



EP.E84 Comprehension: Non-Fiction Set 13

GL ASSESSMENT / CSSE 11+ Entrance English (GL Assessment / CSSE style) · Calculators not allowed ·
about 48 minutes

Total Marks

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Name: _____ Date: ____ / ____ / ____

Answer ALL questions. Show all your working.

Reading by Touch: The Story of Braille

Original non-fiction text written for Revision Library.

Across the world, millions of blind and partially sighted people read every single day, not with their eyes but with the tips of their fingers, moving lightly across patterns of raised dots pressed into paper. This system, now used in almost every language on Earth, is named after the boy who invented it: Louis Braille, who was only fifteen years old when he solved a problem that had frustrated inventors for decades.

Louis was born in 1809 in the small French village of Coupvray, the son of a leatherworker whose workshop was filled with sharp tools. At the age of three, while playing with one of his father's awls, he suffered an accident that badly damaged one eye; an infection soon spread to the other, and by the time he was five, Louis was completely blind. Determined that he should still receive an education, his parents sent him, aged ten, to the Royal Institute for Blind Youth in Paris.

At the Institute, students learned to read using books printed with large, raised letters that had to be traced slowly, letter by letter, with a fingertip; a single page could take several minutes to read, and writing was almost impossible. Everything changed when a former soldier named Charles Barbier visited the school and demonstrated a system he had designed for the French army: a code of raised dots, called night writing, that allowed soldiers to pass silent messages to one another in the dark without lighting a dangerous lamp.

Barbier's military code used cells of twelve dots, arranged in two columns of six, which Louis found frustratingly difficult; a fingertip could not feel an entire cell without moving, which slowed reading down considerably. Working largely at night in his dormitory, using an awl not unlike the one that had blinded him, Louis spent three years experimenting with smaller patterns, until, aged just fifteen, he arrived at a six-dot cell, arranged in two columns of three, that a single fingertip could read in one touch.

"What made Louis's system so remarkable was not only its simplicity, but how completely he understood the problem from the inside," explains Professor Aline Rousseau, a historian of assistive technology. "He was not a sighted inventor guessing at what blind readers might need. He was a blind fifteen-year-old solving his own daily frustration, and that is precisely why it worked so well." Despite its brilliance, the Institute's own director banned the system for years, insisting that blind students should learn to read the same raised-letter text as sighted people.

It was not until 1854, two years after Louis Braille's death from tuberculosis at the age of forty-three, that France officially adopted his system nationwide. Since then, braille has been adapted for nearly every written language, as well as for mathematics and music notation, and today it remains in daily use even as technology advances: modern refreshable braille displays now allow digital text to be felt, dot by dot, in real time. Nearly two centuries after a teenager sat working in the dark, his six small dots continue to open books to readers who cannot see the page.

- 1** According to paragraph 1, how do blind and partially sighted people read braille, and how old was Louis Braille when he invented it?

(Total for Question 1 is 1 mark)

- 2** Find and copy the phrase from paragraph 1 that shows the problem had existed for a very long time before Louis solved it.

(Total for Question 2 is 1 mark)

- 3** Give the meaning of each of the following words as they are used in the passage.

(a) 'frustrated' (paragraph 1) (1)

(b) 'determined' (paragraph 2) (1)

(c) 'considerably' (paragraph 4) (1)

(d) 'remarkable' (paragraph 5) (1)

(Total for Question 3 is 4 marks)

- 4** In what year was Louis Braille born?

(Total for Question 4 is 1 mark)

5 Where was Louis Braille born, and what was his father's occupation?

(Total for Question 5 is 2 marks)

6 Explain, according to paragraph 2, why Louis's parents sent him to the Royal Institute for Blind Youth in Paris.

(Total for Question 6 is 2 marks)

7 Why, according to paragraph 3, could a single page of raised-letter text take several minutes to read?

(Total for Question 7 is 1 mark)

8 Which word class best describes 'silent' as it is used in the phrase 'pass silent messages to one another in the dark' (paragraph 3)?

(a) Choose the correct word class.

(1)

- ☐ A) Noun
- ☐ B) Verb
- ☐ C) Adjective
- ☐ D) Adverb

(Total for Question 8 is 1 mark)

9 Look at paragraph 2: 'he suffered an accident that badly damaged one eye; an infection soon spread to the other, and by the time he was five, Louis was completely blind.' Explain the function of the semicolon in this sentence.

(Total for Question 9 is 2 marks)

10 According to paragraph 3, what name was given to Charles Barbier's code of raised dots?

(Total for Question 10 is 1 mark)

11 Explain the effect of the writer's description of night writing as allowing soldiers 'to pass silent messages to one another in the dark without lighting a dangerous lamp' (paragraph 3).

