15年 04月 新概念重新整理版本

NEC 4（01-15）

4-01 Finding fossil（n.化石） man

We can read of读到，获悉 things that happened 5,000 years ago in the Near East, where people first learned to write. But there are some parts of the word （where even now people cannot write）.

The only way that they can preserve保护，保存 their history is to recount叙述；描述it as sagas英雄故事—— legends （handed down把…传下去；传给（后代） **from** one generation of storytellers **to** another）.

These legends are useful / because they can tell us something about migrations迁移 of people who lived long ago, but none could write down what they did.

Anthropologists人类学家 wondered where the remote遥远的 ancestors祖先 of the Polynesian岛名 peoples （now living in the Pacific Islands） came from. The sagas of these people explain that some of them came from Indonesia about 2,000 years ago.

But the first people who were like ourselves lived **so** long ago **that** even their sagas, 插入if they had any, are forgotten. So archaeologists考古学家 have **neither** history **nor** legends to help them to find out where the first 'modern men' came from.

Fortunately, however, ancient men made tools of stone, especially flint燧石, because this is easier to shape **than** other kinds.

They **may** also **have** us**ed** wood and skins, but these have rotted（使）腐烂 away彻底腐烂；完全腐败. （may +动词的「现在完成时」结构：通常含有“或许/也许发生……了”这样怀疑或推测的意味。）

Stone does not decay（使）腐烂，腐朽, and so the tools of long time ago have remained 让步状从when尽管 even the bones of the men who made them have disappeared without trace.

1. when引导「让步状语从句」的用法：

Some of them will make trouble / when nothing good is to be expected of it. 即使什么好处都得不到，他们中的一些人也还是要捣乱的。（when引导「让步状语从句」）

4-02 Spare（v.）使免遭伤害;使幸免 that spider

**Why**, you may wonder, **should** spiders be our friends? Because they destroy so many insects昆虫, and insects include some of the greatest重要的；（数量）极大的 enemies of the human race.

Insects would make it impossible for us to live in the world； they would devour狼吞虎咽地吃光；吞没，毁灭 all our crops农作物；产量；庄稼/ and kill our flocks兽群；成群结队 and herds兽群；牧群, if it were not for如果不是因为/由于 the protection （we get from insect-eating animals）.

We owe a lot to为…感激…，把…归功于… the birds and beasts who eat insects / but all of them （put together加在一起） kill only **a fraction**  **of**一小部分，些微；不相连的一块，片段 the number destroyed by spiders.

Moreover, unlike some of the other insect eaters, spiders never do the least harm to us or our belongings.

Spiders are not insects, 插入as many people think像人们想象的那样, nor even nearly related to them. One can tell the difference [almost **at a glance**（望）一眼（就）], for a spider always has eight legs / and insect never more than six.

How many spiders are engaged（adj.）从事 in this work on our behalf（n.）利益，代表? One authority权威 on有关…的、从事…研究的 spiders made a census统计数字；人口普查 of the spiders in a grass field in the south of England, and he estimated that there were more than 2,250,000 in one acre英亩； that is **something like**大约，将近 6,000,000 spiders of different kinds on a football pitch球场.

Spiders are busy（adj.） [for at least half the year] in killing insects. It is impossible to make more than the wildest guess at how many they kill, （make a guess at sth. 猜测某事。make a wild guess at sth.不着边际地猜测某事。）

but they are hungry creatures, not content（adj.）满足的 with only three meals a day.（be content（adj.） with 对…感到满意）

It has been estimated that *the weight of all the insects destroyed by spiders in Britain in one year* would be greater **than** the total weight of all the human beings in the country.

1. Why should…?形式的疑问句，往往用来表达“不能理解”的含义。
2. if it were not for (如果不是因为/由于）是表示与现实不符的「虚拟语气」结构，通常用于表示“因为现实这一特定条件而改变了一切”之意，如:

[If it were not for his wife's money] he’d never be a director. 如果不是他妻子有钱，他永远也不会成为一个董事。

1. do harm to sb./sth. 与 do sb./sth. harm 均表示“对某人/某物造成损害”。
2. something relates to a particular subject 涉及;关于

I had papers （relating to the children） which my wife and I had to sign. 我有一些关于孩子的文件需要我和妻子签字。

→（v.）one thing relates to another相关;有关联

More studies will be required [before we know what the functions of these genes are / and whether they relate to each other]... 要弄清这些基因的功能以及它们彼此之间是否关联，我们还需要开展更多的研究。

→（v.）you can relate to someone产生共鸣;认同

He is unable to relate to other people... 他无法理解他人的想法。

1. Someone who is engaged（adj.） in or engaged on a particular activity，adj.从事…的;忙于…的
2. carry out/ take/ make a census（n.） of……：对…进行一次(数据统计）调査
3. be busy +in doing sth.忙于做某事。

be busy +with sth. 忙于某事

4-03 Matterhorn（n.）阿尔卑斯山峰之一 man

Modern alpinists登山运动员 try to climb mountains by沿、经a route which will give them good sport, and the more difficult it is, the more highly it is regarded.

In the pioneering days在初创时期, however, this was not the case at all.

The early climbers were looking for the easiest way to the top, because the summit顶峰；顶点 was the prize they sought, especially if it had never been attained到达；达到 before.

It is true that during their explorations（n.）探测，勘探 they often faced difficulties and dangers of the most perilous（adj.）危险的，艰险的 nature, 原因状equipped in a manner which would make a modern climber shudder（因担忧、恐惧、厌恶或寒冷）不寒而栗；战栗 **at the thought**一想起,

but they did not go out of their way特意，想尽办法 to court试图获得，追求（关注或声望） such excitement兴奋;激动. They had a single aim, a solitary（adj.）唯一的；独自的 goal —— the top!

