

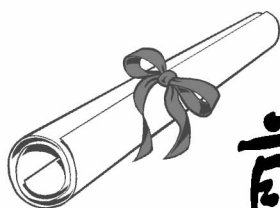
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前言

新课程标准改革的核心就是要力求从根本上改革我国人才的智能结构和人才的培养模式。这种变革要求我们的教学应以教会学生学会学习、学会运用为主要任务。因此,我们的教材和教辅书籍就必须为学生和教师创设一种具有创新的可能和适应人才发展的平台和空间。为此,本书的全体编写人员依照《三点一测丛书》的编写原则和理念,结合高中教学和新课程标准改革的实际,从探究目标、探究指导和探究综合训练几个方面为高中师生提供了一种有的放矢向课堂以外延伸、多角度学用结合的教参和自学指导。本书凸显以下特色:

* 就“探究目标”而言,我们首先从整体上对学生提出了各单元应该或必须达到的知识和能力要求,再用日常对话形式引导学生在各种情景中获得短语巧用和词汇拓展能力。如:在 Unit1 中,编者围绕 believe, believe in, have belief in 等不同形式编辑对话,为学生提供在特定情况下正确使用相关词汇和短语的范例。

* “探究指导”的重点放在对各单元难点、重点和语言点的解析与示例方面,在此基础上,除了全面、准确地解答教材中的各类习题之外,我们也注意用国内外刚刚发生或正在发生的大事来指导学生形成正确的情感、态度 and 价值观。如:SARS, tsunami(海啸)等灾难给我们的启示等。

* “探究综合训练”注重以“三个互动”的方式——师生互动、同学间互动、知识的进步与社会发展的互动——来构建探究性能力培养模式。充分利用因特网上的相关题材设置激发学生主动向课堂外延伸,积极参与社会实践的热情。

* 为各单元精心设计了形式多样,紧扣教材的“单元测试题”,确保学用结合到位。

* 难易适度、“三点”突出的模块中期和模块结业测试可让师生从题海中放心地解脱出来。

我们可以自豪地说,本书既是编者多年教学经验的总结,也是全体编写人员智慧的结晶,更是我们近年来教法改革和学法研究的具体体现。

无边的学海不断地警示着全体编写人员,我们殷切期待广大读者对丛书提出宝贵意见(恳请致函 sdyccs@ 263. net)。我们坚信,有我们的共同努力和不懈探索,《三点一测丛书》一定会成为你学习上的好帮手。

编 者



Unit 1 Great scientists



探究目标

- * Get to know as much information about great scientists as possible.
- * Be able to talk about some scientific research on infectious diseases.
- * Study the Past Participle used as the predicative & attribute.
- * Learn to write a report about Cholera, SARS or some other disasters.

一、重点词汇及短语

theory construction characteristic view absorb expose analyze defeat attend expose
cure blame **believe** handle announce contribute examine conclude scientific valuable
positive backward complete cautious

put forward make a conclusion in addition link...to... be strict with make sense
point of view lead to apart from

二、词汇拓展引领

1. — Do you still **believe what he said** ?
— Well, I never **have much belief in** his honesty.
2. — Do you **believe him** to be here ?
— **Believe it or not**, we were left waiting in the rain for two hours.
3. — Why do you **believe in him** ?
— Because **I believe in his good character**.
4. — She came to work in an evening dress ! Would you **believe it** ?
— My God. It's impossible.
5. — Have they arrived yet ?
— Yes, I **believe so**.

三、短语巧用

Suppose you are going to do a chemistry experiment on some flammable(可燃的) gas in the lab, but you are not too sure about the preparation, the rules or how to make a report on the experiment. Now, fill in the blanks in the dialogue with the following phrases.

put forward; lead to; link to; apart from; point of view
be strict with; make sense; make a conclusion; in addition

Tom: Mr. Snow, could you tell us what items we should pay attention to before going to the lab ?

Mr. Snow: You should keep your purpose of the experiment in mind, and (1) _____, you must (2) _____ yourself. Don't make loud noise or run after each other in the lab.

Jack: What's the key point of doing such a dangerous experiment ?

Mr. Snow: The most important point is that you must (3) _____ the tube tightly and never get the pipe (4) _____ the tube until you finish the experiment.

Tom: Can you (5) _____ of a good report on the experiment ?

