

30年创始人专注教育行业

全的学练考



本书为智慧教辅升级》

"讲题智能体"支持学生聊着 学,扫码后哪里不会选哪里;随 时随地想聊就聊,想问就问。



高中英语2

必修第二册 BS

天津出版传媒集团 天津人 & * & # +

北京 专版

图书介绍

培养核心素养,聚焦主题语境

Unit 4 INFORMATION TECHNOLOGY

主题素养积累

The Internet: a world without frontiers (边界)

The Internet has the power to connect people across the world to a single shared community. Billions of people in different parts of the world have joined it already, and obviously many more will follow.



Even in the countryside, the Internet enables people to reach beyond their villages and **get in touch with** the outside world. We can achieve almost anything online—with access to the Internet come some truly life-changing **advantages**.

One of the greatest advantages of the Internet **lies in** the quick and easy access to a huge amount of information. **To a certain extent**, the world's knowledge is all at our fingertips. With the **click** of a mouse or the touch of a button, it is possible to find out almost anything we care to know.

The Internet has also made our lives unbelievably convenient, with all sorts of goods and services provided by electronic commerce, more commonly known as e-commerce. You can have food delivered to you using food delivery apps and sites. Why wait hopelessly for a taxi in the cold rain? It is now simple and fast to order one with a taxi app. Sit back and relax indoors for a few warm minutes until the driver arrives. Above all else, the Internet helps us establish

our hobbies.

While the Internet brings many valuable advantages, being connected has its problems. As with any great invention, we must be aware of these problems and be careful to use the Internet properly and responsibly. **Only in this way can the Internet be a place of discovery, wonder and inspiration for everyone.** It is truly a world without frontiers.

【主题词句背诵】

- 1. get in touch with 和……取得联系
- 2. advantage n.好处
- **3**. lie in 在于,存在于
- **4**. to a certain extent 在一定程度上
- 5. click n.点击
- 6. get in the way 妨碍

7. The Internet has also made our lives unbelievably convenient, with all sorts of goods and services provided by electronic commerce, more commonly known as e-commerce.

互联网通过电子商务——也就是通常所说的电商—— 提供各种各样的商品和服务,使我们的生活变得异 常便利。

8. No matter where we are, we are able to keep in contact with loved ones, find long-lost friends and discover whole new communities who share our hobbies.

不管身在何处,我们都能与所爱之人保持联系,找到

Œ

夯实语言基础,搭建知识框架

词汇点睛

1. convenience *n*.方便,便利

(教材 P6) provide convenience 提供便利

(1)at one's convenience	在某人方便的时候					
for (sb's) convenience	为了(某人)方便起见					
inconvenience n .	不便利					
(2) convenient adj .	方便的,便利的					
It is/was convenient for s	b to do sth.					
对于某人来说做某事						
是方便的。						
sth be convenient for sb	某物对某人来说是方					
	便的					
inconvenient adj .	不便利的					
(3) conveniently adv. 方便地,便利地						
[温馨提示] convenient 作表语时,不可用人作主语,而						
要用物作主语或用 it 作形式主语;"当你方便的时候"						

句型透视

 (教材 P9) The use of several avatars can also be a risk, as people can use avatars to cheat others online.使用数个虚拟形象也可能会 带来风险,因为有人可能会在网上使用虚拟形象来 欺骗他人。

句型公式

as 引导原因状语从句

【相关拓展】

as 作连词/关系词,可以引导以下从句: ①as 引导方式状语从句,意为"按照,如同"。 ②as 引导时间状语从句,意为"当……时;随着"。 ③as 引导原因状语从句,意为"既然,由于"。 ④as 引导让步状语从句,意为"尽管",从句用倒装语 序,即"名词/形容词/副词/分词/动词 + as + 主语 + 系动词 be/助动词/情态动词/动词"结构。

多维度设置练习,精选语篇,针对有效

课内基础巩固

- 单句填空(每小题 1.5 分,满分 12 分)
- 1. The _____(convenient) of mobile payment has changed the way people shop.
- 2. Another _____ (recommend) to parents is to think about their own belief and goals for their kids.
- **3.** The _____(explore) of outer space has already had a far-reaching effect on scientific fields.
- **4**. This new teaching method is highly ______(effect) in improving students' grades.
- 5. When she first saw the robot, she felt (alarm).
- 6. The new software enables users

body are connected.

3. He isn't feeling well today, so you should (小心) what you say to him.

Many teenagers ______(沉迷于) social media, updating their avatars frequently to gain more attention.

5. After years of hard work, he _____

(被录取) a super renowned university that he had long dreamed of.
 ● 句型训练(每小题3分,满分9分)

- 可望训练(每小题5分,两分5分
- 生活不在于你取得了什么成就,而在于你从 这段旅程中学到了什么。
 Life is not about ______, but about ______,

.(what 从句)

课后素养提升

● 语法填空(每小题 1.5 分,满分 15 分)

Α

My sons, Liam and Patrick, love baking our family's special Swedish bread, 1. _____ we make only once a year. The recipe was passed family's past but also allows us to create new memories. One day, I hope my boys 3. _____ (carry) on these traditions, passing the stories and recipes to their own children.

B

On November 17, 2024, China's first domestically built ocean drilling ship, *Mengxiang* or *Dream*, 4. ______(enter) service in Guangzhou. *Mengxiang* is the largest scientific research ship ever built in China. Its most remarkable feature is its ability to drill as deep as 11 kilometres below the seafloor. After samples down from my great-grandmother to my greatuncle Olof, who baked it every week and later taught it 2. _____ me when I was fourteen. As we bake, we share family stories. Baking together not only helps us connect with our cooled small bottles now used to ship vaccines could potentially be replaced by lightweight films that can be mailed in an envelope and stored on a shelf.