It is hard for us to realize nowadays how difficult it was for the pioneers.

Except for除了 one or two places such as Zermatt and Chamonix, which had rapidly become popular, Alpine（adj.）阿尔卑斯山的 village tended to be impoverished使贫困；使贫穷 settlements（n.）移民;开拓;殖民点 （cut off from civilization by the high mountains）.

Such inns小旅馆，客栈 （as there were） were generally dirty and flea-ridden布满跳蚤的； the food simply local cheese奶酪 accompanied by bread often twelve months old, 独立结构/伴随状all washed down with coarse粗劣的；粗糙的 wine.

[Often] a valley **boasted自恃有；自夸；以有…而自豪 no inn at all**根本没有客栈, and climbers found shelter所；避难所 wherever they could ——插入sometimes with the local priest who was usually as poor as his parishioners, sometimes with shepherds牧羊人 or cheese-makers.（sometimes with …，sometimes with …有时同…住在一起，有时则同…住在一起。

）

Invariably（adv.）总是；不变的 the background was the same: dirt（n.） and poverty（n.）贫穷；缺乏, and very uncomfortable. For men （accustomed使习惯 to eating seven-course dinners / and sleeping between fine linen亚麻布制的 sheets被单 at home）, the change to **the Alps**阿尔卑斯山脉 must have very hard indeed（adv.）的确，确实.

1. go out of one’s way 特意，想尽办法，如：

He has gone out of his way to offer suggestions. 他想尽办法提出建议。

He went out of his way to be rude to me . 他故意对我无礼。

1. ridden [ˈrɪ-dn] adj.（通常构成复合词）充满（某种不良事物）的；满是的；受…困扰的

flea跳蚤-ridden a. 布满跳蚤的

4-04 Seeing hands

Several cases have been reported in Russia recently of people who can detect colours with their fingers, and even see through solid and walls.

One case concerns关于，涉及 an eleven-year-old schoolgirl, Vera Petrova, who has normal vision视力，视觉/ but who can also perceive意识到；察觉（尤指不明显之物）,领悟 things 方式状with different parts of her skin, and through solid walls. This ability was first noticed by her father.

One day she came into his office / and happened to put her hands on the door of a locked safe保险柜. Suddenly she asked her father why he kept so many old newspapers 宾补locked away there, and even described the way they were done up捆,包 in bundles捆；一批（同类事物或出售的货品）.

Vera's curious talent was brought to the notice of使…引起某人注意 a scientific research institute协会；（教育、专业等）机构 in the town of Ulyanovsk, near where she lives, and [in April] she was given a series of tests by a special commission委员会 of the Ministry（政府的）部 of Health of the Russian Federal（adj.）联邦（制）的；同盟的 Republic.（federal republic 联邦共和国）

During these tests she was able to read a newspaper through an opaque不透明的 screen / and, stranger still, [方式状by moving her elbow over a child's game of Lotto] she was able to describe the figures and colours printed on it；

and, in another instance例子，实例, wearing stockings长袜 and slippers拖鞋，（室内）便鞋, to make out辨认出 with her foot the outlines外形，轮廓线 and colours of a picture （hidden under a carpet）.

Other experiments showed that her knees and shoulders肩膀 had a similar sensitivity（n.）敏感，感受性.

[During all these tests] Vera was blindfold（adj.）被蒙上眼睛的； and, indeed, [except除…以外 when blindfold] she lacked the ability to perceive注意到,察觉 things 方式状with her skin.

It was also found that although she could perceive things with her fingers / this ability ceased停止;终了;消失 the moment her hands were wet.

1. do sth. up课文中表示“捆”、“包”之意。把…扣/扎好；系好；捆好；扎好；把…收拾好
2. bring … to the notice of sb. 使…引起某人注意

He brought it to my notice. 他提醒我注意那件事。

1. perceive v.注意到，察觉，意识到（尤指不明显之物）

'Precisely what other problems do you perceive?' she asked. “你究竟还发现了什么问题？”她问道。

→you perceive someone or something as doing or being a particular thing, v.看作；视为；认为

Stress is widely perceived as contributing to coronary heart disease... 压力被广泛认为是导致冠心病的一个因素。

4-05 Youth

People are always talking about 'the problem of youth'. If there is one —— 插入which I **take leave（n.）允许，许可 to doubt** ——then it is older people who create it, not the young themselves.

Let us get down认真处理某亊，认真做某事 to（介） fundamentals基本原则；原理 / and agree that the young are **after all**毕竟，终究 human beings —— people （just like their elders）.

There is only one difference **between** an old man **and** a young one: the young man has a glorious宏伟的；壮丽的;光辉灿烂的 future before him / and the old one has a splendid极好的；绝妙的；出色的 future behind him: and maybe **that is where the rub难题；摩擦的动作 is**这就是问题所在.

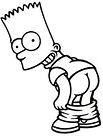
When I was a teenager十三岁到十九岁的少年, I felt that I was just young and uncertain——that I was a new boy in a huge school, and I **would have been**虚拟语气，表示对过去某事的假定推测 very pleased to be regarded as something （**so** interesting **as**像…那样…的 a problem）.

For one thing首先, being a problem gives you a certain identity, and that is one of the things （the young are busily engaged（adj.） in忙于”、“从事于 seeking）.

I find young people exciting使人兴奋的，令人激动的. They have an air of有…模样，呈现…景象 freedom, and they have not a dreary沉郁的；阴沉的 commitment （n.）信奉；忠诚 to（介） mean吝啬的；小气的 ambitions or love of comfort.