Mr. Snow: Yes, as a good report, only to (6) _____ about the experiment is not enough. You should

try to (7) _____ your own (8) _____ leading to some improvement to the experiment in the future. Now, are you ready?

Tom and Jack: Yes, thank you. Let's go!

四、语法要点

1. 过去分词作定语有两个特征:

(1)与它所限定的名词存在逻辑上的动宾关系。

e. g. a frightened boy = a boy who was frightened

(2)表示分词本身的动作已经完成。

e. g. the developed country = the country which has already been developed

注意:1)只有及物动词才有过去分词形式作定语。

e. g. We could hear **raised** voices coming from the bar. (raise 与 voices 是逻辑上的动宾关系。)

Nothing is more attractive than a **rising** sun. (rise 是不及物动词,与 sun 只能是逻辑上的主谓关系。)

2)有部分动词的过去分词有规则和不规则两种形式,一般来说,不规则的过去分词形式不能作定语。

e. g. learn —learned light —lighted burn —burned dream —dreamed 等
—learnt —lit —burnt —dreamt

e. g. a learned author (学识渊博的作者) a lighted candle (已点燃的蜡烛)

a burned match (燃过的火柴) a dreamed place (理想的地方)

2. 过去分词作表语:

1)注意过去分词作表语与被动语态的区别。过去分词作表语是表示主语所处的状态,而被动语态则强调过去分词与主语的动宾关系。

e. g. ①The novel is well written. 句中的“is...written”是系表结构,说明小说的特点。

②The novel was written by Lu Xun. 句中的“was written”为被动语态,强调小说与动词“写”之间的动宾关系。

2)表示“变化”和“感觉”之类的准系动词同样可以用过去分词作表语。

e. g. He **felt** deeply moved and **became** inspired when he got the news.

语法随堂练习

1. — How long have you _____ your wife?

— Almost ten years.

A. got married to B. married C. been married with D. been married to

2. — Your shirt needs _____, Jack.

— Yes, it does. I'm going to have it _____ tomorrow.

A. washing; to be washed B. to wash; washed

C. washing; washed D. washing; wash

3. Have you checked all the machines _____ to Shanghai next week?

A. to be sent B. sent C. sending D. being sent

4. After watching the _____ football match, they got very _____.

A. exciting; excited B. exciting; exciting

C. excited; exciting D. excited; excited

5. _____ in white, the girl looks much more beautiful.

A. Wearing B. Dressed C. Dressing D. Worn

6. The lady said she would buy a gift for her daughter with the _____.

A. 20 dollars remained B. 20 dollars to remain



- C. remained 20 dollars
D. remaining 20 dollars
7. The little girl was too _____ at the _____ picture.
A. frightening; frightening
B. frightened; frightened
C. frightening; frightened
D. frightened; frightening
8. The camera isn't _____. It still _____ where I _____ it a moment ago.
A. missed; lies; lay
B. missing; lies; laid
C. gone; lays; lay
D. lost; lays; lay
9. Hearing the news that their father would get back soon, the two boys felt _____.
A. worrying
B. less worried
C. less worrying
D. very worrying
10. Taking a _____ candle in hand, the girl felt a little bit _____.
A. lighted; encouraging
B. lit; encouraged
C. lit; encouraged
D. lighted; encouraged

探究指导



Warming up

1. **Archimedes**, Ancient Greek (287~212), a mathematician found that if you put an object into water, the water pushes the object up. The force of the water pushing it up is the same as the weight of the object.
2. **Charles Darwin**, British (1808~1882), wrote the book *The Origin of Species*, in which he explained how plants and animals had changed over time to fit in with the changing environment.
3. **Thomas Newcomen**, British (1663~1739), improved the steam pump built by Thomas Savery in 1698 into a steam engine in 1772, and then turned it into modern steam engine used on the railways in the 1770s.
4. **Gregor Mendel**, Czech (1822~1884), concentrated on crossing fertilizing pea plants and analyzing the result: The first is that inheritance factors do not combine but are passed to the next generation intact. Second, each partner gives half the inherited(遗传) factors to the young. Third, some of these factors show up in the off-springs.
5. **Marie Curie**, Polish and French (1867~1934), worked on radioactivity and her discovery of radium meant that she began a new scientific area of research, because of which she became the first woman to receive a Nobel Prize.
6. **Thomas Edison**, American (1847~1931), an inventor of many electrical devices, designed a system for providing New York with electricity from a central power station.
7. **Leonardo Da Vinci**, Italian (1452~1519), a famous artist, used to study dead people in order to make his paintings as accurate(精确) as possible.
8. **Sir Humphry Davy**, British (1778~1829), did research into different gases and discovered the medicinal value of Laughing Gas as an anesthetic and developed a safety lamp for miners in 1815.
9. **Zhang Heng**, Chinese (79~139), invented the first seismograph to indicate the direction of an earthquake. When an earthquake occurred, a ball fell out of the dragon's mouth, making a noise.
10. **Stephen Hawking**, British (1942~), has worked in astronomy and studied black holes in space. He has shown that black holes do not only absorb everything around them, but throw out matter as well.

