

The Weaver of Wonders: A Life of Discovery

Learning objective: To analyse the structure and language of a biography and retrieve information to support inferential understanding.

Read the biography of Elara Vance below carefully. Use the text to answer the questions, ensuring you provide evidence for your inferences.

Born in 1912, Elara Vance was a pioneering engineer who transformed the way we bridge rivers. Growing up in a small, mountainous village, Elara spent her childhood sketching the complex patterns of spiders' webs, fascinated by their delicate strength. Despite facing societal barriers that often excluded women from the sciences in the 1930s, she enrolled in university, graduating with top honours in structural design. Her breakthrough came in 1948 when she unveiled the 'Vance Truss', a lightweight frame that revolutionised bridge construction. Elara was not merely a builder; she was a visionary who believed that infrastructure should harmonise with the natural landscape rather than disrupt it. By the time she retired in 1975, she had designed over fifty structures across the globe, each one a testament to her meticulous planning and creative spirit. Today, her legacy lives on, as young engineers study her original blueprints to solve modern environmental challenges. Elara Vance remains a beacon of resilience, proving that with curiosity and perseverance, one can truly reshape the world.

Word bank: pioneering · chronological · legacy · endeavour · resilience · dedication

1. What specific childhood observation inspired Elara's future career as an engineer? (2 marks) (2 marks)

2. In what year did Elara Vance officially launch her most famous architectural contribution? (1 mark) (1 mark)

3. Why does the author suggest that Elara faced 'societal barriers'? Use evidence from the text to support your inference. (3 marks) (3 marks)

4. Explain why the author describes Elara's bridges as structures that 'harmonise with the natural landscape'. (2 marks) (2 marks)

5. Justify whether you believe Elara Vance’s work is still relevant to engineers today. Refer to the text in your answer. (3 marks) (3 marks)

Draw: Draw a sketch of a bridge that mimics the intricate, geometric patterns of a spider’s web, as Elara Vance might have visualised it.



Extension challenge: Compare and contrast the challenges Elara Vance might have faced in the 1930s with the challenges a young student engineer might face today. Create a table of three key differences and explain why these changes have occurred in society.