They are not anxious焦急的；渴望的 **social climbers**追求更高社会地位的人，向上爬的人, and they have no devotion挚爱,献身,奉献 to（介） material物质的；肉体的 things.

All this seems to me to link them with life, and the origins起源，根源 of things. It's as if they were, **in some sense**在某种意义上，就某种意义上讲/而言, cosmic宇宙的；极广阔的 beings **in** violent and lovely **contrast with**与…相比 us 同位suburban见识不广的，偏狭的，平淡乏味的；传统的 creatures.

All that is in my mind [when I meet a young person]. He may be conceited自负傲慢的, ill-mannered, presumptuous放肆的or fatuous愚昧的, but I do not turn [for protection] to转向，求助于；为…而求助于… dreary沉寂的；阴沉的；令人厌烦的；枯燥的 cliches陈词滥调 （about **respect**（n.）尊重；尊敬 **for** elders） —— as if mere age were a reason for respect.

I accept that we are equals（地位、实力等）相同的人, and I will argue with him, as an equal, if I think he is wrong.

1. take leave to do sth. 冒昧，请原谅；冒昧做某事，擅自做某事

I take leave（n.） to be frank. 恕我直言。（frank [fræŋk] adj. 坦白的，直率的；清楚表明的；明显的）

1. it is…who… 为强调句
2. get down to（介） sth. 认真处理某亊，认真做某事。to为介词，因此其后应使用名词、代词或「动名词」形式。

When we get down to details，the plan seems possible. 当我们认真研究具体细节时，发现这项计划似乎是可行的。

1. that is where the rub is这就是问题所在

表示相似意思的短语还有：

there’s/lies the rub、

therein lies the rub （there-in [ˌðeər-ˈɪn] adv. 其中，在那里；在那点上，在那方面）

that's the rub、

the rub is that、

the rub lies in (doing) sth.等

1. so … as …为固定搭配，表示“像…那样…的”之意。
2. for one thing首先，用来引出某事的原因

I prefer badminton to squash . It's not so tiring for one thing . 与壁球相比，我更喜欢羽毛球。主要是它没有那么累。

for one thing，……(and) for another (thing)，…（一则…，再则…）

1. have a/the/one’s commitment （定to…） 信奉，有…的责任/义务

We have our commitment（n.） （to pay the bills on time） . 我们有如期付账的义务。

1. have a/the devotion to对…具有献身精神。to为介词。devotion n. （对宗教的）虔诚。深爱；挚爱；仰慕。献身；奉献。
2. in contrast with与…相比，介词with也可用to替代（con-trast ['kɒn-trɑ:st] n. 对比，对照，对照物）

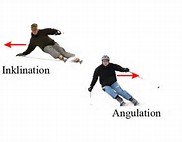
contrast sth with sth 使…与…相对照

1. turn to …for…转向，求助于；为…而求助于…。出于修辞和语气表达的需要，to及其后的宾语的位置，相对比较灵活。

He turned to me for help. 他求我帮忙。

To him / she turns for advice [in critical moments]. 她在关键时刻总是求助于他。

4-06 The sporting spirit

I am always amazed when I hear people saying that sport creates goodwill友善；亲善 between the nations, and that if only **the common peoples** of the world could meet one another at football or cricket板球, they would have no inclination意愿,倾向,爱好 to meet on the battlefield.

Even if即使，尽管，让步状从 one didn't know from concrete具体的，有形的，实在的，混凝土制的 examples the 1936 Olympic Games, for instance that international sporting contests lead to **orgies** **（n.）无节制，放荡 of hatred**（n.）仇恨;憎恶, one could **deduce**推论;推断;演绎 it **from** general principles原则，原理.

Nearly all the sports practised练习,训练,从事 nowadays are competitive（adj.）竞争性的.

You play 目的状to win, and the game **has little meaning**没有什么意义 条件状unless you do your utmost竭尽全力做某事 to win.

On the village green, where you pick up sides随意组队/ and no feeling of local patriotism地方观念，爱国主义 is involved, it is possible to play simply for the fun and exercise:

but as soon as a the question of prestige （n.）威望，声誉 arises, as soon as you feel that you and some larger unit will be disgraced使丢脸;使受辱 if you lose, the most savage野性的；残暴的 combative（adj.）好斗的，斗志旺盛的 instincts （n.）本能,天性 are aroused.

Anyone who has played even in a school football match knows this. At the international level, sport is frankly（adv.）坦率地(讲) mimic warfare（n.）战争，打架；战争状态.

But the significant重要的;有意义的 thing is **not** the behaviour of the players **but** the attitude of the spectators观众，旁观者:

and, behind the spectators,（省略了the attitude） of the nations （who work使逐渐进入某种状态 themselves into furies（n.）狂怒,愤怒,狂暴 over these absurd（adj.）荒谬的;无理性的 contests （n.）比赛；竞赛；搏斗, and seriously认真地;严肃地 believe —— **at any rate**在任何情况下、无论如何 for short periods至少在短期内—— that running, jumping and kicking踢；踹 a ball are tests of national virtue美德;德行;价值;长处.