(Total for Question 11 is 3 marks)

12 Explain the effect of including a direct quotation from Professor Aline Rousseau in paragraph 5.

(Total for Question 12 is 3 marks)

13 According to paragraph 5, what reason does Professor Rousseau give for why Louis's system worked so well?

(Total for Question 13 is 2 marks)

14 In what year did France officially adopt Braille's system nationwide?

(Total for Question 14 is 1 mark)

15 Explain, according to paragraph 5, why the Institute's own director initially banned Louis's system.

(Total for Question 15 is 2 marks)

16 Look at paragraph 4: 'Barbier's military code used cells of twelve dots, arranged in two columns of six, which Louis found frustratingly difficult; a fingertip could not feel an entire cell without moving, which slowed reading down considerably.' Is this a simple, compound or complex sentence?

(a) Choose the correct sentence type.

(1)

- ☐ A) Simple
- ☐ B) Compound
- ☐ C) Complex
- ☐ D) Minor

(Total for Question 16 is 1 mark)

17 At what age did Louis Braille die?

(Total for Question 17 is 1 mark)

18 Look at paragraph 6. Why might modern refreshable braille displays be considered a continuation of Louis Braille's original idea?

(Total for Question 18 is 2 marks)

19 How does the writer structure paragraph 4 to show the process of Louis's invention? Refer to the order of ideas in your answer.

(Total for Question 19 is 3 marks)

20 Identify the connective used in paragraph 6 to introduce the eventual adoption of Braille's system after years of resistance, and explain its effect.

(Total for Question 20 is 2 marks)

- 21** What is the writer's main purpose in this article, and how do the facts, dates and quotations used throughout help to achieve it?

(Total for Question 21 is 4 marks)

- 22** Using evidence from across the whole article, explain what impression the writer creates of Louis Braille's achievement and character.

(Total for Question 22 is 3 marks)

- 23** Explain one way in which the writer's chronological structure, moving from Louis's birth in 1809 to his invention aged fifteen and the system's adoption in 1854, helps the reader understand the article.

(Total for Question 23 is 2 marks)

- 24** 'The Institute was wrong to ban Louis Braille's system for so long.' Using evidence from the whole article, explain to what extent you agree, referring to both perspectives suggested in the article.

(Total for Question 24 is 4 marks)

Mark scheme · EP.E84 Comprehension: Non-Fiction Set 13

Question 1

- **B1** Identifies that people read with their fingertips, moving across raised dots, and that Louis Braille was fifteen when he invented the system
- **Answer: They read with their fingertips, moving across patterns of raised dots, and Louis Braille was fifteen years old when he invented the system.**

Question 2

- **B1** frustrated inventors for decades
- **Answer: frustrated inventors for decades**

Question 3

- (a) **B1** Meaning close to 'left unable to be solved, or annoyingly blocked'
- (a) **Answer: left unable to be solved, or annoyingly blocked**
- (b) **B1** Meaning close to 'firmly decided, resolved to make something happen'
- (b) **Answer: firmly decided, resolved to make something happen**
- (c) **B1** Meaning close to 'by a large amount, significantly'
- (c) **Answer: by a large amount, significantly**
- (d) **B1** Meaning close to 'impressive and worthy of attention'
- (d) **Answer: impressive and worthy of attention**

Question 4

- **B1** 1809
- **Answer: 1809.**

Question 5

- **B1** Coupvray, in France
- **B1** A leatherworker
- **Answer: He was born in Coupvray, France, and his father was a leatherworker.**

Question 6

- **B1** They were determined that he should still receive an education
- **B1** This was despite the fact that he had become completely blind by the age of five
- **Answer: His parents were determined that he should still receive an education, despite the fact that he had become completely blind by the age of five.**

Question 7

- **B1** Because each large, raised letter had to be traced slowly, letter by letter, with a fingertip
- **Answer: Because each large, raised letter had to be traced slowly, letter by letter, with a fingertip.**

Question 8

- (a) **B1** C
- (a) **Answer: C) Adjective**

Question 9

- **B1** Identifies that the semicolon links two closely related independent clauses (each of which could stand alone as a sentence)
- **B1** Explains that the second clause continues the sequence of events introduced in the first, without needing a conjunction
- **Answer: The semicolon links two closely related independent clauses, without a conjunction; the second clause continues the sequence of events described in the first.**

Question 10

- **B1** Night writing
- **Answer: Night writing.**

Question 11

- **B1** Identifies that this shows the real danger soldiers faced, since lighting a lamp could reveal their position
- **B1** Explains that it shows why a touch-based code was so useful, since it worked without light or sound
- **B1** Explains the effect on the reader, e.g. it makes the reader appreciate the ingenuity behind the dot system's military origins before Louis adapted it
- **Answer: This description shows the real danger soldiers faced, since lighting a lamp could reveal their position, and explains why a touch-based code that needed neither light nor sound was so useful. It makes the reader appreciate the ingenuity behind the dot system's military origins, before Louis adapted it for reading.**

Question 12

- **B1** Adds authority and credibility, since she is an expert (a historian of assistive technology)
- **B1** Makes the information feel more personal and engaging for the reader than a plain statement of fact
- **B1** Her specific point about Louis being 'a blind fifteen-year-old solving his own daily frustration' emphasises exactly why the invention succeeded, making the claim more vivid and convincing
- **Answer: Including an expert's direct words makes the information more credible, since Professor Rousseau speaks with authority as a historian of assistive technology; her specific point that Louis was 'a blind fifteen-year-old solving his own daily frustration' also makes the reasons for his success feel more vivid and convincing to the reader.**

