Module 5 Unit 1

Great Scientists







make a difference

make every effort

make great contributions

STAGES IN SCIENTIFIC RESEARCH



Rigorous()^亚谨的)^fscientific^{*}research^{vidence} Collect results Make a question Find a problem stages, are essential to prove a new idea.



John Snow defeats "King cholera"

What?

Who?

Scientific research stages

How?



Adjectives(形容词)

famous/ wellown expert/ stessional ind-hearted

considerate

deadly urable infectious (传染性的)

"King cholera"

Adjectives

John Snow

Para2: Make a question: Which theory is correct?

Two theories



The second



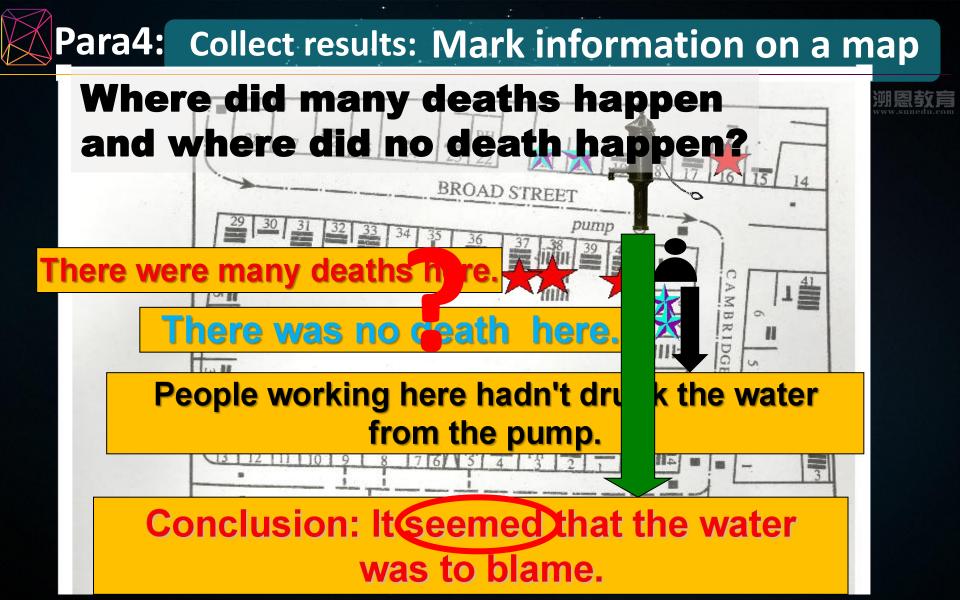
It suggested that cholera multiplied in the air.

It suggested that people absorbed this disease into their bodies with their meals.

As a scientist, it is important to keep curious, critical(批判性的) and sensible(有判断力的).



John Snowsuspected that the second theory was correct but hemeeded evidence. So when another outbreak hit London in 1854, he was ready to begin his enquiry As the disease spread quickly through poor neighbourhoods, he began togather information In two particular streets, the cholera outbreak was so severe that more than 500 people died in ten days. He was determined to find out why where the victims lived the number of the dead victims



Para5: Analyse results: Analyse the source of the water

- Q1: Where did the water come from?
- It came from the river polluted by the dirty water from London.
- Q2: What measures did John Snow take and what about the result? Remove the handle from the pump. The disease slowed down.
- Cholera was spread by germs and not in a cloud of gas.



Para6: Find supporting evidence: Find other evidence

Q: What is the supporting evidence? Two other deaths in another part of London that were linked to the Broad Street outbreak.

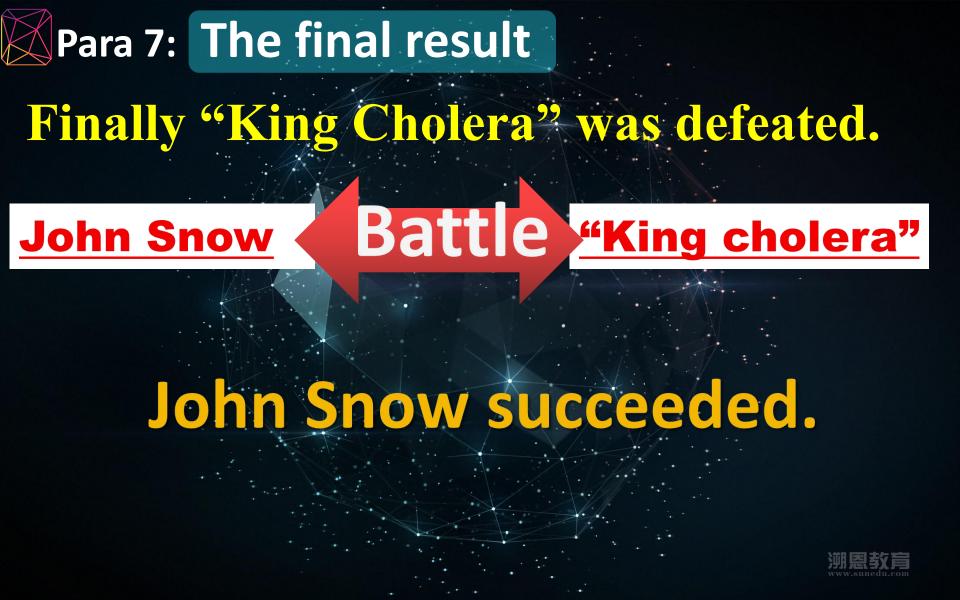
To prove a new idea or suspicion, enough supporting evidence is strongly required.

Thorough(缜密的) observation and analysis are necessary.

Para 6&7: Draw a conclusion: The cause of cholera and suggestions

Q1: What conclusion did John Snow draw with the extra evidence? the cause of cholera **Polluted water carried the germs.** with certainty **Q2:** What did John Snow suggest after that? The source of all the water supplies be examined. The water companies were instructed not to expose people to polluted water







Discussion: What made John Snow successful and great?

➤ Considerate and courageous(勇敢的) qualities
➤ Rigorous(严谨的) scientific research stages
➤ Thorough(缜密的) observation and analysis
➤ Persistent(坚持不懈的) scientific spirit

Equip yourself with valuable scientific questions, persistent scientific spirit and effective methods, and some day you will make it!

What makes the passage logical?

Structure

Writing style

scientific research stages

scientific report

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Writing style	scientific report

Language	Formal language with few adjectives
Speech	
Emotional or not	
Main character	

main character

Factual or not

Structure

Tense

Genius is one percent inspiration, 99 percent perspiration.

— Thomas Edison



THANKS FOR YOUR ATTENTION