1. if only(只要）用来引导「条件状语从句」。之后的could meet和would have都是用来表示与现在事实不符的「虚拟语气」结构。
2. orgies of hatred极度仇恨
3. local patriotism 地方感情，地方情绪
4. mimic warfare 模拟战争
5. 动词work在这里被用来表达“使逐渐进入某种状态”之意。表达此含义时，动词work后通常使用 adj . / adv. / prep.或宾语 + adj . / adv. / prep .结构，如：

This Little screw has worked (itself). 那个螺丝钉逐渐松了。（loose [lu:s] adj. 松动的；未固定牢的）

He worked himself into a temper. 他越憋火气越大。

They’re gradually working round to our point of view . 他们逐渐赞同了我们的观点。

1. at any rate表达“在任何情况下”、“无论如何”之意（rate [reɪt] n. 比率;等级）

At any rate "we can go out [when it stops raining]. 不管怎样，只要雨一停我们就可以出去了。

at any rate for short periods 至少在短期内

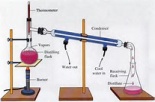
4-07 Bats

Not all sounds made by animals serve as language, and we have only to turn to求助于 that extraordinary（adj.）非常奇特的；令人惊奇的 discovery of echo回声，共鸣-location回声定位能力，回声定位法 in bats 目的状to see a case （in which the voice plays a strictly完全,只,仅限于；严格地,明确地 utilitarian实用的,功利主义的 role）.（play a role in… 在…方面起作用）

目的状To get a full appreciation理解 of what this means / we must turn first to some recent human inventions发明物.

Everyone knows that 条件状if he shouts in the vicinity附近 of a wall or a mountainside, an echo will come back. The further off（空间上）离，距 this solid obstruction障碍物, the longer time will elapse消逝；时间过去 for the return of the echo.

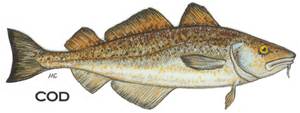
A sound made by tapping轻拍；轻叩 on the hull船体,外壳 of a ship will be reflected反射 from the sea bottom, and [by measuring the time interval （n.）间隔 **between** the taps **and** the receipt（n.）收到；接到 of the echoes], the depth of the sea at that point can be calculated计算，推测.

So was born the echo-sounding回声探测 apparatus仪器, now **in general use**普遍使用 in ships.

Every solid object will reflect a sound, 方式状varying变化；不同 伴随状according to the size and nature本质;性质 of the object. （反射的声音因物体的大小和性质的不同而不同。）

**A shoal（n.）****鱼群 of** fish will do this.

So / it is a comparatively相对地，比较而言地 simple step **from** locating the sea bottom **to** locating **a shoal of** fish.

方式状With experience经验, and with improved改良的 apparatus仪器，器械, it is now possible **not only** to locate a shoal鱼群 **but** to tell if it is herring鲱鱼, cod鳕鱼, or other well-known fish, 方式状by the pattern模式,图案,花样 of its echo.

It has been found that certain bats emit发出，散发 squeaks尖叫声 / and by receiving the echoes, they can locate and **steer**掌（舵）,驾驶 **clear of**回避，避开 obstacles —— or locate flying insects （on which they feed）. （feed on靠……生活，以……为食物）

This echo-location回声定位技术 in bats is often **compared**（adj.） **with**将…同…相比较 radar, the principle原理 of which is similar.

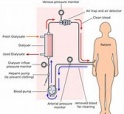
1. for the return of the echo为介词短语，在本句中作“定语”，修饰time。

4-08 Trading standards

宾从Chickens （slaughtered屠宰 in the United States）, claim officials in Brussels, are not fit to grace给…增光；使生辉 European tables. No, say the American: our fowl鸡；家禽 are fine, we simply clean them in a different way.

These days, it is differences in national regulations规章；规则, far more than tariffs关税, that强调句 put sand in the wheels阻碍，阻挠 of trade between rich countries. **It is** not just farmers **who** are complaining.

An electric razor刮面刀 that meets the European Union's safety standards must be approved批准；认可 by American testers before it can be sold in the United States,

and an American-made **dialysis** **（n.）透析,分离 machine** needs the EU's okay before it hits the market in Europe.

插入As it happens, a razor that is safe in Europe is unlikely to electrocute触电致死 Americans.

So, ask businesses on both sides of the Atlantic, why have two lots of tests 条件状从where one would do?

Politicians agree, in principle大体上，在原则上/方面, so America and the EU **have been** try**ing** to reach a deal which would eliminate消除，根除（尤指不需要之物） the need to double-test many products.

They hope to finish in time 目的状for a trade summit between America and the EU on May 28th.

让步状从Although negotiators磋商者,交涉者 are optimistic乐观的, the details are complex enough 结果状从that they may be hard-pressed（adj.）处于困境的，遭受强大压力的 to get a deal at all.

Why? One difficulty is to construct构筑 the agreements.

The Americans would happily reach one accord（n.）协议 on standards for medical devices仪器 / and then hammer out（经长时间或艰难的讨论）达成（一致意见或协定）。锤平；锤成 different pacts合同,条约,公约 covering包括, say, electronic goods and drug manufacturing制造业，工业.

The EU ——following fine continental traditions传统；惯例——wants agreement on general principles, which could be applied to应用,适用,适合于 many types of products / and perhaps extended to other countries.

1. be 表fit {to do sth}.适合做某事
2. put sand in the wheels （of…）阻碍，阻烧。（直译是“把沙子撒入…的车轮里，妨碍行进”）
3. it is/was … that/who(m)… 强调句式

it is…who 也是强调句型

1. approve of 赞成；同意

I approved of the proposal. 我赞成该提案。

1. have been trying为「现在完成进行时态」，用来表明“动作发生在过去，且一直延续到现在”，但更强调“现在仍然在进行”。

4-09 Royal espionage （n.）侦察，间谍活动

Alfred the Great acted as充当/扮作……的角色 his own spy, visiting Danish camps 方式状disguised假扮 as a minstrel吟游歌手.

