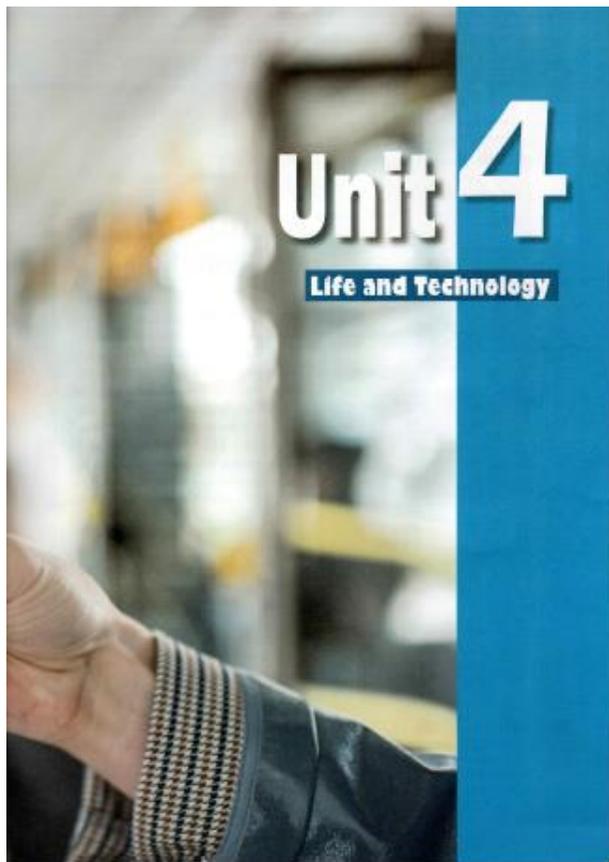




上海市英语教育教学研究基地

Shanghai Center for Research in English Language Education



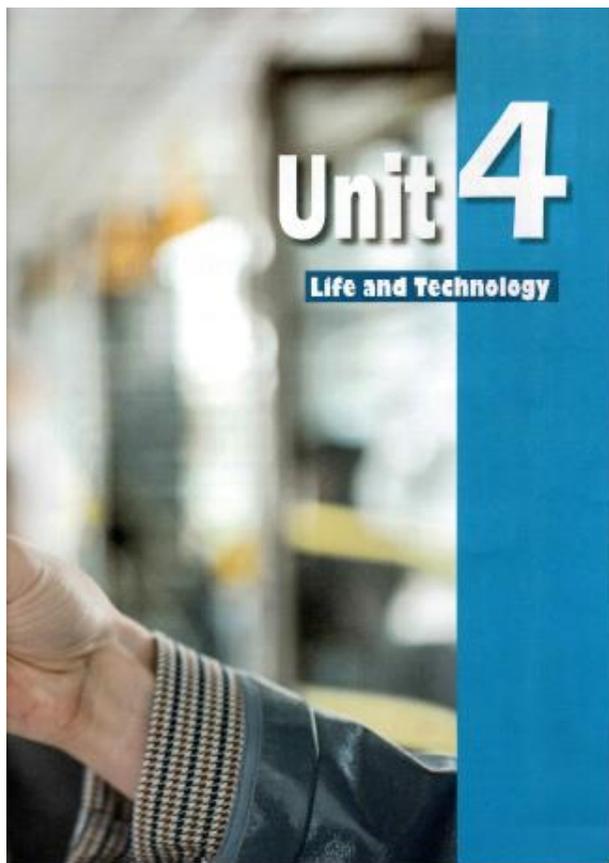
《高中英语》（上外版）

必修第三册第四单元第六课时
教学课例

主讲人：陈远旻

《高中英语》（上外版）

必修第三册第四单元



//课时	授课内容
1	Getting Started/ Reading A/Vocabulary Focus
2	Reading A/ /Grammar in Use
3	Listening and Viewing
4	Moving Forward (Writing)
5	Moving Forward (Speaking)
6	Reading B/ Critical Thinking
7	Further Exploration/ Self-assessment

学习目标 Learning Objectives:

At the end of the lesson, you will be able to ...