characteristic: 1. *n.* 特征、特性

e. g. A characteristic of this species is the blue stripe on its back. 这个物种的特性之一就是背上的蓝色斑纹。

2. *adj.* 有特色的

e. g. The flint walls are characteristic of the local architecture. 众多的燧石墙形成了当地的建筑特色。



Pre - reading

What does “great” mean in the topic of this unit ?

It is the compact (严谨的) attitude in scientific research that makes a scientist **great**. For example, if we want to **examine** a new scientific idea, we should firstly find what the problem might be and then make up a question to the problem. Secondly, we will try to think of one or more methods to solve the problem, collect as many results as possible of the methods we have put forward, analyze the results carefully and repeat the process if necessary. Finally, we must make a conclusion as a contribution to the world.

examine *vt.* 仔细检查

e. g. After examining the evidence, I can find no truth in these claims.

在仔细检查证据之后,我否定了起诉的真实性。

examine sth. for

e. g. The police will have to examine the weapon for fingerprints.

警察不得不通过检查武器获得指纹。

examine sb. on

e. g. You will be examined on Chinese history. 你将接受中国历史方面的考察。

1. Listen to your teacher's reading carefully, and try to fill in the blanks.

About Dr. Snow

In 1854 a cholera epidemic raged across Europe. The onset (攻击) of the disease is sudden and death can result in as little as a week. In London, one devastating outbreak at the beginning of September claimed the lives of over 500 people in just ten days. The search for the cure and the cause was fast and furious (疯狂的), but no one seemed able to stop the insidious (阴险的) epidemic. That is until one man with a hypothesis (假设) successfully traced the source of infection. Dr. John Snow had observed cholera first-hand in 1831 as an apprentice surgeon, but it was only 17 years later, in 1848~1849, that he developed a new theory for the mechanism of cholera transmission, contrary to the prevailing (盛行的) belief.

1) *Rage across* might mean _____ in this passage.

2) How do you know the disease is sudden and death can result in as little as a week ?

3) When Dr. John Snow observed cholera in 1831, he was just an _____.

4) From the passage, we know his new theory was _____ the common belief.

2. Divide the class into four groups and make a forum according to the following information and try to get the answers to the two questions in common.

Just over five months ago, SARS started to spread around the world. Research teams in Hong Kong and Shen Zhen detected several viruses that were closely related to the SARS virus in animals taken from a southern Chinese market that was selling wild animals.

Questions: 1. What do you think our battle against SARS actually is ?

2. What do you think people should do when they find SARS virus is closely related to some wild animals?

(以上三题参考答案见“习题答案、解析及听力材料”部分)



课文注释及教材练习答案



Reading



(P2)

课文注释

1. John Snow was a well-known doctor in London—so famous, indeed, that he attended Queen Victoria to ease the birth of her babies. 约翰·斯诺是伦敦一位著名的医生——他确实很负盛名,以致维多利亚女王生孩子时都是他去照料,帮助她顺利分娩的。

(1) attend; look after 意为“照料”

e. g. Would you like to attend my grandmother while I'm out?

(2) ease *vt.* & *vi.* make easier or better 意为“舒缓,安慰”。

e. g. ① The new drug designed to ease childbirth for women.

② It would ease my mind to know you had arrived safely.

2. But he became inspired when he thought about helping ordinary people exposed to cholera. 但是当他想到帮助得了霍乱的普通患者,他就感到振奋。

exposed to; in a dangerous position of... 意为“完全暴露于……,处于……危险情形中”,作 people 的后置定语。

e. g. It's very harmful to be exposed to these viruses without any protection.