[In those days] wandering漫游的；闲逛的 minstrels中世纪的吟游歌手 were welcome everywhere. They were not fighting men, and their harp竖琴 was their passport.

Alfred had learned many of their ballads民歌 in his youth, and could vary his programme with acrobatic杂技的 tricks and simple conjuring魔术，戏法.

While Alfred's little army slowly began to gather at Athelney(英国一个小岛), the king himself set out to penetrate打入，渗入 the camp of Guthrum, 同位the commander of the Danish invaders侵略者.

These had settled down驻扎 目的状for the winter at Chippenham(英国一城市): thither向那里 Alfred went.（句首的These 这里指 the Danish invaders。）

He noticed at once that discipline纪律 was slack涣散的: the Danes had the self-confidence of conquerors征服者, and their **security**安全的，保安的 **precautions**（n.）预防，防备 were casual随便的，漫不经心的.

They lived well, on靠……生活 the proceeds所得 of raids劫掠 on neighbouring regions. There they collected women **as well as**既…又…（前半是重点） food and drink, and a life of ease had made them soft.

Alfred stayed in the camp a week before he returned to Athelney（地名）.

The force there assembled was trivial （adj.）微不足道的 compared with the Danish horde （n.）一大群；游牧部落.

But Alfred had deduced推断 ①that the Danes were no longer fit for prolonged长期的；持续很久的 battle: and ②that their commissariat军粮供应；物资供应所 had no organization组织；安排；筹备, but depended on irregular不规则的；不定期的 raids.

So, faced with the Danish advance, Alfred **did** **not** risk冒险(做…) open battle **but** harried骚扰 the enemy.

He was constantly 表on the move, 结果状drawing the Danes after him.

His patrols巡逻队，侦察队 halted使（生长、发展、活动等）停止；使中断；阻止 the raiding parties群；伙: hunger assailed猛烈袭击 the Danish army.

[Now] Alfred began a long series of skirmishes小规模战斗；小冲突——and [within a month] the Danes had surrendered投降.

The episode（n.）一个事件，片断 could reasonably合理的，有道理的 serve as a unique epic史诗 of royal espionage（n.）侦察；间谍活动!

1. thither Alfred went，这里使用了「倒装语序」，以使上下文连接更为紧密。thither意为to that place(向那里），旧用法

thi-ther [ 'ði-ðә] ad.向那里，到那边，向那方

hi-ther [ˈhɪ-ðə(r)] adv. <古>到此处，向此处。

hither and thither 到处，向各处，忽此忽彼

1. on the proceeds of中的on与动词lived搭配使用，构成live on，表示“靠……生活”之意。
2. neighbouring regions前的on与raid搭配使用，用来表示“袭击”之意。raid on 对…的袭击
3. …（重点） as well as …（非重点）：不仅…而且…。
4. be fit for 适应，适合，适宜于。常用来表示资格、能力、条件等适应、适合或适宜于某种目的、某项任务、某种情况等。
5. drawing the Danes after him牵着丹麦人的鼻子而让他们跟着他跑。

4-10 Silicon （n.）硅 valley

Technology trends（n.） may push Silicon Valley back to the future.

Carver Mead, 同位a pioneer in integrated （adj.）一体化的 circuits线路，电路 / and a professor of computer science at the California **Institute协会；学院 of Technology**理工科专科学校, notes强调指出 there are now work-stations that enable engineers to design, test and produce chips [right on their desks], 方式状much （in）the way an editor creates a newsletter(某组织定期发送的)内部通讯，简报 on a Macintosh.

原因状As the time and cost of making a chip drop to a few days and a few hundred dollars, engineers may soon be free to let their imaginations soar without being penalized惩罚 by expensive failures.

Mead（人名） predicts that inventors will be able to perfect使完美 powerful customized定制，定做 chips [over a weekend] at the office —— 结果状①spawning引起，酿成 a new generation of garage start-ups启动，（新企业或工程）开办阶段的/ and ②giving the U.S. a jump on its foreign rivals 目的状in getting new products to market推销 fast.

'We're got more garages车库 with smart people,' Mead observes评论道. 'We really thrive on anarchy（n.）无秩序；无政府状态.' （我们有更多的汽车间，那里有许多聪明人。我们确实是靠这种无政府状态发展起来的）

And on通过，借助于 Asians. Already, orientalshttp://ts1.mm.bing.net/th?id=JN.cRkk%2bJAMMpEQawxGNWTXrA&w=107&h=148&c=7&rs=1&qlt=90&o=4&pid=1.7东亚人 and Asian Americans constitutehttp://ts2.mm.bing.net/th?id=JN.Xynxy2NqDp%2f5zxxF36G2eA&w=92&h=140&c=7&rs=1&qlt=90&o=4&pid=1.7构成；组成 the majority（n.）大多数 of the engineering staffs at many Valley firms. And Chinese, Korean, Filipino and Indian engineers are graduating从…接受学位 **in droves**http://ts3.mm.bing.net/th?id=JN.TSYDUEd9CyiwM08Ril2M5w&w=255&h=155&c=7&rs=1&qlt=90&o=4&pid=1.7（n.）一批批，成群地 from California's colleges.

作为As the heads of next-generation start-ups, these Asian innovators改革者；创新者 can draw on利用 customs and languages 目的状从to forge锻造 tighter links with crucial（adj.）关键性的 Pacific Rim markets.（forge links with… 与…建立联系。）

For instance, Alex Au, a Stanford Ph. D哲学博士. from Hong Kong, has set up a Taiwan factory 目的状to challenge Japan's near（adj.）近似的；差不多的 lock on the memory-chip market.

