



CONSOLIDATION 2 UNITS 6-7-8-9-10

READING SECTION TEXT I

HORRIBLE DISEASE MARKED THE LIFE OF ITALIANS

I. Read the text. Match the topics below (A-F) to the paragraphs (1-6).

- A. starting to use a particular drug to combat malaria
- B. the historical incorrect ideas about the causes of malaria, and the consequences
- C. an Italian expert's intentional restriction on the distribution of quinine
- D. the discovery of the carrier of malaria and the key role of experimentation
- E. a delay in the fight against malaria due to government policies
- F. last words for today's readers

Paragraph 1 _____

Everybody now knows that malaria is carried by mosquitoes. But in the 19th century, most experts believed that the disease was produced by “miasma” or unclear air. Others made a link between swamps, water and malaria, but did not make a leap towards insects. The consequences of these theories were little to combat the disease before the end of the century. Things became so bad that 11m Italians were “permanently at risk”. In malarial zones, the life expectancy of land workers was a terrifying 22.5 years. Those who escaped death were weakened or suffered from painful health problems. The economic impact of the disease was enormous. Epidemics were blamed in the south parts of Italy, and there was a widespread belief that malaria was hereditary. In the 1880s, such theories began to collapse as the frightening mosquito was identified as the real criminal.

Paragraph 2 _____

Italian scientists were able to predict the cycles of fever, but further key discoveries were made in Rome. Giovanni Battista Grassi found that a particular type of mosquito was the carrier of malaria. By experimenting on healthy volunteers, Grassi was able to make the direct link between the insects and the disease. Soon, doctors and scientists made another surprising discovery: the mosquitoes themselves were also infected and not mere carriers. Every year, during the mosquito season, malarial blood was moved around the population by the insects. Definite proof of these new theories was obtained after an extraordinary series of experiments in Italy, where healthy people were introduced into malarial zones but kept free of mosquito bites and remained well. The new Italian state had the necessary information to deal with the disease.

Paragraph 3 _____

A complicated approach was adopted, which made use of quinine –a drug obtained from tree bark which had long been used to combat malaria. Italy introduced a quinine law and a quinine tax in 1904, and the drug was administered to large numbers of rural workers. Despite its terrible side-effects, the drug was successful in limiting the spread of the disease, and in breaking cycles of infection. In addition, Italy set up rural health centers and invested heavily in education programmes. Malaria, as Snowden shows, was not just a medical problem, but a social and regional issue, and could only be defeated through multilayered strategies. Politics were completely changed by the anti-malarial campaigns. It was originally decided to give quinine to all those in certain regions – even healthy people; peasants were often suspicious of medicine being forced upon them. Doctors were sometimes met with hostility and refusal, and many were given a name as “poisoners”.



Paragraph 4 _____

Despite the problems, the strategy was mostly successful. Deaths from malaria fell by some 80% in the first decade of the 20th century and some areas escaped altogether from the disease. War, from 1915-18, delayed the campaign. Funds were used for the battlefields and the fight against malaria became a military issue -the fascist approach to the problem. Mussolini's policies in the 20s and 30s subjected to a serious cross-examination by Snowden. Snowden shows that the regime's efforts to eradicate malaria through land recovery, population removals, and clean-up campaigns were propaganda and not effective. Mussolini fought malaria by targeting the mosquitoes that carried the disease, even though it was often costly to implement mass draining. Italy's clean-up campaign was also aimed at ethnic cleansing, as only certain Italians were chosen to live in the newly developed towns in the previously marshy areas near Rome. The successes of the fascist regime's anti-malaria efforts were fragile because they relied on a centralized approach to eradication. When war came to the drained areas in the 1940s, the disease made a strong comeback.