Croyle's laboratory began developing the technology in 2007. Inspired by amber's ability to preserve the DNA of insects, the researchers set out to create their own version of the substance by mixing "a lot of sugar and a little bit of salt, much like hard candy". The vaccine-containing film is administered by mouth—sweet news for many who dislike needles.



重视写作,熟练高考写作题型

 • 阅读表达(第1、2题各2分,第3题3分,第 4题5分,满分12分)

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[2024·北京朝阳高一期末]
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阅读下面短文,根据题目要求用英文回答 问题。

How can we avoid food waste in our daily life? Rayner Loi has got his own way. He keeps a note on his phone with details of the food that goes bad every week at his home. That way, when he goes to the supermarket, he has a better idea of how much food he actually eats in a week, and can adjust his shopping accordingly.

He believes individual action like this is

假定你是李华,上周二你们班开展了一场 以"网络用语"(Internet slang)为主题的辩论 赛。请你给美国网友 Leah 写一封邮件分享这 次活动,内容包括:

1. 正反双方观点;

- 2. 你的看法。
 - 注意:写作词数应为100左右。

Dear Leah,

I'm writing to share with you a debate I had in class last Tuesday.

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H 核心素养提升练

	完形填空+语法填空+阅读理解+阅读七选五	核心素养提升练 1
076	完形填空+语法填空+阅读理解+阅读七选五	核心素养提升练 2
079	语法填空+阅读理解+阅读理解+阅读七选五	核心素养提升练 3
082	语法填空+阅读理解+阅读七选五+阅读表达	核心素养提升练 4
085	完形填空+阅读理解+阅读七选五+书面表达	核心素养提升练 5
088	完形填空+语法填空+阅读理解+阅读七选五	核心素养提升练 6

M ^{默写本}

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■参考答案 (练习册) [另附分册 P091~P114]

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≫测 评 卷

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Unit 4 INFORMATION TECHNOLOGY

★ 提示: 加底纹词汇为复现词汇



My sons, Liam and Patrick, love baking our family's special Swedish bread, 1._____ we make only once a year. The recipe was passed

As we bake, we share family stories. Baking

together not only helps us connect with our

family's past but also allows us to create new memories. One day, I hope my boys 3. _____ (carry) on these traditions, passing the stories and recipes to their own children.

В

On November 17, 2024, China's first domestically built ocean drilling ship, Mengxiang or *Dream*, 4. (enter) service in Guangzhou. Mengxiang is the largest scientific research ship ever built in China. Its most remarkable feature is its ability to drill as deep as 11 kilometres below the seafloor. After samples (collect) the ship's automated 5. system brings them aboard for analysis in nine laboratories specializing in 6. (field) such as geology and microbiology. The ship's unique propulsion (推进) system improves safety, 7. (enable) it to operate in rough sea conditions and even during super typhoons.

С

In the future, we may no longer need chemical pesticides (农药) to help crops grow. Chinese scientists have discovered a small molecule (分子) called 2'cADPR in plant cells that can stimulate immunity. This molecule may be developed into a new type of biopesticide. "Once this biopesticide is put into use, it will work when 8. (apply) to the plant surface," said Wan Li, one of the researchers. "Based on existing scientific knowledge, it has the potential to be used on various plants 9. (fight) many diseases." Wan also mentioned that the small molecule has already started production. The next step is to continue testing its effectiveness in the field, with the hope of putting it into 10. (practice) use soon.

♥ 阅读理解(每小题2分,满分8分)

[2025·北京师大附中高一期末]

Vaccines (疫苗) may soon make their first film appearance. Led by expert Maria A. Croyle, researchers have developed a thin sheet that preserves vaccines for long periods without using the cooling system. This means the carefully cooled small bottles now used to ship vaccines could potentially be replaced by lightweight films that can be mailed in an envelope and stored on a shelf.

Croyle's laboratory began developing the technology in 2007. Inspired by amber's ability to preserve the DNA of insects, the researchers set out to create their own version of the substance by mixing "a lot of sugar and a little bit of salt, much like hard candy". The vaccine-containing film is administered by mouth—sweet news for many who dislike needles.

The film is tailored to suit each specific vaccine candidate and provide a protective coating. "We've learned over time that the key to really stabilizing whatever the film holds is to have it intermixed with all the components," Croyle says, adding that the process is quick and uses affordable, standard equipment. "We really wanted to come up with something that would be transported to developing countries."

Immunization (免疫) programmes depend heavily on keeping vaccines cold (2 $^{\circ}$ C) as they are transported, sometimes over thousands of kilometres to faraway locations. Delivery can be difficult and costly, and transport delaying can cause the vaccines to be ineffective.

But this new product can store live viruses, bacteria and antibodies for several months at 20° C. In a paper published in *Science Advances*, the scientists show that the live viruses in one vaccine were preserved in the film even after 36 months. They also find that a flu vaccine suspended in their film compares favourably with a traditional flu shot. "The study demonstrates early proof of concept for an exciting platform for vaccine product development," says Lisa Rohan, who was not involved in the study. She also notes that each vaccine type would need a custom formulation (配方) for future stages of development.

Finding partners to mass-produce them for clinical trials is the researchers' most pressing problem, Croyle says. They are also exploring

5

班级

packaging methods to keep their films stable up to 40 °C.

