækt] *n.* 影响
- al·read·y [ə:l'redi] *ad.* 已经
- 15 in·volve [ɪn'vɒlv] *vt.* 包含; 涉及
- al·most ['ə:l'məʊst] *ad.* 几乎
- ac·tiv·i·ty [æk'tɪvəti] *n.* 活动
- *wide·spread ['waɪdspred] *a.* 广泛的; 普遍的
- par·ti·cu·lar·ly [pə'tɪkjʊləli] *ad.* 特别, 尤其, 格外
- *field *n.* 领域
- pro·cess ['prəʊses] *vt.* 加工, 处理 *n.* 过程
- 20 such *a.* 这样的
pron. 这样的[人或事物]
- ed·u·ca·tion [ˌedʒu'keɪʃn] *n.* 教育
- med·i·cine ['medɪsn] *n.* 医学; 医药
- med·i·cal ['medɪkl] *a.* 医学的; 医疗的
- health [helθ] *n.* 健康
- keep *vt.* 保持; 保存; 记载
(kept, kept)
- 25 pro·file ['prəʊfaɪl] *n.* 传略, 简介; 侧面; 轮廓
- per·son ['pɜ:sn] *n.* 人
- per·son·al ['pɜ:snl] *a.* 个人的; 个别的
- birth [bɜ:θ] *n.* 出生
- rec·ord ['rekɔ:d] *n.* 记录
- up·date [ˌʌp'deɪt] *vt.* 刷新; 修订
- 30 re·gion·al ['ri:dʒənəl] *a.* 地区的
- doc·tor ['dɒktə] *n.* 医生
- pa·tient ['peɪʃnt] *n.* 病人, 患者
- re·port [ri'pɔ:t] *n., vt.* 报告
- symp·tom ['sɪmptəm] *n.* 症状
- 35 with·in [wɪð'in] *prep.* 在...之内
- sug·ges·tion [sə'dʒestʃən] *n.* 建议
- treat·ment ['tri:tment] *n.* 治疗, 处理
- *base *vt.* 把...基于; 根据
- computer·based *a.* 以计算机为基础的

***en·rich** [in'ritʃ] *vt.* 使…

丰富多采

rate *n.* 速率; 进度

suit [su:t] *vt.* 适合

40 **in·di·vid·u·al**

[,indi'vidʒuəl] *n.* 个人

mass *a.* 群众的, 大众的; 大规模的

tu·tor ['tju:tə] *vt.* 辅导

team *n.* 队, 组

***ag·ri·cul·tu·ral**

[,ægri'kʌltʃərəl] *a.* 农业的

a·mount [ə'maʊnt] *n.* 数量

45 **nu·mer·ous** ['nju:mərəs] *a.*
众多的; 许多

al·ter·na·tive

[ə:l'tə:nətiv] *n.* 选择,

取舍

re·search [ri'sə:tʃ] *n.* 研究

PHRASES AND EXPRESSIONS

1. **have a profound impact on** 对…有深远的影响
2. **be involved in** 被卷入; 参与
3. **in the field of** 在…领域, 在…方面
4. **data processing** 数据处理; 数据加工
5. **such ... as** 象…那样的
6. **health field** 医疗卫生领域
7. **medical profile** 病历, 病史记录
8. **from the time of birth** 从一出生起
9. **the computer centre** 计算机中心
10. **be based on** 根据; 以…为基础
11. **mass education** 集体教学
12. **give way to** 让位于
13. **personal tutoring** 个别辅导

NOTES TO THE TEXT

- 5 *the electronic computer is greatly widening man's horizon*
(= *electronic computers are greatly widening man's horizon*)

电子计算机大大地开阔了人们的眼界

这里的定冠词 **the** 用在单数名词前, 代表一类事物, 从其意义上说

与不加冠词的复数名词相仿。又如:

The fly is an insect. (=Flies are insects.)

苍蝇是一种昆虫。

- 9 Developed in the late 1940's, computers have had a most profound impact on our life today.

计算机是二十世纪四十年代末期发展起来的, 它对我们今天的生活有十分深远的影响。

- 1) 1940's 是 1940 的复数形式, 读作 nineteen forties, 指“二十世纪四十年代”, 即 1940 年—1949 年, 注意它的前面有定冠词 the。

in the 1920's 在二十世纪二十年代

in the 1800's 在十九世纪 (读作 in the eighteen hundreds)

three N's 三个 N

- 2) *a most profound impact* = *a very profound impact*

注意这里的 most 用来加强语气, 相当于 very 的意思, 而不是构成形容词的最高级。在这种情况下用不定冠词 a, 不用定冠词 the。

又如:

This is *a most* interesting book.

这是一本很有意思的书。

That is *a most* convincing fact.

那是一个很有说服力的事实。

- 15 In the health field, computers will be used to keep a medical profile on every person in the country from the time of birth, the record being constantly updated on a regional computer.