毫无保护地暴露于病毒之中是非常有害的。

3. Neither its cause, nor its cure was understood. 既不知道病因,也不了解治愈的方法。

neither... nor... 是等立连词词组,是 either... or 的否定形式。这类连词词组要注意以下几点:

1) 当连接两个并列主语时,与 both... and... 有别。采用主语就近的原则。

e. g. Either you or I am going to clean the sitting room.

2) neither 和 nor 作为否定词以强调的形式位于句首时,或表示“也不”这一概念时,谓语部分应为局部倒装形式。

e. g. ① — I have never been to China. Have you ever been there?

— No, neither have I.

② Neither could I tell you the truth, nor will I tell you anything about it.

3) 并列连词所连接的两个并列成分应为两个对等的结构形式。

e. g. She was expressionless, neither laughing nor crying.

4. The second suggested that people absorbed this disease into their bodies with their meals. 第二种看法是人们在吃饭时把这种病毒引入体内的。

5. To prevent this from happening again, John Snow suggested that the source of all water supplies be examined and new methods of dealing with polluted water be found. 为防止这种情况再度发生,约翰·斯诺建议,所有水源都要经过检测,而且要寻找处理污水的新方法。

(1) suggest 的用法

1) to show one's idea indirectly 意为“暗示,间接表明”

2) to advise 意为“建议”,其宾语从句及相关的同位语从句、主语从句中的谓语动词为 should 加原形动词的形式,而且 should 可以省略。

e. g. ① He nodded with a smile and it suggested that he was satisfied with our work.

② She suggested that we (should) write that into the contract.

③ He rejected my suggestion that we (should) invite Jack.

④ It's a wonderful suggestion that they (should) stay at home.

(2) absorb vt. 的用法

1) 指使被吸收者失去其特征,或致使其特征不复存在。

e. g. Large nations shouldn't absorb smaller ones. 大国不应吞并小国。

2) 承受,承担

e. g. We will not absorb these charges. 我们不能承担这些费用。

3) 吸取(知识),占有

e. g. ① This job absorbs all of my time. 这项工作占去了我的全部时间。

② I was so interested in these new ideas that I absorbed them without thinking.

我对这些新的观念十分感兴趣,不假思索地就全盘接受了。

4) be absorbed in 被吸引,专心于

e. g. The writer was so absorbed in his writing that he forgot to tap the ashes from his cigar.

作家全神贯注地进行写作,忘了弹去雪茄烟上的烟灰。

5) absorb... into; to take... in as part of itself 意为“吸收”“吞并”

e. g. The big company has gradually absorbed these small companies into its own organization.

这家大公司逐步的吞并了这些小公司。

6. ... the cholera outbreak was so severe that more than 500 people had died in 10 days. ... 霍乱的爆发是如此的严重致使在 10 天之内就死了 500 多人。

(1) severe; very bad, 与 excellent 一样是“极限”性形容词,不能再用 very 修饰。

(2) so/such... that...

注意: 1) so... that... 与 such... that... 限定可数名词时冠词的位置。

e. g. It is such an interesting story that we can't help laughing.

It is so interesting a story that we can't help laughing.

2) 在这种结构中,修饰不可数名词只能用 such 限定。

e. g. He made such rapid progress that he was always praised by us all.

7. It seemed the water was to blame. 看来水是罪魁祸首。

(1) be + 动词不定式,可表示该做或不该做的事情,相当于 must, should, ought to 等。

e. g. No one is to leave this building without the permission of the police.

没有警察允许谁也不准离开这栋楼。

(2) be to blame “应该受到诅咒”是一种主动形式表被动意义的习惯用法。

8. In addition, he found two other deaths in another part of London that were linked to the Broad Street outbreak. 此外,他还发现伦敦另一个地区有两个死亡病例都与宽街暴发的霍乱有关联。

(1) in addition(to); besides 意为“此外(还)”。

e. g. ① In addition, the course also provides practical experience.

② We saw a Mickey Mouse cartoon in addition to the cowboy movie.

我们除了西部牛仔片之外还看了一个米老鼠动画片。

(2) link... to(with)...; to connect two or more things together “把……与……连接(联系)起来”。

e. g. Fingerprints linked the suspect to the crime. 指纹证实了嫌疑犯的犯罪行为。

9. A woman, who had moved away from Broad Street, liked the water so much that she had had it delivered from the pump to her home every day. 有一位妇女是从宽街搬来的,她特别喜欢那里的水,每天都派人从水泵处打水运到她家里。

delivered 是过去分词作宾语补足语,与 it (the water) 是逻辑上的动宾关系。

e. g. You must have the papers delivered to every office as soon as possible.