Size is a major advantage—a letter-sized sheet of the film can carry more than 500 doses (剤) of vaccine, about 1/900 the weight of the same amount of traditional doses. By making it easier and cheaper to ship and preserve vaccines efficiently, Croyle says, the technology could vastly improve immunization rates the world over, particularly in middle-to-low income countries.

- ()1. What can we learn about the film?
 - A. It contains an animal's DNA.
 - B. It will replace vaccines.
 - C. It comes in different flavours.
 - D. It can hold bioproducts.
- ()2. According to Paragraph 3, we can learn about the film's
 - A. key component
 - B. development schedule
 - C. possible advantages
 - D. transportation requirements
- ()**3**. The author mentions Lisa Rohan's words to .
 - A. advise personalizing vaccines
 - B. suggest the product is promising
 - C. prove the study is supported widely
 - D. stress the functions of a new platform
- ()**4**. What will be the next urgent task for Croyle's team?
 - A. Advertising the film worldwide.
 - B. Improving the film's capacity.
 - C. Reducing the shipping cost.
 - D. Seeking ideal producers.
- ⑦ 阅读七选五(每小题2分,满分10分)
 「2025・北京朝阳高一期末〕

Future astronauts could potentially rely on food made from bacteria that feed on minor planets, to produce a kind of yogurt. While astronauts on the International Space Station have experimented with growing salad leaves, the vast majority of food consumed in space is transported from Earth. 1. _____ That's why Joshua Pearce at Western University in Ontario, Canada, decided to try using bacteria to change carbon-containing material from minor planets into eatable food.

This process has not been carried out yet on real minor planets. But Pearce's team has performed similar experiments using bacteria to break down plastic from leftovers in army food supply bags. 2. _____ The collective bacteria end up looking something like a brown milkshake and the team has also experimented with drying out this material to produce something like yogurt or even a powder.

3. _____ "We did nutritional research and it turned out to be almost a perfect food," he says. "It turned out that the bacteria mixture that we were using, more or less, has a third each for the three major nutrients people need."

If the idea is sound, a 500-metre-wide minor planet similar to Bennu, which NASA visited in 2020, could feed between 600 and 17,000 astronauts for a year, says Pearce. 4.

A fully working minor planets food project would require an "industrial-sized smart machine" in space. This would take a long time to get everything in place. 5. _____ They plan to start off with coal, then moving to space rocks that have fallen to Earth.

- A. It would be impossible for more distant, longer-lasting tasks.
- B. So the researchers hope to test the idea at a lower level in the coming year.
- C. Future astronauts could soon enjoy a nutritionally perfect diet made from bacteria.
- D. While that might not sound delicious, Pearce says the bacteria are well-suited for human needs.
- E. They heated the plastic without oxygen and then fed this to a mixture of bacteria that eat carbon.
- F. Although there is certainly hope, it is still a very futuristic idea that needs to be thought through.
- G. The exact number depends on how effectively the bacteria can break down the minor planet's carbon materials.

Period Two Lesson 1 Avatars (Reading)

课内基础巩固

● 单词拼写(每小题1分,满分6分)

- We can download apps, documents, and (图像) whenever we need them.
- Keeping a language alive can strengthen people's sense of _____(身份) and most importantly lead to the preservation of a whole culture.
- **3**. The ____(性别) of the newborn kitten was difficult to determine at first glance.
- **4**. His _____(博客) posts show his unique personality through humorous stories.
- The _____(实验) showed that plants grow faster when they receive more sunlight.
- 6. The v_____ tour allows us to explore the ancient castle without leaving home.

● 单句填空(每小题 1.5 分,满分 15 分)

- He made a careful ______(select) of clothes for the party to show his unique personality.
- **3**. She was _____(obvious) the best candidate for the job, given her extensive experience and skills.
- **4**. People with different personalities may express their _____(creative) in different ways.
- (variety) activities are organised in our school, like football games and singing contests.
- 6. She was deeply _____(concern) about her friend's health after hearing the news of the accident.
- **7**. The maths problem was so (trick)

that it took the students over an hour to solve it.

- People who are addicted to online shopping may _____(cheat) by fake product reviews.
- Different _____(type) of personalities
 can have a great impact on how individuals
 interact in various social settings.
- **10**. The new policy was viewed ______ a significant step forward in environmental protection efforts.
- ① 短语填空(每小题2分,满分10分)
- According to the doctor's recommendation, we should eat (各种各样的) foods to keep healthy.
- Those who are addicted to scientific research always _____(用……做实 验) new ideas.
- 3. _____(就我而言), we should download useful apps to help us study.
- (从 一种科学的角度出发), the long-term use of electronic devices has a significant effect on our eyesight.
- 5. He _____(哄骗我) buying this super expensive and useless toy yesterday.
- 句型训练(每小题3分,满分9分)

(as 引导原因状语从句)

这个孩子如此害怕,以至于紧紧地抓住妈妈的胳膊。

The child was

he clung tightly to his mother's arm. (so... that... 句型)

 ● 完形填空(每小题 1.5分,满分 15分)
 [2024 • 北京海淀首都师大附中高一月考] Online gamers constantly make life and death decisions at their keyboards—but it's just a game. A Texas gamer was faced with a real-life situation and helped <u>1</u> the life of a fellow player—5,000 miles away.