在医疗卫生领域中, 计算机将用来记录每个人出生以来的健康情况, 并由本地区的计算机随时记录变化情况。

- 26 Computer-based teaching machines will teach students at the rate best suited to each individual.

以计算机为基础的教学机, 将根据每个学生的情况, 以最适当的速度进行教学。

- 29 with the teacher and the computer working as a team

教师与计算机密切配合

“work as a team”, “team work”都是“配合工作”的意思。例如:

They have good team work.

他们配合得很好。

- 31 The use of computers in industrial and agricultural activities makes it possible to deal with many complicated problems involving large amounts of data and numerous variables and alternatives.

计算机在工农业中的应用,使我们有可能对许多复杂问题进行运算,这些运算涉及大量数据以及许多变量和选择方案。

make it possible to deal with ... 中的 it 是形式宾语,真正的宾语是后面的动词不定式短语 to deal with ...; possible 是宾语补语。又如:

Do you think it possible to get the work done in three days?

你认为有可能在三天内完成这项工作吗?

GRAMMAR

I. 分词(二)

II. 分词独立结构

I. 分 词 (二)

分词短语作状语的用法

He sat there, <i>watching TV</i> . He stood at the door, <i>talking with a student</i> . They were going to the fields, <i>carrying spades and hoes</i> .	陪衬动作
<i>Working at Taching</i> , we learned a lot from the oil workers there. <i>Taking a glass rod in his hand</i> , he began to stir the solution.	时间

<i>Led by the Party, we are going from victory to victory.</i>	原因
<i>I fell, striking my head against the wall and cutting it.</i>	结果

说 明

1. 分词短语作状语时, 通常表示伴随的状况或陪衬性动作, 有时也可以表示时间、原因、结果等。
2. 注意分词的逻辑主语与句子的主语相同。
3. 分词的这种用法在书面语言中用得较多。

II. 分词独立结构

The day being fine, we went for a visit to the Western Hills.
天气很好, 我们去西山游览了一次。

The students are learning to work the lathe, a worker standing by and giving them help.

同学们正在学习操作车床, 一位工人师傅在旁边帮助他们。

The temperature rising, the chemical reaction is being speeded up.

随着温度上升, 化学反应正在加快。

He came into the room, his face (being) red with cold.

他走进屋来, 脸冻得通红。

All things (being) considered, this motor is better than that one.

从各方面看, 这台电动机比那一台好。

With the job done, they all went home.

活干完后, 他们都回家了。

With electrons moving through the wire, electricity is generated.

电子通过导线, 产生电流。

说 明

1. 如果分词的逻辑主语与句子的主语不一致, 则分词可以自己带逻辑主语, 构成“名词(或代词)+分词”的结构。这种结构叫做分词独立结构。
2. 分词 *being* 在分词独立结构中往往可以省略。
3. 有时, 分词独立结构可由 *with* 引出。
4. 分词独立结构主要用于书面语言中。

EXERCISES

I. 回答下列问题:

1. Are there any electronic computers in your school?
2. Do you know anything about the electronic computer?
3. Why can't we make some of the computations in science and engineering in the ordinary way?
4. When were the first computers developed?
5. In what fields will the use of computers become even more widespread?
6. What changes will the computer bring about in the fields of medicine and education?

II. 选择适当的词或短语填空, 并把句子译成汉语:

be based on	enable	have a profound
be updated	handle	impact on
deal with	suit	such ... as
be involved in	bring about	give way to
overcome		

1. Those old machines ____ the modern ones.
2. What ____ such a rapid change in its temperature?
3. We must work hard to ____ all the difficulties in our study.
4. I don't know how to ____ these problems.
5. Electronics ____ the development of the radio industry.
6. The use of computers ____ various branches of industry and engineering.
7. His theory ____ long years of scientific research and thousands of experiments.
8. Electronic computers ____ us to bring about a great change in the field of education.
9. ____ branches of mathematics ____ algebra, trigonometry,

geometry and calculus are an indispensable tool in scientific research.

10. Sulphuric acid must be ____ with care.

11. The lab equipment ____ constantly ____ to suit the needs of our research work.

12. This textbook ____ the beginners very well.

III. 选择适当的词或短语代替句中的斜体部分, 并把句子译成汉语:

get over very enriched

give deal with get

1. Space travel has greatly *widened* man's knowledge of the universe.

2. Electronic computers *handle* millions of data with the speed of light.

3. His way of doing it will certainly *bring about* better results.

4. The use of computers will *become* more and more widespread in our everyday life.

5. Good team work will enable us to *overcome* all the difficulties.

6. It is a *most* difficult thing to do.

IV. 按照示例连句, 将其中一句变为分词短语, 并把句子译成汉语:

MODEL: He took up a book from the desk. He went out of the classroom.

Taking up a book from the desk, he went out of the classroom.

1. The students worked at a steel works. The students learned quite a lot about steel-making.

2. The electronic computer handles millions of data in a second. The electronic computer is widely used in science and engineering.

3. The factory is equipped with various kinds of modern