Paragraph 5 _____

In a particularly stunning section of the book, Snowden skilfully and passionately details how the Nazi armies purposely caused a large-scale malaria outbreak in Lazio, Italy during their retreat from 1934-44. This was the only recorded example of biological warfare in Europe during the 20th century. Alberto Missiroli, an Italian expert on malaria, had a role to play in disaster by not distributing quinine, even though he was aware of the epidemic to come. Snowden claims that Missiroli was already preparing a new strategy –with the support of the US Rockefeller Foundation-using a new pesticide, DDT. Missiroli allowed the epidemic to spread, in order to create the ideal conditions for a massive human experiment. Fifty-five thousand cases of malaria were recorded in the province of Littoria alone in 1944. It is estimated that more than a third of those in the affected area contracted the disease. Thousands, nobody knows how many, died. With the war over, the US government and the Rockefeller Foundation were free to experiment. DDT was sprayed from the air and 3m Italians had their bodies covered with the chemical. The effects were dramatic, and nobody really cared about the toxic effects of the chemical.

Paragraph 6 _____

By 1962, malaria was more or less gone from the whole peninsula. The last cases were noted in a poor region of Sicily. One of the final victims to die of the disease in Italy was the popular cyclist, Fausto Coppi. He had contracted malaria in Africa in 1960, and the failure of doctors in the north of Italy to spot the disease was a sign of the times. A few decades earlier, they would have immediately noticed the signs; it was later claimed that a small dose of quinine would have saved his life. As there are still more than 1m deaths every year from malaria worldwide, Snowden's book also has contemporary relevance. This is a disease that affects every level of the societies where it is violent. It also provides us with "a message of hope for a world struggling with the great present-day medical emergency".

II. Complete the summary of paragraph 1. Use NO MORE THAN TWO WORDS from the text for each answer. There is one extra word.

Before the link between malaria and (1) _____ was established, there were many popular theories circulating among the public, one of which points to (2) _____, the unclean air. The lack of proper treatment affected the country so badly that rural people in malaria infected places had extremely short (3) _____. The disease spread so quickly, especially in the south of Italy, thus giving rise to the idea that the disease was (4) _____. People believed in these theories until mosquito was found to be the (5) _____.



III. Are the statements T (TRUE), F (FALSE) or NG (NOT GIVEN)? Correct the false statement.

1. The volunteers of the Italian experiments that provided assuring evidence were from all over Italy. ____
2. It was possible for laborers to survive in malarial zones. ____
3. The government successfully managed to give all people quinine medication. ____

TEXT II

AN IMPORTANT FIGURE IN THE HISTORY OF SCIENCE

I. Read the text. Match the headings (A-F) to the paragraphs (1-5). There is one extra heading.

- A. Two competing claims to originality
- B. The early years of Newton
- C. Newton's scientific heritage for the entire world
- D. Routine life at a 17th century university
- E. Newton's academic career and receiving a heavy criticism
- F. Newton's greatest achievement in modern science

Paragraph 1 _____

Isaac Newton was born on January 4, 1643, in England. The son of a farmer, who died three months before he was born. Newton spent most of his early years with his maternal grandmother after his mother remarried. Following an education interrupted by a failed attempt to turn him into a farmer, he attended the King's School in Grantham before enrolling at the University of Cambridge's Trinity College in 1661, where he soon became fascinated by the works of modern philosophers such as René Descartes. When the Great Plague shut Cambridge off from the rest of England in 1665, Newton returned home and began formulating his theories on calculus, light and color, his farm the setting for the supposed falling apple that inspired his work on gravity.

Paragraph 2 _____

Newton returned to Cambridge in 1667. He designed the first reflecting telescope in 1668, and the following year he received his Master of Arts degree and took over as Cambridge's Professor of Mathematics. In 1671 he was asked to give a demonstration of his telescope to the Royal Society of London in 1671, the same year he was elected to the prestigious Society. The following year, fascinated with the study of light, he published his notes on optics for his peers. Through his experiments, Newton determined that white light was a composite of all the colors on the spectrum, and he asserted that light was composed of particles instead of waves. His methods were heavily criticized by Robert Hooke, who was unwilling to agree with Newton's follow-up paper in 1675. Newton engaged in heated correspondence with Hooke before suffering a nervous breakdown and withdrawing from the public eye in 1678. In the following years, he returned to his earlier studies on the forces governing gravity.