你必须尽快把报纸分发到每个办公室。



Answers to the exercises

【1】

Scientific Report by John Snow	
The problem	Nobody knew the cause of the serious disease of cholera
The cause	Idea 1: strange cloud in the air that attacked victims
	Idea 2: people absorbed the disease with their meals
The method	Collect data from the next cholera attack to test theories Try to prove which method was correct
The results	He found the cause of cholera was polluted water
Idea 1 or 2? Why	Idea 2: because the data showed a connection with the water
The conclusion	John Snow was able to defeat cholera once its cause was known

【2】 1. Two diseases are similar today. They are SARS and AIDS. Because they are both very serious, have an unknown cause and need public health care to solve them.

2. By collecting information, he found an outbreak that was clearly related to cholera and was able to tie cases outside the area to the polluted water.

3. No. The map helped John Snow organize his ideas, identify the households that had or hadn't deaths and show him the evidence clearly pointed to the polluted water.



【Discovering useful words and expressions】

Answers to the exercises

1. examined, put forward, exposed, cure, immediately, look into, announced, instruct, valuable

2. 略

3. 1) Don't *make faces* in class.

2) We all hope to *make friends* with you.

3) The best way to *make money* is to study hard and get a good job.

4) What you could do is to *make your way to* the restaurant on foot.

5) It will take you a lot of money to *make phone calls* abroad.

6) *Make sure* if you could make yourself understood during a speech.

7) Never *make up your mind* about buying something before you see them with your own eyes.

8) It would look tidier if you will *make the bed* before you go.

9) It is polite to *make room for* an old lady in the meeting room.

【Discovering useful structures】

Answers to the exercises

【1】

The Past Participles used as Attribute

- 1) John Snow told the *astonished* people in Broad Street.
- 2) Dr. John Snow was a *well-known* doctor in London.

The Past Participles used as Predicative

- 1) Snow got *interested* in the two theories.
- 2) Neither its cause, nor its cure was *understood*.

【2】

Past Participle as an Attribute	Past Participle as the Predicative
6. astonished children	1. people who were terrified
7. a broken vase	2. seats which were reserved
8. a closed door	3. water that is polluted
9. the tired audience	4. a room that is crowded
10. a trapped animal	5. a winner who was pleased

- 【3】 1. blamed 2. tired 3. disappointed 4. shocked 5. excited 6. infected

Using Language

【Reading and writing】

课文注释

1. ... all his mathematical calculation led to the same conclusion.所有的数学运算都得到相同的结论。

lead to 中的“to”是介词,要求跟名词或动名词作宾语。

类似的短语还有 contribute to; stick to; get used to; refer to; according to 等。

2. Only if you put the sun there did the movements of the other planets in the sky make sense. 只有当你把太阳放在中心位置上,太空中其他行星的运动才能说得清楚。

(1) 当副词“only”与宾语或状语一起位于句首时,主句的谓语部分要局部倒装,但与主语一起位于句首时,谓语部分无须倒装。

- e. g. ①Only after I finished my own work could I have some spare time to help him. (only+状语)
 ②Only three of them did I see on the playground this afternoon. (only+宾语)
 ③Only Mr. Smith can answer such a strange question. (only+主语)

(2)make sense; make sth. easier or more reasonable to understand 讲得通,合理

e. g. Read this and tell me if it makes sense.

(3)make sense of...: to understand sth. complicated 弄懂……的意见,理解

e. g. Can you make sense of this article at all?

3. They believed God had made the world and for that reason the earth was special and must be the center of the solar system. 他们认为世界是上帝创造的,因此地球就具有特殊的意义,它必定要成为太阳系的中心。

(1)believe 的用法

1) 相信某人或某人所说的话

e. g. Do you believe what he said last night?

(2)believe in... 信任,信仰

e. g. It's amazing that many people believe in ghosts.

(3)have(hold) belief in... 对……坚信不移

e. g. If you are selling, you have to have genuine belief in the product.