1. 能通过上下文语境或借助图片，理解语篇中描述5G外科手术特征的词语

understand the meanings of the expressions describing the features and procedures of surgery over 5G Internet;

2. 能在主题语境下，建构5G技术话题词汇语义网，描述远程外科手术相较传统手术的益处，加深对阅读B语篇内容的理解；

use the topic related words and expressions to describe the advantage of tele-surgery over traditional surgery, further understanding the exact meaning of Reading B;

3. 通过分析文中案例，推断报道者对5G网络下外科手术的态度，并树立自己的态度。

analyze the pros and cons of the four new pieces of technology with a mind map;

4. 能灵活运用目标词汇，写一篇概要文章。

practise the target words properly by doing a summary writing.

Unit 4 Reading B

Doctors in China
do surgery over 5G Internet

— by 陈远旻
西南位育中学

doctor



patient



surgeon

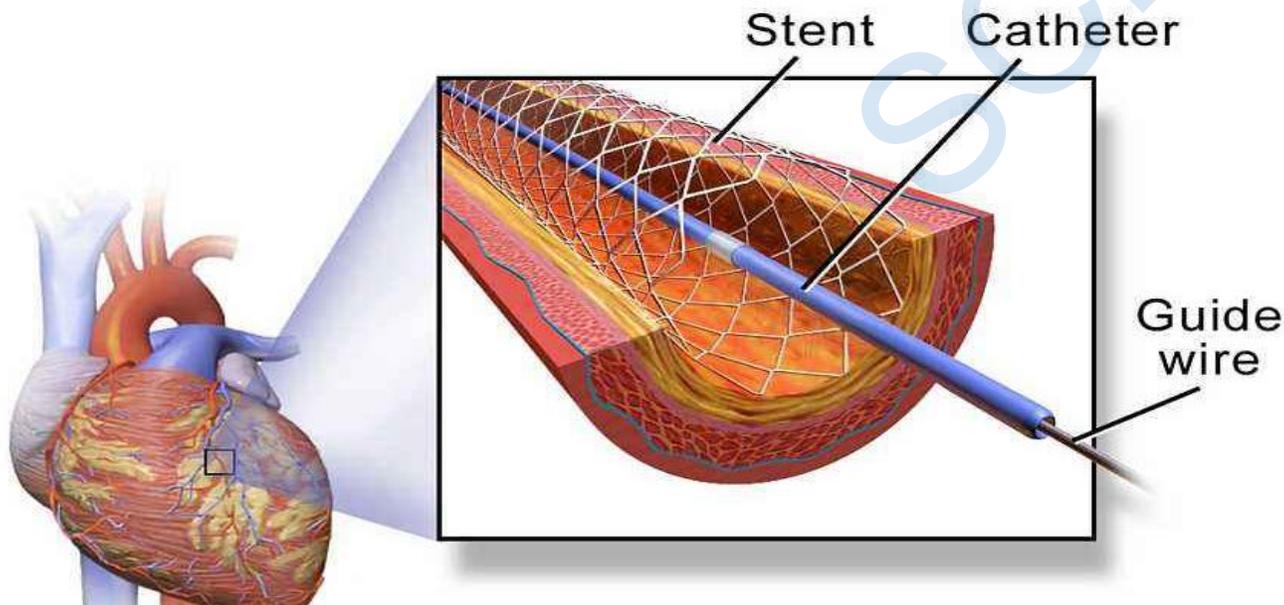
What do they do?



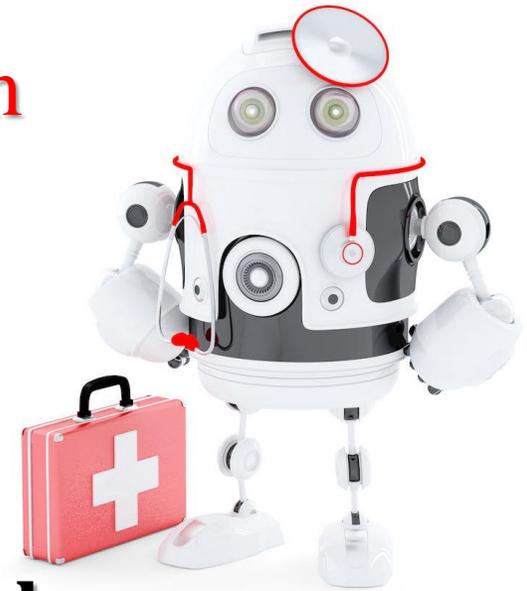
**expert
specialist**



Stent in Coronary Artery



**Different from
traditional
surgery, ...**



Noun

- 1. artificial intelligence**
- 2. device**
- 3. image**
- 4. operating room**
- 5. a great leap in healthcare**



Read & underline ...