India-born N.Damodar Reddy's tiny California company reopened an AT&T chip plant工厂 in Kansas City last spring 伴随状with financing（n.）筹措资金；融资 from the state of Missouri.

Before it becomes a retirement（n.）退休 village, Silicon Valley may prove证明是 a classroom for building a global business.

1. garage start-ups 车库起家者，创始于车库的私人公司
2. drove [ drәuv] n.群，移动的人群或大批东西
3. Ph.D指哲学博士 Doctor of Philosophy

4-11 How to grow old衰老 （本课标题意义为“如何安度晚年”）

Some old people are oppressed使心情沉重；忧郁 by the fear of death. In the young在年轻人身上 there is a justification（n.）正当理由 for this feeling.

Young men （who have reason有做某事的理由 to fear that they will be killed in battle） may justifiably（adv.）无可非议地 feel bitter苦的 in the thought that they have cheated of the best things that life has to offer.

But in an old man who has known human joys and sorrows悲痛；悔恨, and has achieved **whatever work it was in him to do**—切他能做的, the fear of death is somewhat 表abject下贱的,卑躬屈节的,蹩脚的 and ignoble不体面的，卑鄙可耻的.

The best way to overcome it —— 插入so at least it seems to me —— is 表to make your interests 宾补gradually wider（adj.） and more impersonal（adj.）超脱个人感情影响的,客观的, until **bit by bit**一点儿一点儿地，逐渐地 the walls of the ego（n.)自我 recede退去，后退, and your life becomes increasingly不断地；渐增地 merged in the universal普遍的，宇宙的 life. （becomes increasingly merged in… 逐渐融于…之中）

An individual human existence（n.）存在;实有 should be like a river —— small at first, narrowly contained within its banks, and rushing猛冲;快速行进 passionately激昂地，热情地 past boulders卵石；巨砾 and over waterfalls瀑布.

[Gradually] the river grows wider, the banks recede, the waters flow more quietly, and in the end, **without any visible break**没有任何视野上的打破，即茫然一片，看不出任何界线, they become merged in the sea, and [painlessly] lose their individual being.

The man who, in old age, can see his life in this way, will not suffer from the fear of death, 原因状从since the things he cares for will continue.

And if, with the decay衰败，衰落 of vitalityhttp://ts4.mm.bing.net/th?id=JN.47CN0Ja80fjJnHwL4aMPRQ&w=240&h=86&c=7&rs=1&qlt=90&o=4&pid=1.7精力,生命力, weariness疲惫感,疲倦 increases, the thought of rest will be 表**not unwelcome**（adj.）未尝/并非不是好事. （有长眠的愿望未尝不是一件好事情）

I should wish虚拟语气，我倒希望… to die 时间状while （省略了I am） still at work, 原因状knowing that others will carry on继续;接着 what I can no longer do, and 原因状content（adj.） in the thought that what was possible has been done.

1. In the young在年轻人身上。介词+表示人的名词或代词，即“in sb.”这样的结构，可以表达“在某人身上”这样的概念。
2. have reason （to do sth）.表示“有做某事的理由”
3. in the thought that…：想到…
4. cheat sb. of sth. 从某人那里骗取某物，从某人那里抢走某物

cheat sb into doing sth. 用欺骗的手段使某人上当而做某事

1. whatever work （it was in him to do）

在in sb. to do这样的结构中，介词in通常用来表达“在（性格/能力）中”这一含义，如：

It’s not in me {to lie} . 我（生来）不会说谎。

She doesn’t have it in her {to break her word}. 她不会不遵守诺言。

1. I should wish ……我倒希望……「虚拟语气」用法，这里用来表示委婉的语气。
2. carry on v.

→youcarry ondoing something继续;接着;坚持

The assistant carried on talking... 助理继续说下去。

→someone is carrying on 喋喋不休;高谈阔论

She was yelling and screaming and carrying on... 她又喊又叫,嘴里说个不停。

→you carry on an activity举行;进行;开展

The consulate will carryon a political dialogue with Indonesia... 领事馆将和印度尼西亚举行政治对话。

He carried on a passionate affair with Mrs Gilbert. 他和吉尔伯特夫人有一段风流韵事。

→someone is carrying on with someone else 私通;与…有不正当关系

[Every week] a fresh scandal emerges （about ministers carrying on with film actresses and call girls）. 每个星期都传出新的丑闻,说某某部长和女演员或是应召女郎胡搞。

4-12 Banks / and their customers

When anyone opens **a current通用的，流行的 account**—个活期户头（即账号） at a bank, he is lending the bank money, repayment偿还，偿付 of which he may demand at any time, **either** in cash现金 **or** by drawing a chequehttp://ts1.mm.bing.net/th?&id=JN.d82qlqDLVqMoqf9UjmiS4g&w=300&h=300&c=0&pid=1.9&rs=0&p=0开一张支票 **in favour of**以……为收款人 another person.

Primarily主要地；根本地, the banker-customer relationship（n.）关系 is that of debtor借方and creditor贷方—— who is which depending on whether the customer's account is **in credit**有存款，有余额/ or is overdrawn（adj.）透支的.

But, in addition to除.…以外还（有） that basically simple concept, the bank and its customer owe a large number of obligations义务 to one another.

Many of these obligations can give rise to引起，导致 problems and complications并发症/ but a bank customer顾客，客户, unlike, say比方说, a buyer of goods, cannot complain that the law is 表loaded（adj.)偏向 against him.

The bank must obey服从，遵守 its customer's instructions指示;命令, and not those of anyone else.