Aidan, in England, was playing an online game in his bedroom when he had a seizure. His playing partner, Dia, in Texas, just put her headset on and heard what she could only describe as a seizure, so she started to get <u>2</u> and asked what was going on and if he was OK. When he didn't respond, she <u>3</u> started to look up the emergency number in the UK. When that didn't work, she just had to hope the non-emergency number would work. It had an <u>4</u> for talking to a real person.

Someone answered the call and she had to force herself not to <u>5</u> and to stay calm. "Hi. I'm <u>6</u> in the US and in a call with my friend," Dia told the operator. "He had a seizure and he's not responding anymore. I do have his <u>7</u>. No one's home with him right now, so I'm just trying to get him some help."

Actually, Aidan's parents were watching television downstairs and did not <u>8</u> their son was in danger until three police officers knocked at their door.

"We are extremely thankful for what Dia did and <u>9</u> that we could be downstairs and not know anything was happening," Aidan's 在我有时感到无用的时候,照料植物给了我 一种成就感。

Tending to the plant gave me a sense of accomplishment at a time

. (定语从句)

课后素养提升

mother said. "Dia had our address but didn't have any contact numbers, so it was amazing that she <u>10</u> to get help from so far away. I've spoken to her and expressed our thanks she's glad she could help."

()1.	A.	spare	В.	enrich	
		C.	devote	D.	save	
() 2 .	Α.	threatened	В.	trapped	
		C.	concerned	D.	annoyed	
() 3 .	Α.	eventually	В.	instantly	
		C.	suddenly	D.	especially	
()4.	Α.	option	В.	order	
		C.	arrangement	D.	action	
() 5 .	Α.	explode	В.	complain	
		C.	panic	D.	quit	
() 6 .	Α.	accidentally	В.	currently	
		C.	obviously	D.	frequently	
() 7 .	Α.	age	В.	name	
		C.	number	D.	address	
() 8 .	Α.	decide	В.	explain	
		C.	realize	D.	judge	
()9.	Α.	relieved	В.	shocked	
		C.	puzzled	D.	bored	
()10	. A	. managed	В.	learned	
		С	. hoped	D.	promised	
(语法填空(每小题 1.5 分,满分 15 分)					

[2023·北京东城高一期末]

Α

In 2009, Whitacre received a video of a girl 1. _____ was singing one of his works. Inspired, he asked his fans 2. _____ (make) videos, which he then joined together 班级

into one performance. His first virtual choir had 185 singers 3. _____12 different countries. It has received millions of views on the Internet. Since then, the virtual choir 4. _____

(become) a worldwide phenomenon.

B

С

The Dragon Boat Festival is a traditional Chinese holiday 8. _____(celebrate) by many people today. It 9. _____(fall) on the fifth day of the fifth lunar month. There are many activities and customs, such as 10. _____ (race) dragon boats. It is also an occasion for families to gather and for people to show respect for the famous poet, Qu Yuan.

⑦ 阅读七选五(每小题2分,满分10分)

The rise in popularity of the Internet in the late 20th and 21st centuries has given rise to memes! According to Merriam-Webster, a meme is something interesting, such as a captioned (加文字说明的) picture or video, which spreads widely online. 1._____ It was born in 2012 and yet is as alive as ever.

Knowingly or not, you've probably used memes even if you're not always online. KnowYourMeme. com has been documenting the spread of memes ever since it was founded in 2008. 2. _____ In 2016, *Fortune* magazine reported that memes were the most searched term of the year. Companies, like Gucci and Nickelodeon, have begun using memes as a marketing strategy.

Memes usually have a very popular picture with a space for words. People can easily make their own meme by putting different words in that space to express their feelings. 3. ______ In addition, memes can nearly effortlessly receive a large number of likes or retweets. The positive social media attention serves as a sense of acceptance for many, especially young people.

4. _____ The humour of many memes is related to teens and topics that have a lot to do with their lives. According to the American Psychological Association, it does much good to teens to find something fun to laugh about, especially when they are under great stress. 5. _____ Serena Khan, a senior student, says memes affect her positively. "Memes are actually so funny," said Khan. "They can make my day ten times better."

No wonder memes have grown into a positive force in teenage life.

- A. Meme culture is developing all the time.
- B. So far it has recorded over 18,000 memes.
- C. Take "Grumpy Cat", a well-known meme, for example.
- D. People will turn to memes to express their inner hearts.
- E. That leads to the feeling of being part of something bigger.
- F. Many agree that memes do help them laugh through hard situations.
- G. For teenagers, memes are a way to connect peers with a shared sense of humour.

Period Three Lesson 2 Apps



● 单词拼写(每小题1分,满分4分)

- Nowadays, people are eager to get the
 (最新的) information about the
 products they are interested in.
- 2. If you ____(订阅) to this newspaper, you'll get an extra magazine.
- 3. Virtual Reality _____(设备) are becoming more and more popular among young people.
- **4**. A variety of e_____ arose during the experiment, making it difficult to draw accurate conclusions.
- 单句填空(每小题 1.5 分,满分 12 分)
- 2. We received _____(confirm) from the hotel that our reservation has been successfully made for next weekend.
- The ______(power) image in the advertisement really caught my attention, making me want to explore more about the product.
- 4. Nowadays, the growth of food ______(deliver) apps is drowning the country with takeout containers and plastic bags.
- **5**. She seemed confident but in _____(real) she felt extremely nervous.
- 6. The teacher tries to _____(sure) that every student has the opportunity to show their creativity in class.
- ♥ 阅读理解(每小题2分,满分16分)
 - A [2024 · 北京通州高一期末]

Space exploration has produced valuable insights about Earth, the solar system and beyond.