如果你是做销售工作的,你必须对你销售的产品充满信心。

(2) must be 由此掌握“绝对判断”的四种形式

1) 对现在动作或状态的绝对肯定判断: must + 原形动词

e. g. He must be a teacher according to the way he speaks.

2) 对现在动作或状态的绝对否定判断 can't + 原形动词

e. g. He can't be still alive when falling off from such a high building.

3) 对过去动作或状态的绝对肯定判断 must + 完成式

e. g. It must have rained last night, because the ground is still wet now.

4) 对过去动作或状态的绝对否定判断 can't (couldn't) + 完成式

e. g. You can't (couldn't) have met him at that time, because he was in my office then.

4. Others appeared brighter at times and less bright at others.

其他一些的行星有时会显得亮一些,有时会显得暗一些。

(1) 句首的 others 是指代 other planets; 句末的 others 是指代 other times.

(2) at times; sometimes, but not very often

e. g. At times I wonder if it's worth all the effort.

5. ... with the planets going round it and only the moon still going round the earth.

……行星围绕着它(太阳)转,只有地球仍然绕着地球转。

with + 独立主格结构作状语的几种常见形式:

1) with + 名词 + 现在分词 e. g. He stepped out with a dog following him.

2) with + 名词 + 过去分词 e. g. The man was found, with his hands tied to a chair.

3) with + 名词 + 介词短语 e. g. She walked into our classroom with a book under her arm.

6. He didn't want to be attacked by the Christian Church, so he only published it as he lay dying in 1543. 他不想遭到基督教教会的攻击,所以他只是在 1543 年临终前才把它公布出来。

lay 是 lie(躺)的过去式, dying 是瞬间动词的现在分词作状语,表示即将死去的状态。

Answers to Exercise 1 (2, 3 略)

Before Copernicus' theory

Showing Copernicus' theory

A diagram showing the solar system with the earth at its center	A diagram showing the solar system with the sun at its center
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课文翻译

【Reading】

约翰·斯诺击败“霍乱魔王”

约翰·斯诺曾经是伦敦一位著名的医生——他的确太负盛名了,以至于维多利亚女王生孩子时都是他去照料,帮助她顺利分娩。但当他一想到要帮助患病的普通老百姓,特别是那些得了霍乱的患者时,他就感到很振奋。霍乱在当时是最致命的疾病。人们既不知道它的病源,也不了解它的治疗方法。每次暴发霍乱时,就有大批惊慌失措的老百姓病死。约翰·斯诺想要用他的知识来帮助解决这个问题。他知道,在找到病源之前,疫情是无法控制的。

对霍乱致人于死的原因,当时有两种看法。斯诺对这两种推测都很感兴趣。一种看法是霍乱病毒在空气中会无缘无故地繁殖,像一股危险的气体到处飘浮,直到找到病毒的受害者为止。第二种看法是人们是在吃饭的时候把这种病毒带入体内的,病从胃里发作而迅速殃及全身,患者就会很快地死去。

斯诺相信第二种说法,但是需要证明它是正确的。因此,当 1854 年伦敦再次暴发霍乱的时候,约翰·斯诺就着手准备对这两种说法做些检测。当霍乱在贫民区迅速蔓延的时候,约翰·斯诺就开始收集资料。他发现霍乱在两条街道上流行得特别严重,在 10 天之内就死去了 500 多人。他决心要查明其

原因。他在一张地图上标明了每一个死者住的地方。下面就是这张地图:(略)

注:“—”代表一个死亡病例;“PH”:酒馆;“30,31……”:门牌号码

这张地图提供了一条说明霍乱起因的很有价值的线索。许多死者是住在宽街的水泵附近(特别是这条街上的16、37、38、40号)。约翰·斯诺还发现有些住户(如宽街上20号和21号以及剑桥街上的8号和9号)却无人死亡。他进一步地了解到,这些住户的家人都在剑桥街7号的酒馆里打工。酒馆让他们免费饮用啤酒,因此他们没有喝从宽街水泵抽上来的水。看来霍乱的流行要归罪于饮用水了。

然后,约翰·斯诺调查了这两条街的水源情况。他发现,水是从河里来的,而河水被伦敦排出的脏水污染了。约翰·斯诺马上叫宽街上惊慌失措的老百姓拆掉水泵把手,这样,水泵就用不成了。