When, for example, a customer first opens an account, he instructs指示；命令 the bank to debit记入借方his account only **in respect**（n.）某方面，点；细节 **of** cheques draw by himself.

He gives the bank specimens样本；范例 of his signature（n.）签名, and there is a very firm rule 同位从that the bank has no right or authority权力；权限 to pay out支付，花费（通常指一大笔钱）,（保单）赔付 a customer's money on a cheques on which its customer's signature has been forged伪造.

It **makes no difference**没有差别 that the forgery may have been 表a very skilful one: the bank must recognize its customer's signature. （that从句中的may have been，即「情态助动词may +动词的完成时」结构，通常用来表示：讲话人认为过去发生的事情从目前看来仍抱有可能性，但把握性不大，往往含有怀疑或推测的意味。）

[For this reason] there is no risk to the customer in **the practice**, adopted采取，采纳 by banks, **of** printing the customer's name on his cheques.

If this facilitates促进；使便利 forgery, it is the bank which will lose, not the customer.

1. open an account 开一个户头（即账号）。
2. draw a cheque 开一张支票
3. in favour of ①以……为收款人， ②主语“赞同/支持（某人或某人的建议、意见等）”，③有利于
4. owe ... to... ①对…负有…，②欠…的…、③把…归功于…
5. loaded [ˈləʊ-dɪd]

→something isloaded in favour of someone.

→it is loaded against them.

对…不利，偏袒…。（不公平地）有…倾向的，有…偏向的，倒向…的

The press is 表loaded in favour of this present government... 新闻界偏袒本届政府。

The article was 表heavily loaded against Morrissey. 文章对莫里西非常不利。

in respect of ①作为、根据

They should give her $ 200 in respect of the work she has done. 他们应付给她200美元，作为她的工作报酬。

②关于、就……而言

He is senior to me in respect of service. 在工作资历方面，他比我深。

4-13 The search for oil

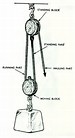
The deepest holes of all are made for oil, and they go down to as much as 25,0000 feet英尺.

But we do not need to send men down 目的状to get the oil out, 方式状as we must [with other mineral矿物的 deposits沉淀物，存款].

The holes are only borings（n.）钻孔, less than a foot in diameter直径，直径长. （直径不到1英尺）

My particular experience is largely in oil, and the search for oil has done more [to improve **deep drilling**深孔钻探] than比……做得更多 any other mining（n.）采矿（业） activity.

When it has been decided where we are going to drill, we put up竖起at the surface an oil derrick井架.

It has to必须 be tall / because it is like a giant **block and tackle**滑轮组，滑车设备, and we have to lower（缓慢地）降下，放下 into the ground / and haul拖，拉 out of the ground 宾great lengths of **drill pipe**钻杆 （which are rotated使转动 by an engine at the top / and are fitted with装配着 a **cutting bit**钻头 at the bottom）.

The geologist地质学家 needs to know what rocks （the drill has reached）, so [**every so often**时常] a sample is obtained 方式状with a **coring bit**取芯钻头. It cuts a clean（形状）规则的，边缘平滑的 cylinder圆柱体 of rock, [from which] can be seen the strata岩层（the drill has been cutting through）.

Once we get down to达到 the oil, it usually flows to the surface / because great pressure, **either** from gas **or** water, is pushing it.

This pressure must be under control, and we control it **by means of**以…方式，靠…手段 the mud which we circulate注入，（使）循环 down the drill pipe.

We endeavour尽力，竭力 to avoid the old, romantic idea of a gusher喷油井, which wastes oil and gas. We want it 宾补to stay down the hole until we can lead it off让…流出 in a controlled manner.

1. as much as 多达、达到
2. tackle ['tæ-kl] n. （吊拉物体用的）索具，滑轮组。用具，装备
3. pipe n.管子，管道
4. every so often作频率状语，表示“时常”之意，

类似的频率状语还有：  
every now and again、  
every now and then、  
every once in a while、  
now and again 等

1. core n. (物体、建筑物或城市的)中心部分
2. get down to ①达到，②认真对待、致力于

It’s no good {shirking the job}；it will have to be got down to. 推卸这份工作是没有用的，你得认真去干。（shirk [ʃɜ:k] vt.& vi. 逃避（工作），偷懒）

1. endeavour to do sth. 你设法/尽力去做某事

4-14 The Butterfly Effect

Beyond two or three days, the world's best weather forecasts （n.）预报，预测 are speculative（adj.）推测的, and [beyond six or seven days] they are worthless无价值的. The Butterfly Effect is the reason.

对于For small pieces of weather —— 插入and to a global forecaster预报员, small can mean thunderstorms大雷雨 and blizzards —— any prediction预测 deteriorates变坏，恶化 rapidly.

Errors and uncertainties multiply大量地增加，做乘法, 方式状cascading瀑布似地落下，倾泻而下 upward向上地 through **a chain of**一连串的,一系列的 turbulent湍流的,动荡的 features特征；特点, from **dust devils**尘旋风 and squallshttp://ts1.mm.bing.net/th?&id=JN.tO77KWQ0HiB98u8EJ5cTDA&w=300&h=300&c=0&pid=1.9&rs=0&p=0暴风up to continent-size eddies（n.）漩涡 that only satellites人造卫星 can see.

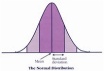
The modern weather models work起作用 方式状with **a grid格子 of** points of the order（n.）顺序；次序 of sixty miles apart相隔，相距, and **even so**即便如此, some starting data has to be guessed, 原因状从since **ground stations**地面工作站 and satellites cannot see everywhere.