- 1. What does the author mean by “The future of surgery is looking ‘remote’”?**
direct the heart surgery hundreds of kilometres away
- 2. What types of technology did Guo and his team use to direct the surgery hundreds of kilometres away?**
a 5G mobile Internet connection
- 3. What is the advantage of 5G network over 4G network?**
It can provide a more stable connection by greatly reducing signal delay.
- 4. In what type of surgery is 5G network particularly important?**
Telesurgery when a doctor operates remotely with a robot



Doctors in China do surgery over 5G Internet

features

1. a 5G **mobile** Internet connection
2. **remotely** control a **surgical** robot
3. help with operations without being **present**
4. put together a 3D model with **medical images** by AI
5. a **live** video conference link

attitude

- make **long-distance** surgery **attractive**
- **save** doctors time to **save** more lives
- is **many** times faster than 4G
- **make a huge difference** during **telesurgery**

supportive



Pronounce & spell

meaning

1. being moved easily from **mobile** place to place
 2. worth having or doing **attractive**
 3. being broadcast at exactly the same time as **live** it happens
 4. a picture or idea of them **image** in your mind
4. Can you **imagine** his image in the self-portrait?

Word formation

1. A mobile phone gives people great **mobility**.
2. Monet's garden is so attractive to tourists that it has become a tourist **attraction**.
3. I like live shows and the program is broadcast **live**.





Word parts

-cal adj.

- Several police officers received medical treatment for cuts. (医疗处理)
- Hospitals lack even basic drugs for (外科手术) surgical operations.

tele-

adj.-n. --- adj.

- 远程的 long-distance
 - 头等的 first-class
 - 单向的 one-way
 - 二手的 second-hand
-
- The surgeons are performing telesurgery through telecommunication ... on telephone ... at a teleconference



Describe telesurgery with the help of the key expressions

Para. 1: 指挥心脏外科手术

Para 2: 无需出现在手术室里

Para 3-5: 指导手术团队...
从镜头里观察

Para 6-7: 节省医生时间

Para 8: 减少信号延迟

Para 9: 对...起到重要作用

Eg. 将医疗装置置入脑内

.....