Paragraph 3 _____

In 1684, English astronomer Edmund Halley visited Newton who was living alone and escaping from other people. Upon learning that Newton had mathematically worked out the movement of the planets around the sun, Halley urged him to organize his notes. The result was the 1687 publication of "Philosophiae Naturalis Principia Mathematica" (Mathematical Principles of Natural Philosophy), which established the three laws of motion and the law of universal gravity. Principia made Newton a star in intellectual circles, and he eventually earned widespread praise as one of the most important figures in modern science.



Paragraph 4 _____

Newton's claims to originating the field of calculus, the mathematical study of change created a nasty dispute. Newton had developed his mathematical concept of 'fluxions' (differentials) in the mid-1660s to account for celestial orbits, though there was no public record of his work. In the meantime, German mathematician Gottfried Leibniz formulated his own theories and published them in 1684. As president of the Royal Society, Newton conducted an investigation that ruled his work to be the fundamental basis of the field, but the debate continued even after Leibniz's death in 1716. Researchers later concluded that both men likely arrived at their conclusions independent of one another.

Paragraph 5 _____

Newton was also obsessed with history and religious doctrines, and his writings on those subjects were collected into multiple books that were published after his death. Having never married, Newton spent his later years living with his niece at Cranbury Park, near Winchester, England. He died on March 31, 1727, and was buried in Westminster Abbey. A giant even among the brilliant minds that drove the Scientific Revolution, Newton is remembered as an extraordinary scholar, inventor and writer. His theories about the movement of bodies in the solar system transformed our understanding of the universe and his precise methodology helped to give birth to what is known as the scientific method. Although his theories of space-time and gravity were eventually replaced by the studies of Einstein, his work remains the foundation stone of modern physics.

II. Complete the summary of paragraphs 2-3. Use NO MORE THAN TWO WORDS from the text for each answer.

Newton created the first reflecting (1) _____ in 1668, and subsequently he was made a professor of mathematics at Cambridge. In 1672, he was interested in the study of light and released his notes on (2) _____. Through his experiments, Newton showed that light was composed of (3) _____, not waves. In 1687, he figured out the elliptical paths of celestial bodies, published *Philosophiae Naturalis Principia Mathematica* with laws of (4) _____ and (5) _____.

III. Choose the best answer.

1. Which of the following is **not** Newton's area of interest?

a. history	b. physiology	c. physics	d. religion
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2. With whom did Newton live as he got older?

a. his wife	b. his friend	c. on his own	d. his niece
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VOCABULARY SECTION

I. Read the following sentences carefully and fill in the blanks with the correct words you choose from the box. Use each word only ONCE. DO NOT change the words in any way.

ideal	illegal	fine line	breaks the law
classify	scandal	punishment	widely

1. The political _____ caused widespread shock and anger among the public, and also damaged the reputation of the government.
2. A great artist knows how to balance on the _____ between originality and imitation to create innovative and timeless works.
3. The laws are designed to protect the rights and freedoms of all individuals, there are serious consequences when somebody _____, too.
4. For the team leader, an _____ candidate for the job would possess not only the necessary skills but also a positive attitude and a strong work ethic.
5. Driving under the influence of alcohol is not only dangerous, but it's also _____ and can result in severe legal consequences.
6. Under law, the severity of the _____ for a crime should be fair and reasonable for the severity of the offense committed.
7. The library uses a system to _____ books by genre and author.
8. After they released the new movie, it was _____ praised by critics for its ground-breaking special effects.