- **7**. The _____(favour) conditions allowed the team to complete the project ahead of schedule.
- **8**. It is estimated that China accounts ______70 percent of global silk production.
- ① 短语填空(每小题2分,满分10分)
- The term "AI" is often used (简称) when referring to artificial intelligence.
- Learning that a volunteer is needed for an exhibition of traditional Chinese painting, I am writing to ______(申请) the post.
- Our programme has attracted hundreds of regular listeners ever since it (被建立) two years ago.
- The research project closely ______
 (与……相关) environmental protection aims to find solutions to pollution.
- 5. I am ____(赞同) the new plan because it seems more sensible.
- 句型训练(每小题3分,满分9分)
- 1. 如果你想尽快康复,务必听从医生的建议。

if you

want to recover quickly. (强调谓语)

是时候我们学习如何减少日常生活中的塑料垃圾了。

It is time that we learned

in our daily lives.

3. 学习新语言带来了与不同文化联系的机会。

________opens up opportunities to connect with different cultures. (非谓语)



However, massive space activity over the past few decades has led to unintended orbital debris (残骸).

Every launch of satellites or rockets adds to

the problem, increasing the risk that negatively influences not only space missions but also future endeavors. Since the 1957 launch of *Sputnik-*1, human activity in Earth's orbit has caused significant distortions in space, raising serious concerns about the debris left behind.

This ever-increasing threat can be best understood through the Kessler syndrome in space. This phenomenon occurs when objects in low Earth orbit (LEO) become so crowded that they begin to hit each other, creating more debris and more collisions (碰撞), thus resulting in chain reactions of mergers and fission. Many experts warn that LEO is moving towards Kessler syndrome.

Accidental collisions in space also increase the orbital overload, such as the 2009 collision between two satellites, *Kosmos 2251* and *Iridium 33*. Such events have worsened the orbital debris problem and raised the prospect of disastrous space conditions.

The need for sustainable space activity and the reduction of space debris is being emphasized globally to address the rising space pollution. Therefore, governments have issued many regulatory measures, including active debris removal (ADR) technologies or pollution prevention, which are either planned, tested, or already carried out to protect both existing spacecraft and ones set to be launched.

Besides regulatory measures, several <u>mitigating</u> methods are also used to reduce the orbital overload. One such method involves causing a satellite to break down naturally by bringing it closer to Earth's surface so it burns up in the atmosphere. This method is considered costeffective because the defunct satellite can be pushed towards Earth's surface at a lower altitude using a physical tool like a net or an air-bursting tool. Another similar technology uses a harpoon that is fired in the direction of the targeted spacecraft to capture it and direct it towards Earth in an active manner, causing the debris to deorbit and plan atmospheric incineration.

To reduce the long-term risk of collisions, the focus needs to be on reducing the amount of debris in the orbit. International cooperation and continued investment in debris reduction technologies are carried out to reduce the potentially disastrous consequences of an overcrowded orbit.

- ()**1**. What is the primary concern regarding orbital debris?
 - A. Its impact on weather patterns.
 - B. Its impact on future space missions.
 - C. Its impact on satellite communication.
 - D. Its impact on natural atmospheric processes.
- ()2. What does the underlined word "mitigating" in Paragraph 6 most probably mean?
 - A. Lessening. B. Worsening.
 - C. Curing. D. Strengthening.
- ()**3**. What are some regulatory and mitigation measures to address space debris?
 - A. Frequent satellite launches.
 - B. More space tourism for tax.
 - C. Active debris removal (ADR) technologies.
 - D. More space telescopes for monitoring.
- ()4. What can we learn from this passage?
 - A. There are no existing methods to reduce space debris.
 - B. Reducing space debris calls for joint and further efforts.
 - C. The Kessler syndrome is a minor concern for space missions.
 - D. Active debris removal (ADR) technologies are the only solution to space debris.
 B [2025・北京海淀高一期末]

In 2022, an advanced AI language model took the world by storm with its impressive capabilities. Yet hidden within its design lies a key breakthrough responsible for sending AI rocketing these past few years—and possibly a limitation that could see it crashing back to earth.

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At its core, the AI model relies on a "transformer" approach. When the model is given a string of words, it makes links between the words it has already been fed, "transforming" the whole input into a new output. That design achieved huge success when given enough computing power and data, leading to the surprising jump in apparent reasoning and language capabilities behind today's AI tools. What's more, using ever greater levels of computing power and data seems to continually improve a transformer's performance. This "scaling law" is why AI companies have predicted that their models will get better and better.

Outside observers are doubtful, however. Some researchers question whether this allimportant scaling law can continue to be <u>unimpeded</u>, especially as most of the available data to train the models on has already been gathered on the Internet.

Even if transformers continue to follow this scaling law, there could still be a fundamental (根本的) problem with their design. They lack an internal memory, which is central to how human intelligence works. Unlike humans, who can remember past information and build on it naturally, transformers don't have this capability. As a result, transformers must repeatedly look back at data they have already seen. Processing and producing long text can therefore require enormous computational resources as the AI scans back and forth.

Researchers hope to solve this problem with other neural network architectures, such as a model called extended long short-term memory (xLSTM), which produces comparable results to transformers while being much more efficient and able to remember past states.

But a deeper problem with both transformers and their alternatives is whether they are "Turing complete", which means they are able to run any algorithm (算法) or compute anything that any other computer can. Take a basic problem: adding two numbers. Since transformers learn from their training data, they are good at adding numbers they've met many times, but may produce incorrect results for numbers not found in their training data.