Question 13

- **B1** He was not a sighted inventor guessing at what blind readers might need
- **B1** He was a blind fifteen-year-old solving his own daily frustration
- **Answer: Because he was not a sighted inventor guessing at what blind readers might need, but a blind fifteen-year-old solving his own daily frustration.**

Question 14

- **B1** 1854
- **Answer: 1854.**

Question 15

- **B1** He insisted that blind students should learn to read the same raised-letter text as sighted people
- **B1** This shows a resistance to changing the existing method, despite the new system's advantages
- **Answer: He insisted that blind students should learn to read the same raised-letter text as sighted people, showing a resistance to change even though the new system had clear advantages.**

Question 16

- (a) **B1** C
- (a) **Answer: C) Complex**

Question 17

- **B1** Forty-three (43)
- **Answer: Forty-three.**

Question 18

- **B1** They still allow digital text to be felt, dot by dot, with the fingertips, rather than seen with the eyes
- **B1** This shows the underlying dot-based reading system Louis invented is still the basis for reading by touch today, even as the technology has changed
- **Answer: Modern refreshable braille displays still allow digital text to be felt, dot by dot, with the fingertips, showing that the underlying dot-based system Louis invented remains the basis for reading by touch today, even as the surrounding technology has changed.**

Question 19

- **B1** Identifies that the paragraph opens with the limitation of Barbier's twelve-dot system
- **B1** Identifies that it then explains why this was difficult (a fingertip could not feel an entire cell without moving) before describing three years of experimentation
- **B1** Explains the effect, e.g. this takes the reader step by step through the problem to the solution, mirroring Louis's own process and building a sense of achievement
- **Answer: The paragraph opens with the limitation of Barbier's twelve-dot system, explains why it was difficult to read, and then describes three years of experimentation before arriving at the six-dot solution. This takes the reader step by step through the problem to the solution, mirroring Louis's own process and building a sense of achievement.**

Question 20

- **B1** Identifies the phrase 'It was not until'
- **B1** Explains its effect, e.g. it signals how long recognition took, emphasising the contrast between years of resistance and eventual official adoption
- **Answer: The connective phrase is 'It was not until'. It signals how long recognition took, emphasising the contrast between years of resistance and the system's eventual official adoption.**

Question 21

- **Level 1** (1): Basic identification of purpose (e.g. to inform), with little or no use of evidence.
- **Level 2** (2-3): Clear identification of purpose with relevant supporting evidence from the text.
- **Level 3** (4): Well-evidenced explanation of purpose, showing how specific facts, dates and quotations build the writer's case across the whole article.
- **Indicative content:**
 - Purpose is to inform readers about Braille's history and to convey admiration for a remarkable teenage achievement
 - Precise dates (1809, 1854) and the age fifteen give the article factual authority
 - The historical detail (Barbier's night writing, three years of experimentation) creates a sense of process and achievement
 - The expert quotation from Professor Rousseau adds credibility and explains why the invention succeeded

Question 22

- **B1** Identifies that the writer presents Louis as a determined, patient inventor working through a personal problem
- **B1** Supports this with reference to specific detail, e.g. he 'spent three years experimenting with smaller patterns' at night in his dormitory
- **B1** Explains that the closing paragraph, describing braille's continued use today, suggests his achievement has had a lasting, worldwide legacy
- **Answer: The writer creates the impression that Louis Braille was a determined, patient inventor, shown by the detail that he 'spent three years experimenting with smaller patterns' working at night in his dormitory. The final paragraph, describing braille's continued use in nearly every language and in modern refreshable displays, suggests his achievement has had a lasting, worldwide legacy.**

Question 23

- **B1** Identifies that the chronological structure lets the reader follow Louis's whole life story in a clear, logical order
- **B1** Explains the effect, e.g. it builds towards the final point about the system's lasting adoption, which only makes sense once the reader understands the years of resistance that came before it
- **Answer: The chronological structure lets the reader follow Louis's whole story, from his birth and blindness to his invention and its eventual adoption, in a clear, logical order. This builds towards the final point about the system's lasting adoption, which only makes full sense once the reader understands the years of resistance that came before it.**

Question 24

- **Level 1** (1-2): States a viewpoint with little or no justification; minimal or no textual reference.
- **Level 2** (3): Gives a clear opinion supported by relevant reference to at least one viewpoint from the text.
- **Level 3** (4): Gives a well-reasoned, developed opinion that engages with both viewpoints from the text, supported by precise textual evidence.
- **Indicative content:**
 - Case for agreeing: the system was 'remarkable' and worked because Louis understood the problem 'from the inside', so delaying it denied students a better method for years
 - Case for disagreeing: the director may have sincerely believed blind students should read 'the same raised-letter text as sighted people', reflecting genuine (if mistaken) educational belief rather than pure stubbornness
 - Either viewpoint is acceptable if supported by precise evidence from the text
 - Reward answers that weigh the clear eventual success of braille against the director's stated reasoning at the time