II. Read the following sentences carefully and fill in the blanks with the correct words you choose from the box. Use each word only ONCE. DO NOT change the words in any way. There is one extra word.

intentions	recruit	extent	occurring
urbanization	declare	justice	overlook

1. The president is expected to _____ a state of emergency throughout the eastern region that was affected by the natural disaster.
2. The researchers are studying on the full _____ of the new drug to understand whether it is effective in treating the disease.
3. Unfortunately, even with good _____, sometimes our actions can make a situation worse instead of helping.
4. Regular construction site inspections and assessments can help engineers to identify potential dangers and prevent accidents from _____.
5. The company tries to _____ new talents to join their team and help drive their ambitious growth plans.
6. Lawyers must work to ensure that _____ is served for all members of society.
7. The rapid _____ of the city led to a shortage of affordable housing, the authorities should find a way to solve it.



III. Read the following sentences carefully and fill in the blanks with the correct words you choose from the box. Use each word only ONCE. DO NOT change the words in any way. There are two extra words.

crime	defend	witness	gene
judge	arrested	discrimination	tactic

1. The coach implemented a new _____ during the game which completely changed the team's approach and led them to victory.
2. Following a high-speed chase through the city streets, the police _____ the suspect.
3. Committing a _____, such as theft or assault, can result in serious legal consequences, offenders will be liable to heavy fines, imprisonment, or both.
4. The government has a responsibility to _____ the rights and freedoms of the citizens regardless of their gender, race, age and religion.
5. The defendant was released when the _____ declared him not guilty of the offence.
6. The prosecutor did its best to undermine the credibility of the _____ due to her past criminal history.

IV. Read the following sentences carefully and fill in the blanks with the correct words you choose from the box. Use each word only ONCE. DO NOT change the words in any way. There is one extra word.

absorb	clause	initiative	gather
advanced	determine	reflects	inspection

1. The settlement agreement has a confidentiality _____ that states particular things must or must not be done so the parties cannot discuss the terms of the settlement.
2. The government launched an educational _____ to support scholarships and mentorship programs for the under-represented students at universities.
3. The construction site underwent an _____ by the building inspector to ensure full compliance with safety regulations.
4. The skin can _____ certain chemicals, so it's important to be careful about the products used on it.
5. The technology has _____ significantly in the past decade, making life easier for many people.
6. The company will _____ the price of the product based on market research and production costs.
7. Art critics have expressed the opinion that the painting _____ the artist's unique style and vision.



V. Read the following sentences carefully and fill in the blanks with the correct words you choose from the box. Use each word only ONCE. DO NOT change the words in any way. There is one extra word.

interference	accelerate	unreliable	criticized
satellites	broadcast	productivity	vibration

1. The washing machine started to produce a strange _____ during the spin cycle as if a truck was passing outside.
2. The live _____ of the concert was a huge success, the diehard fans tuned in the programme from all over the world.
3. The radio signals can be disrupted by the _____ from nearby electrical equipment by causing extra unwanted noise.
4. The team of scientists and engineers announced that the new technology is expected to _____ the pace of their scientific discovery.
5. They have successfully launched weather _____ into orbit so they will provide meteorologists with valuable data for forecasting.
6. The experiment results were deemed _____ due to errors in the testing procedure.
7. The teacher _____ the students' essays for their lack of evidence and weak arguments so the essays will have to be rewritten.

VI. Read the following sentences carefully and fill in the blanks with the correct words you choose from the box. Use each word only ONCE. DO NOT change the words in any way. There are two extra words.

device	comprise	observed	commerce
proposed	proof	habitats	vaccine

1. The doctor stated that the patient's symptoms should be _____ to make an accurate diagnosis.
2. The scientist has _____ a hypothesis to explain the results of the experiment based on a few known facts.
3. The festival will _____ different types of music, art, films and performances and it is going to be annual.
4. Drivers mostly prefer to use a _____ to navigate through unfamiliar streets.
5. The forensic team found crucial _____ in the crime scene so that they could link the suspect to the crime.
6. The hiking trail provided a unique opportunity for the zoologists to observe the _____ of various animal species.