不久,疫情就开始得到缓解。约翰·斯诺在此之前就曾经表明,霍乱是由病菌而不是由气团传播的。除此之外,他发现在伦敦的另一个地方有两个死亡的病例与宽街暴发的霍乱有关联。有一位妇女是从宽街搬过来的,她特别喜欢那里的水,每天都要派人从水泵处打水运到家里来。她和常来看望她的女儿喝了这种水,都得了霍乱而死去。有了这个证据,约翰·斯诺就能够肯定地宣布,这种被污染了的水携带着病菌。

为了防止这种情况的再度发生,约翰·斯诺建议,所有水源都要经过检测,而且要寻找处理污水的新方法。自来水公司也接到指令,不能再让人们接触被污染的水了。“霍乱魔王”就是这样被击败的。

【Using Language】

具有革命性的哥白尼理论

尼古拉·哥白尼被吓得心烦意乱的。虽然他曾经试着不去理睬那些数字,然而他所有的数学计算都得出了一个相同的结论:地球不是太阳系的中心。只有当你把太阳放在中心位置上,天空中其他行星的运动才能说得清楚。他的这个理论可不能告诉任何人,因为即使他只暗示有这种想法,他都会受到强大的基督教教会势力的惩罚。教会认为世界是上帝创造的,正因为如此,地球就具有特殊的意义,它一定要成为太阳系的中心。

这样,问题就来了,因为天文学家以前发现过,天上有些行星停顿下来,往后移动,然后再成环形状向前移动。其他的行星看上去有时亮些,有时又不怎么亮。如果地球是太阳系的中心,而所有行星都环绕着地球转的话,那么这种现象就很奇怪了。

哥白尼对这些问题曾经苦苦思索过很久,试图找出问题的答案。他曾经收集过观测星球的数据,并且利用他的全部数学知识来解释这些数据。但是只有他的新理论才能作出解释。于是他在1510~1514年期间连续从事这项研究,逐步修改他的理论,直到他感到完善时为止。

1514年,他把他的新理论私下里给他的朋友们看。他对旧理论的修改是具有革命性的。他把太阳固定在太阳系的中心位置上,而行星则围绕着太阳转,只有月球仍然绕着地球转。他还提出地球在围绕太阳转的同时,它本身还自转,这样就说明了行星运动的变化情况以及星球的亮度问题。他的朋友都热情地鼓励他把他的想法公之于世,而哥白尼却小心谨慎,他不想遭到基督教教会势力的攻击,所以他只是在1543年临终之前才把它公布出来。

当然,他小心谨慎是对的。基督教教会拒绝接受他的理论,说这种理论违背了上帝的旨意,而支持这种理论的人都将受到打击。然而哥白尼的理论却是我们的宇宙观赖以建立的基础。他的理论还取代了基督教对地心引力的看法,他们认为物体往地球上掉落是因为上帝创造了地球,而地球正是宇宙的中心。哥白尼表明这是明显错误的。如今人们可以看到,他的这些想法与艾萨克·牛顿、阿尔伯特·爱因斯坦以及斯蒂芬·霍金等人的研究都有着直接的联系。



(教材 P41)

【Listening】

Answers to the exercises

【1】 Summary C is correct.



B doesn't give enough information. C is not true.

- 【2】** specialist; book; Sweden; 1707; 1778; biology; young plants and animals; babies; eggs; produce seeds; groups; eggs; feathers; bird; parrot; bird.

【Using words and expressions】

Answers to the exercises

【1】 expose... to; link... to; connect... to; blame; severe; examine; test; rejected; absorbed; defeated

【2】 1) Apart from going to the park, I have not been outside my flat this summer.

2) The results of the scientific experiments are valuable to us and they will contribute to the success of our research.

3) In addition to a good income I am offering you a new flat to live in.

4) It is difficult to make a conclusion without enough evidence.

5) Please check carefully after you complete the writing and make sure all the sentences make sense.

6) You're going to attend the lecture, aren't you? But you don't seem very enthusiastic about it.

7) Too much work and too little rest often leads to illness.

8) The government announced that the disease was under control.

9) Professor Yong is strict with his assistants. They must do the experiments according to his instructions.