While transformer algorithm is improving as models scale up, it still isn't clear whether they have the capability to do addition in a Turing-complete way. So, what is the solution? Finding an AI architecture that can perform as well as the transformer, while also solving the current problems with efficiency and memory, is no easy task.

- ()**5**. Some AI companies are optimistic about their AI models because
 - A. they can transform input into a new output
 - B. they have mastered reasoning and language skills
 - C. they can bring about breakthroughs in computing power
 - D. they keep improving with growing computing power and data
- ()**6**. What does the underlined word "unimpeded" probably mean in Paragraph 3?
 - A. Unblocked. B. Unexpected.
 - C. Unsolved. D. Unexplored.
- ()**7**. What can we learn from the passage?
 - A. Transformers are good at adding numbers.
 - B. xLSTM produces better results than transformers.
 - C. To be Turing complete is a challenge for AI models.
 - D. Internal memory enables AI models to produce long text.
 - **)8**. Which would be the best title for this passage?
 - A. The rise and fall of AI models

(

- B. The uncertain future of AI models
- C. Solutions to problems of AI models
- D. Scaling laws and AI models' progress

Period Four Lesson 3 Internet and Friendships (Reading)

课内基础巩固

● 单词拼写(每小题1分,满分6分)

- Obviously, a sincere (拥抱) can convey more than words sometimes.
- A lot of the content posted on social media is _____(肤浅的) or trivial.
- Balancing study with leisure activities is crucial for students to _____(保持) a healthy and well-rounded student life.
- Teachers should create an atmosphere for students in class where everybody can voice their _____(观点) freely.
- 5. The _____(权威人士) who has been doing experiments in this area for years confirmed that the new software is effective.
- The p_____ of AR -related products in the latest technology exhibition is about twenty.

● 单句填空(每小题 1.5 分,满分 15 分)

- 2. He _____(brief) described the type of accommodation they would stay in.
- **3**. She came up with a _____(create) idea to decorate the fancy room.
- **4**. Smoking is _____(harm) to our health, which is obviously known to everyone.
- 5. The _____(argue) between them was mainly about how to view the new policy.
- 6. Subscribing to this educational magazine is (reward) as it provides valuable knowledge that enriches your mind.
- It was confirmed that many of these customs were narrow, _____(limit) and bad.

- **9**. The _____(replace) of the old bridge with a new one has improved traffic flow in the area.
- He didn't explain everything in detail;
 (basic), he just gave us the main points.
- ① 短语填空(每小题2分,满分10分)
- Staying up to study does harm to your health.
 (除此之外), it will have an

effect on your study the following day.

- I suggest we communicate with the teachers whenever necessary and (集中注意力于) what the teachers say.
- **3**. He (关心) the
 - environment and devoted his whole life to protecting it.
- She always _______
 (保持联系) her old friends by sending them emoji -filled messages.
- **5**. The teacher graded the students _____(在……的基础上) their

participation and homework completion.

- 句型训练(每小题3分,满分12分)
- 我们认为定期举办这样的活动很有必要,因为它可以加强团队成员之间的联系。
 We

_____ because it can strengthen the bond among team members. (it 作形式宾语)

2. 正是您的帮助让我能够克服学习上的困难。

enabled me to overcome the difficulties in my study. (强调句)

3. 无论你面临什么挑战,都要保持乐观并继续 前进。

always stay positive and keep moving forward. ("no matter + 疑问词"引导让步状语从句)

♥ 完形填空(每小题 1.5 分,满分 15 分)
 「2025・北京顺义高一月考」

Julia Koch began her second year as a first grade teacher in a virtual classroom last September.

One afternoon, she received a <u>1</u> from Cynthia Phillips, who was having technical difficulties with her granddaughter's tools for online learning. Koch at once knew something was wrong with Phillips. The two women had spoken on the phone many times before, but Koch had never heard the grandmother <u>2</u> quite like this. Koch could hardly understand her, though she was able to make out that Phillips had fallen four times that day. Koch thought the grandmother might be having a stroke ($\# \mathbb{R}$)—she <u>3</u> the signs because her own father had suffered one. Koch <u>4</u> called an ambulance to the grandmother's home.

The quick response from Koch <u>5</u> Phillips' life. The grandmother arrived at the hospital in time to get treatment before other <u>6</u> occurred.

"If it weren't for the teacher, I wouldn't be here," said Phillips from her hospital bed.

<u>7</u> learning has been a challenge across the country, but it's fair to say that it has helped people grow <u>8</u>. Many teachers gave their personal phone numbers to students and families <u>9</u> they needed extra help. In this case, the exchange between the school and parents was really life-changing. Just as one neighbour says, "We're proud of Koch. She <u>10</u> so quickly and it did make a difference for Mrs 那抹隐藏在羞涩背后的微笑透露了她真实 的喜悦。

The smile

revealed a glimpse of her true joy. (过去分词短语作定语)

课后素养提升

Phillips. We should care about each other, and we don't just say the words. We follow through."