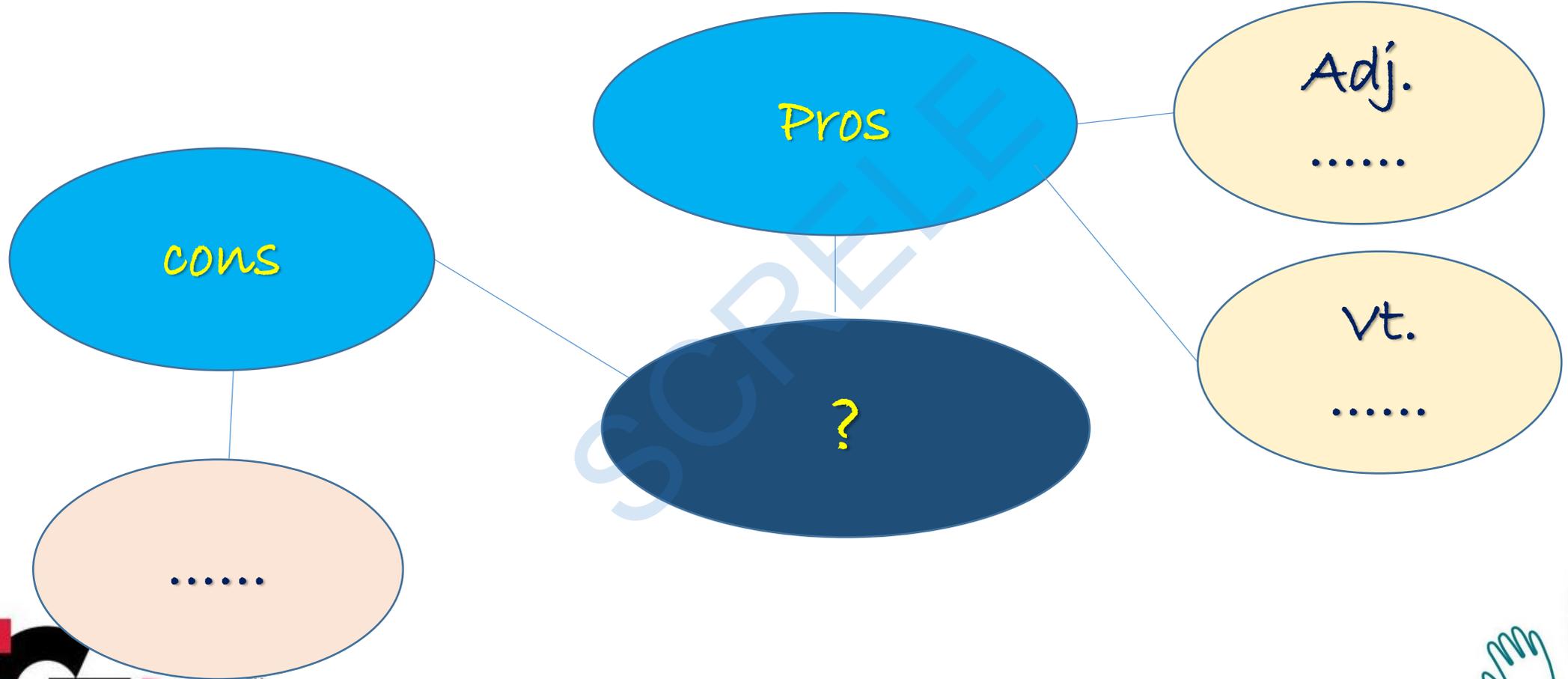
- direct the heart surgery
- help with operations without being present in operating rooms
- instruct operating teams on...
- observe the operation from a camera
- save doctors time
- reduce signal delay
- provide a more stable connection
- make a huge difference to .sth.
- Eg. insert a medical device into the brain



Life and Technology	Pros	Cons
Robot dogs		
Self-driving cars		
VR technology		Not mentioned.
5G Internet		Not mentioned.

- A. Identify the impacts of new technology on daily life
- B. Share your attitude towards modern technology
- C. Conduct a survey on the use of smart apps
- D. Weigh the pros and cons of new technology
- E. Use comparison and contrast in writing

1. Draw a mind map and develop it into a summary.



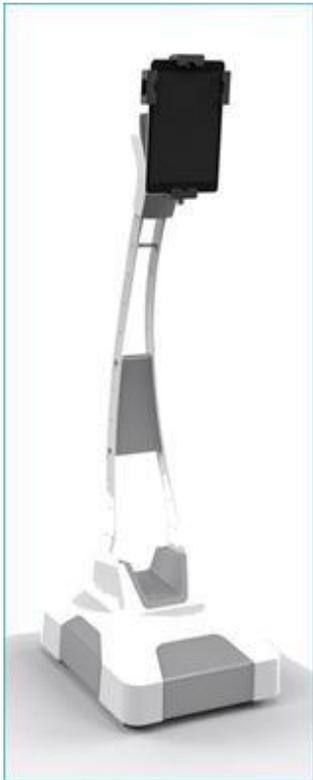
Assignment



1. Do supplementary reading and comment on one of the tools by properly using the expressions learned in class.
2. Analyze the pros and cons of the new technologies and inventions introduced in this unit and complete the table.
3. Work with a partner. List two things that you wish had never been invented and explain why.

telepresence robots

robotic and virtual reality-based surgical tools



Maker



Access



Care



Telepresence Tools

Like next-generation telephones, the use of telepresence tools to let people remotely participate has been utilized in a broad range of areas. For example, **telepresence robots** have been used to let kids with chronic conditions attend school or even graduation ceremonies when they cannot physically be present. Combine that with 5G technology and the sort of new **robotic and virtual reality-based surgical tools**, and it seems that there are some very exciting implications for the future of medicine. Although it's still preferable to have a doctor physically present for a procedure, this will allow specialists to be called on to assist even when they cannot travel to a particular hospital, potentially due to the urgency of an operation.