【3】

Prefix	Meaning	Examples
co	together	co-operation, co-ordinate, co-opt
im- in- un- dis-	not	impossible, impractical, impolite, improbable inactive, inadvisable, inaccurate unnecessary, unpleasant, unlucky disadvantage, disappoint, dishonest
mid-	in the middle	mid-air, mid-day, mid- Atlantic
mis-	wrongly, badly	misunderstand, misinform, misjudge
over-	too much	overweight, overwork, overeager
re-	again	reunited, rearrange, rebuild
tele-	distant	telescope, telephone, telegram
under-	not enough	underpaid, underdeveloped, underdone

【4】 1; 4; 1; 1; 3; 1; 2; 1

【5】 略

【Using structures】

Answers to the exercises

【1】 1. prepared 2. interested 3. worried, continued 4. arrived 5. concerned 6. frightened

【2】 1. I found this *broken* plate on the floor.

2. I saw a tall, dark and handsome man *called* Xiao Ming.

3. I looked at that modern abstract painting *coloured* in yellows and greens.

4. Yesterday I got the *expected* answer to my question.

5. She is my friend *devoted* to my interests.

6. On the doorstep, I found a lot of bottles were *marked* in green ink.

7. We saw many *cracked* windows in that room.

【Listening task】

Answers to the exercises

【1】 Circle; analyze, pure, foundations, symbol, π , *sin*, *cosin*, geometry,

calculus, mechanics, practical, topology, geometry

【2】

Euler's achievements	Examples
New symbols and terms	π , sin, cosin
Old areas of mathematics	Revised and analyzed all maths of his day
New areas of mathematics	topology
Importance	Introduced a lot of symbols into maths Wrote more books than anyone before

【3】 There is no Euler path for this figure.

【Reading task】**课文注释**

1. **To his surprise, he found that he could cross six of the bridges without going over any of them twice or going back on himself, but he couldn't cross all seven.** 让他感到意外的是,他能够不重复地走过六座桥梁,回到自己原来的位置,但就是不能以同样的方式走过七座桥梁。

on; in a particular direction

going back on himself: 回到自己原来的位置

e. g. As the troops marched **on** the city, the leaders panned their escape.

2. **He drew himself a picture of the town.** ..他自己画了一张城市的地图……

himself 在句中作状语,意为“亲自”,可以移至谓语动词之前,也可移至句末。

3. **You needed some even point in your figure if you wanted it to work.**

even number: a number that can be divided exactly by 2, 4, 6...; opposite: odd number

4. **In his honor this puzzle is called “ finding the Euler path”.**

in his honor = in honor of him

e. g. It is a memorial in honor of those who died for their country.

An example of a report showing Gregor Mendel's work on peas (豌豆)**Gregor Mendel's Achievements**

Gregor Mendel (1822 ~ 1844) was born in Brno, Czechoslovakia and one of his most famous achievements is called Laws of Heredity.

Mendel studied 28,000 pea plants before making his laws about heredity. He first grew some pea plants and then watched their growing. He rejected (抛弃) the short plants (first generation) and concentrated on what happened to the tall plants do to the second generation. He found that the first tall plants generation produced the second generation plants which contained both short and tall. This showed that plants have two characteristics (short and tall) and they are both marked by the other, but only one shows. He proved that all inherited genes remain unchanged in the new generation plant and do not mix to become medium-sized (中型的) plants, from which he found Laws of Heredity.

探究综合训练

1. Talk about the pictures in groups, making full use of the information and the sentence patterns given below.



The man was a heavy smoker. His neighbors suggested that... Only when he lay dying...
He could neither... nor... And announced with certainty that... did the doctors find that...

2. 社会实践活动

Great changes have taken place in your hometown after our country's reform and opening up to the world. Fill in the chart with real data after making a social investigation (社会调查) in your hometown.

Before the reform and opening, you could find:	Now you can find:
Schools	Schools
Hospitals	Hospitals
Factories	Factories
Supermarkets	Supermarkets

单元测试题

本试卷分第一卷(选择题)和第二卷(非选择题),共 100 分,考试时间 100 分钟。

第一卷(两部分,共 75 分)

第一部分:听力(共两节,满分 20 分)

第一节(共 5 小题,每小题 1 分,满分 5 分)

听下面 5 段对话,每段对话后有一个小题,从题中所给的 A、B、C 三个选项中选出最佳选项,每段对话请听一遍。

1. Where are the two speakers ?
A. In a department store. B. In a clothes factory. C. On a playground.
2. What are the two speakers doing ?
A. Enjoying meeting each other.
B. Saying good-bye to each other.
C. Planning to see each other again.
3. What is the man interested in now ?