		-				
()1.	Α.	letter	В.	prize	
		C.	gift	D.	call	
() 2 .	Α.	sound	В.	sing	
		C.	argue	D.	laugh	
() 3 .	Α.	recognized	В.	gathered	
		C.	recorded	D.	marked	
() 4 .	Α.	gradually	В.	immediately	
		C.	recently	D.	eventually	
()5.	Α.	risked	В.	saved	
		C.	ruined	D.	improved	
() 6 .	Α.	pains	В.	mistakes	
		C.	damage	D.	failure	
() 7 .	Α.	Effective	В.	Individual	
		C.	Virtual	D.	Diverse	
() 8 .	Α.	happier	В.	closer	
		C.	richer	D.	smarter	
() 9 .	Α.	even though	В.	so that	
		C.	except that	D.	in case	
()10	. A	. identified	В.	rejected	
		С	. responded	D.	hesitated	
Ø	● 语法填空(每小题 1.5 分,满分 15 分)					

A

The Temple of Heaven is a magnificent complex of fine cultural buildings set located 1._____ the southern part of Beijing. It has been one of the most significant 2._____ (place) for the whole country for more than five centuries. It 3._____ (serve) as a complex of sacrificial buildings for the Ming and Qing emperors, and is the 4._____ (large) one in Beijing among several royal sites. 班级

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My mother is an ordinary woman, but she always tries her best to deal with things 5.______(perfect). With an optimistic attitude, she always thinks of others first 6._____ never complains of anything in her life. As a teacher, she has a good sense of humour and makes her students interested in study. She shows great patience to those naughty ones, 7._____ also give great comments on her in return.

С

Nowadays, people in the city typically get their meals by opening an app, placing an order, and 8. ______(wait) for the food to be delivered right to their doorstep—this is 9. ______ city people eat in China these days. Recent figures from the China Internet Network Information Centre reveal that 421 million Chinese individuals use online food delivery services. This number 10. ______ (represent) half of the country's total Internet user base.

● 阅读七选五(每小题2分,满分10分)

[2024·北京朝阳高一期末]

For many people, being connected in the digital world is just a part of everyday life. However, there are many times when you might want to give up your digital devices. 1.

What is a digital detox?

A digital detox refers to a period when a person stops using tech devices such as smartphones, computers, and iPads. It is often seen as a way to focus on real-life social interactions without distractions. There are a variety of forms of detoxing. 2. _____ Also, you can try a specific detox—limiting the use of one app or digital tool that is taking up too much of your time.

Why do you need a digital detox?

Many experts believe that tech and device

overuse can lead to physical and mental problems. One study published on *Global Pediatric Health* suggested that children who used digital devices at bedtime had significantly worse and less sleep. 3. _____ Besides, heavy device use may be related to mental health concerns. Researchers from the University of Pennsylvania recently published a study linking the use of social media to increased stress level and symptoms (症状) of depression and loneliness.

4.

For many people, completely giving up all forms of digital communication might not be possible, particularly those who depend on them for work or school. So, the first key is to be realistic. If you need your devices during the day for your job, try doing a mini-detox at night. 5. ______ Another way is to remove things that disturb you. Try to turn off push notifications (通知) on your phone or leave your phone at home when you are having dinner with friends. Of course, you can also tell your friends and family that you are on a digital detox and ask for their help, or keep a journal to track your progress to ensure a more successful detox.

- A. How do you do a digital detox?
- B. In this case, you might as well try a digital detox.
- C. What are the keys to giving up all digital communication?
- D. It also found a connection between night-time tech use and eyesight problem.
- E. Doing a mini-detox is one way to set limits and reduce your fear of missing out.
- F. During that time, you can turn off your devices and spend an evening free of electronics.
- G. One of them is a digital fast, which means giving up all digital devices for a period of time.

Period Five Grammar

课内基础巩固

语法专练——过去将来时

用所给动词的适当形式填空(每小题 1.5

分,满分10.5分)

- In the lecture yesterday, the adviser made a recommendation that we should be well prepared for whatever _____(come) in the future.
- 2. He said he was going _____(live) in the countryside after he retired.
- **3**. He said the train _____(leave) at six the next morning.
- 4. My parents promised me they were going _____(take) me to France the next year.
- 5. He was 100 percent sure that his new book (publish) the next month.
- 6. We were about _____(quit) when finally we spotted something through the trees.
- 7. As Aristotle said, no one _______(choose) to live without friends, even if he had all other goods.
- ① 句型训练(每小题3分,满分18分)
- **1**. 索菲告诉我下个礼拜她要来看我。 Sophie told me _____
- 他正要去一座海边小镇旅行,这时他被告知 那里地震了。

when he was told that an earthquake had happened there.

 得知将不会被带去看航空表演,那个男孩很 失望。

The boy was disappointed to hear that

4. 我以为妈妈会给我们做一顿丰盛的晚餐。 I thought that Mother 杰克不敢想象没有动物的明天将会是什么样。

Jack was afraid to imagine

without any

animals.

 6. 在大学里,道尔不知道自己会成为一名历史 小说作家。

At college, Doyle didn't know that he

词法专练——复合词

① 从方框里选择合适的复合词填空,并注意形式变化(每小题 1.5 分,满分 15 分)

sister-in-law, long-distance, sightseeing, breakdown, faraway, world-famous, inside, high-quality, ordinary-looking, so-called

- Sorry for being late—we had a ______ on the highway.
- Obviously, those ______ friends of hers have a bad effect on her.
- **3**. Xi'an is a ______ tourist attraction for its ancient culture.
- The girl got married to my brother and became my _____.
- Some people like to lie on the beach, but I prefer _____ to explore some more beautiful places.
- 6. Could you please tell me how to make a _____ call to the US?
- In some villages, girls are not as much valued as boys.
- It was raining hard and we had to stay
 _____ watching TV all day long.
- **9**. The _____ TV sets made in this company sell well at home and abroad.
- **10**. Though ______, he is now one of the super Chinese pop singers.