But suppose the earth **could**虚拟 be covered with sensors传感器 spaced以一定间隔排列 one foot apart, 方式状rising at one-foot intervals（n.）间隔,区间 all the way一路上，一直 to the top of the atmosphere.

Suppose every sensor gives perfectly accurate（adj.）精确的 readings of temperature, pressure, humidityhttp://ts2.mm.bing.net/th?id=JN.zzy6WDDgcpwjW07FJ35GTg&w=248&h=155&c=7&rs=1&qlt=90&o=4&pid=1.7湿度, and any other quantity （a meteorologisthttp://ts1.mm.bing.net/th?&id=JN.a4y6UX%2b8NNgZs/MgT%2bdz6A&w=300&h=300&c=0&pid=1.9&rs=0&p=0气象学家 **would** want）.

[Precisely at noon] an infinitely powerful computer takes all the data / and calculates what will happen at each point at 12.01, then 1202, then 12.03...

The computer will still be unable to predict whether Princeton, New Jersey新泽西州, will have sun or rain on a day one month away.

[At noon] the spaces between the sensors will hide fluctuations（n.）起伏，波动 that the computer will not know about, 同位语tiny deviations（n.）偏差 from the average. （任何偏平均值的变化。）

[By 12.01], those fluctuations起伏 will already have created small errors （one foot away）. （在1英尺远的地方造成偏差。） Soon the errors will have multiplied to the ten-foot scale规模,程度, **and so on**等等；诸如此类；依此类推 up to the size of the globe.

1. devil ['de-vl] n.撒旦，魔鬼；恶魔。淘气鬼；冒失鬼。

4-15 Secrecy in industry

Two factors weigh heavily against不利于 the effectiveness of scientific research in industry. One is the general atmosphere of secrecy保密能力；秘密（状态） in which / it is carried out执行；进行, the other the lack of freedom of the individual research worker.

In **so far as**就…而言 any inquiry（n.）调查,询问;打听 is a secret one, it naturally limits all those engaged in从事 carrying it out from限制…不使… effective有效的 contact with their fellow scientists either in other countries or in universities（综合性）大学, or even, often enough, in other departments of the same firm.

The degree of secrecy naturally varies considerably相当，非常，颇. Some of the bigger firms are engaged（adj.） in researches （which are of具有 **such** general and fundamental基本的，根本的 nature本质；性质 **that** it is a positive确实的，千真万确的 advantage to them {实主not to keep them secret}）. （保密程度自然差别很大。某些大公司进行的研究属于一般和基础的研究，因此不保密对他们才有利。）

[Yet] a great many processes （depending on such research） are sought for探索 方式状**with complete secrecy**极端秘密地 until **the stage （at** which patentshttp://ts2.mm.bing.net/th?id=JN.V7OnbpbjpkNaWQHVgnYuAA&w=93&h=142&c=7&rs=1&qlt=90&o=4&pid=1.7专利 can be taken out）. （at the stage在这一阶段）

Even more processes are never patented得到专利权 at all / but kept as secret processes.

This applies particularly to适用于 chemical industries, where **chance discoveries**偶然发现的机会play a much larger part than they do in physical and mechanical industries.

[Sometimes] the secrecy goes to such an extent 结果状从that the whole nature of the research cannot be mentioned.

Many firms, for instance, **have** great **difficulty in** obtaining technical or scientific books from libraries / because they are unwilling to have their names entered 时间状as having taken out **such and such a book**某某书, 原因状for fear the agents间谍 of other firms should be able to trace the kind of research （they are likely to be undertaking承担，从事，着手做）.

1. weigh against不利于

weigh v.对…有(重大)影响

1. as far as = so far as就…而言

但同介词in连用表达同一概念时，只能使用in so far as（在…的范围内）这一形式，其语气比单独使用so far as或as far as要强。

1. to limit…from …表达“限制…不使…”之意。
2. be engaged in… 表示“从事”，介词in后需使用名词、代词或「动名词」形式。engaged [ɪn-ˈgeɪ-dʒd] ADJ从事…的；忙于…的
3. be of具有，如：

Mary is of a such gentle nature. 玛莉有着那样温柔的性格。

1. something such as a rule or a remarkapplies toa person or in a situation 适用于，适合于…

The convention does not apply to us... 这条惯例对我们不适用。

→A name that is applied to someone or something 将（名字等）用于

Connell said a new medical term should be applied to Berg's actions. He calls it 'medicide'. 康奈尔说，应该用一个新的医学名词描述伯格的行为。他称之为“医生协助自杀”。

→you apply something to a surface涂抹；敷用；施用

The right thing would be to apply direct pressure to the wound... 正确的做法是直接按住伤口。

Applying the dye can be messy, particularly on long hair. 涂抹染发剂可能会搞得一团糟，特别是长发。

→you apply yourself to something / or apply your mind to something 使（自己）全神贯注于；使（注意力等）集中于

Faulks has applied himself to this task with considerable energy... 福克斯为这项任务倾注了大量精力。

1. such an extent that… 到了这样的程度，以至于…。这里是such … that …结构。
2. have difficulty in ……：在…方面有困难。
3. to have their names entered 使用了to have sth. done(过去分词)这样的“使役结构”。在这一结构中，sth. done在句子中起“复合宾语”的作用。「过去分词」用来表明sth.所处的状态。
4. take out v.取出，把…带出去；邀请（某人）外出，带…出去（吃饭、看电影等）
5. such and such a book某某书。在英语中，想不指名地提到某个人时，常说，如：Mr. so and so，即“某某先生”。想不具体地说出某人或某事的名字或特征时，常用：such and such a girl (或 place、date)等。