

Read the selection below and answer the questions in the *Answer Booklet*.

The Lighthouse Builder



Engineers need to have faith in their designs, but overconfidence can be disastrous. Such was the case with Henry Winstanley, who designed and constructed the world's first open-sea lighthouse on a treacherous group of rocks in the English Channel. He was so certain of his craft that he claimed he would be willing to weather the strongest storm within the confines of the structure. 1

No one knows how many ships were destroyed at Eddystone Reef, but by the end of the 17th century, the sailors and shipowners of Plymouth petitioned for the building of a lighthouse, even though there was general agreement that the task was impossible. Winstanley, furious because of the loss of two of his own five ships on the reef, submitted plans and won the contract to build one—despite a complete lack of qualifications. 2

It was a forbidding challenge. No lighthouse had ever been built out to sea on an isolated rock. It took eight hours of solid rowing to reach the site. Work could only be done at low tide, which was interrupted four times daily by an incoming rush of rising water. And the weather could be terrible. 3

Progress was slow on the 20-metre-high wooden structure, but on November 14, 1698, Winstanley climbed its steps and lit 50 candles in the lantern, for the first time marking the location of the Eddystone. With the bright beacon guiding ships away from the reef, the project was considered successful. At least it was until storm waves damaged the building's sides and reached its top, causing Winstanley to set about repairing it—or, more accurately, rebuilding it from scratch. 4

The “new,” improved lighthouse added 12 metres to the original height and was far stronger, 12-sided and braced by steel and stone. Modern drawings depict it as a fancy and colourful sight, topped by a large weather vane and appointed with a spacious stateroom for guests. With the upgrades completed in spring 1699, Winstanley was satisfied. Ships approaching Plymouth were safe at last. 5

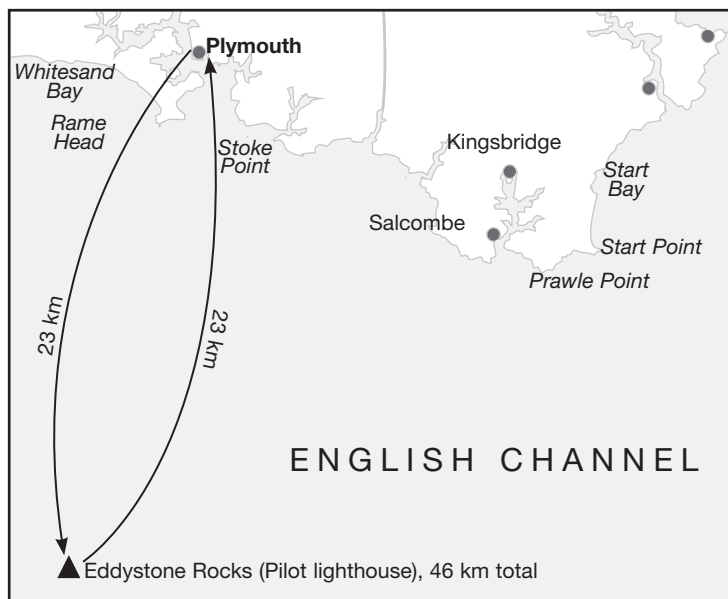
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But skeptics doubted the long-term success of the project. When they claimed it was impossible that the lighthouse should continue to stand in severe weather, Winstanley, filled with pride, boasted that he wished “to be in the lighthouse during the greatest storm that ever was.” 6

His wish was too soon granted. On November 25, 1703, despite a severe windstorm warning, Winstanley insisted on journeying to the lighthouse with five men to make necessary repairs. On the 26th, England was hit by the worst tempest ever recorded there. Hurricane winds toppled 2000 chimney stacks in London alone. Roofs had their tiles ripped off. Windmills were blown around at such speeds that the friction set them on fire. Shipwrecks blocked London Bridge, causing the waters to rise. And the storm had an earthquake-like effect on the masonry and architecture of the isle. 7

When the storm subsided and ships were able to safely sail, those passing by the Eddystone found themselves once again in danger. The reef held no crew, no Winstanley—and no lighthouse. Only a few twisted pieces of metal showed that anything had ever been there. Winstanley’s wish to test his lighthouse had come true—and the building had failed. 8

Nonetheless, Winstanley had proven it possible to save ships approaching Plymouth. The economical benefits of the beacon were so clear that a new lighthouse was completed by 1709. Others followed, including the most recent—a 51-metre-high tower whose light can be seen for nearly 39 kilometres. But of Winstanley’s masterpiece, there remains not a sign. 9



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Multiple-Choice Questions

- 1** Which factor contributed the most difficulty to building the open-sea lighthouse?
- a expense
 - b location
 - c lack of skilled labour
 - d lack of public support
- 2** Which phrase shows why Winstanley was so committed to building the lighthouse in 1698?
- a “Winstanley, furious because of the loss of two of his own five ships” (paragraph 2)
 - b “With the upgrades completed ... , Winstanley was satisfied” (paragraph 5)
 - c “Winstanley had proven it possible to save ships approaching Plymouth” (paragraph 9)
 - d “despite a severe windstorm warning, Winstanley insisted on journeying to the lighthouse” (paragraph 7)
- 3** In 1698, why was the project considered a success?
- a The lantern helped ships avoid the reef.
 - b Winstanley built a structure 20 metres high.
 - c Winstanley was able to make the necessary repairs.
 - d The lighthouse was more spacious than the upgraded one.
- 4** Which word is closest in meaning to “depict” as used in paragraph 5?
- a allow
 - b define
 - c believe
 - d portray

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- 5** Which of the following best demonstrates Winstanley's overconfidence?
- a believing that building the lighthouse was possible (paragraph 2)
 - b constructing on isolated rocks (paragraph 3)
 - c rebuilding the first lighthouse (paragraph 4)
 - d wishing to remain in the lighthouse during a storm (paragraph 6)
- 6** What does paragraph 7 contribute to the passage?
- a a flashback
 - b a conclusion
 - c a turning point
 - d a change in point of view
- 7** What is emphasized by the repetition of "no" in paragraph 8?
- a the new level of danger
 - b the degree of destruction
 - c the calmness after the storm
 - d the mystery of the lighthouse's disappearance
- 8** What is the most likely reason why efforts to build a lighthouse in such a difficult location persisted?
- a to attract tourists to the reef
 - b to gather important weather data
 - c to improve the profitability of the Plymouth port
 - d to experiment with updated construction methods
- 9** Overall, how is the selection organized?
- a chronological order
 - b order of importance
 - c comparison and contrast
 - d opinion and supporting details