课后素养提升

● 阅读理解(每小题2分,满分16分)

A [2024·北京海淀高一期末]

When I was a young girl in 8th grade, my classmates told me how they met new friends and even chatted with celebrities on the Internet. I was intrigued and wanted to experience these exciting things. I opened an online account; this was the beginning of my journey through the virtual world. As time went by, I became accustomed to checking social media more frequently. I buried myself in social media, chatting with friends and sharing my life with them. Social media was a source of happiness and more so, it brought a sense of satisfaction, pain, and frustration.

My newfound interest started interfering (干扰) with my schoolwork. Instead of checking my school notes in time as usual, I checked social media more often to see what was happening with my friends' lives. But I later discovered that by becoming more aware of other people's lives, I became less in tune with myself. I was more focused on the illusions social media presented than the realities of my life. Thus, I started to sense depression, jealousy and hatred as a result of comparing my life with others. And I became much like what the people in the virtual world expected of me.

Luckily, my phone went missing and my mother refused to get me a new one. I felt sad and lonely. However, her refusal led to something more meaningful to my life. Within a month, I became less concerned about other people's lives and more concerned about my courses. And I had more time to study and sleep.

Lack of social media also made me realize that social media had been interfering with my study habits and my private life. For example, I had no privacy. Anyone who had access to my social media profiles could easily find out where I lived. Moreover, I sometimes spent 15 hours browsing through social media without doing anything productive.

After examining my use of social media, I decided not to entirely quit social media, but to change the way I use them. I unfollowed sites that didn't contribute to positive or educative aspects of my life. I only use social media to spread positive messages and connect with others. Social media is not inherently bad, but it becomes terrible when we are addicted to it.

- ()**1**. After creating an online account, the author _____.
 - A. became less in harmony with herself
 - B. showed no concern for her schoolwork
 - C. lived a more exciting and satisfying life
 - D. cared more about others and felt happier
- ()2. Lack of social media made the author
 - A. develop new hobbies
 - B. focus more on her studies
 - C. forget how to access her account
 - D. unfollow sites connected with her life
- ()**3**. The author might agree that social media
 - A. ruins people's life and should be quit
 - B. broadens people's views of the world
 - C. challenges people's self-control ability
 - D. plays a primary role in people's life
- ()**4**. What is the passage mainly about?
 - A. A struggle in the days without phones.
 - B. Ways to get rid of social media addiction.
 - C. A personal experience with the virtual world.
 - D. Drawbacks of social media outweigh benefits.

B [2025 • 北京朝阳高一期末]

We can struggle to maintain working relationships when our social group grows too large, but artificial intelligence models may not face the same limitation.

Dating back to the 1990s, the scientist Robin

Dunbar presented that the number of relationships we can maintain is typically about 150 due to the size of our brains. Now, researchers have applied this idea, known as Dunbar's number, to AI models and found that the most powerful ones with the largest "brains" can manage groups of up to 1,000.

Giordano de Marzo and his colleagues at the University of Konstanz experimented whether AI models like ChatGPT act like humans when "talking" to each other in groups. They ran many copies of the same AI model at once, giving each an opinion on a problem without obvious answers. At each step of the experiment, they chose one copy by chance and told it what opinion all the other copies held and why, and then asked if it would like to update its own.

The team found that the high-end AI models like GPT-4 Turbo reached agreement every time. Yet copies of smaller and less powerful models like GPT-3.5 Turbo never reached agreement. The results showed that although the models in each test were the same, there was no inborn system for agreement, at least until they became capable enough.

The researchers then tried to find an upper limit on each model's ability to reach agreement their own Dunbar's number. For some models, like Llama 370 b, the agreement process became increasingly slow as the group size grew, ending up with a Dunbar's number of 50. But for other models, like GPT-4 Turbo, this ability never slowed down even once 1,000 copies were working together.

"I was very surprised," says De Marzo. "We were able to simulate (模拟) up to thousands of models and there was no sign at all of a breaking of the ability to form a community." He adds that memory is key. While we may struggle to recall facts, faces and opinions at a certain point, AI is limited only by its hardware.

Philip Feldman at the University of Maryland, however, says AI models with high Dunbar's number may be able to reach agreement on a problem, but that doesn't necessarily mean they will find a good solution. He believes diversity is key to problem-solving, which is hard in groups made up of the same AI model. A larger concern is whether it even makes sense to talk about copies of an AI model as a group of individuals, says Michael Rovatosos at the University of Edinburgh. "The models don't understand what they are, how they are separate from other models or what the experiment's purpose is."

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阅读

理解

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- ()**5**. Researchers applied Dunbar's number to AI models to .
 - A. test their memory competence
 - B. observe their social behaviour in groups
 - C. record the working speed of different AI models
 - D. find the limit of AI models to maintain relationships
 - **)6**. What can be inferred from the research of Giordano de Marzo's team?

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- A. AI models have the ability to take over larger groups than humans.
- B. AI models' ability to form communities is limited by human memory.
- C. AI models can replace humans in managing difficult social interactions.
- D. AI models' performance in reaching agreement depends on their capabilities.
- **)7**. What can we learn from this passage?
 - A. AI models with high Dunbar's number solve problems better.
 - B. Copies of the same AI model lack the ability to think independently.
 - C. AI models with large "brains" have an inborn system for agreement.
 - D. Copies of the same AI model update their opinions without extra information.
- ()8. As for the use of AI models in social activities, the author is _____.
 - A. supportive B. puzzled
 - C. careful D. unconcerned