

# THE AKASHI-KAIKYO SUSPENSION BRIDGE

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On behalf of The World Association of Technology Teachers

## W.A.T.T.



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1. Complete the article on the Akashi-Kaikyo suspension bridge, by adding the missing words/phrases.

The Akashi Kaikyo Suspension Bridge is the \_\_\_\_\_ suspension bridge in the world and it is probably \_\_\_\_\_ greatest engineering feat.

It took \_\_\_\_\_ workers ten years to construct the bridge, \_\_\_\_\_ tonnes of steel and 1.4million \_\_\_\_\_ metres of concrete. The steel cable used would \_\_\_\_\_ the world seven times.

It has six lanes and links the island of \_\_\_\_\_ and the mainland city of \_\_\_\_\_, a distance of four miles. The concept of building a bridge across the Akashi Straits became urgent after a disaster in \_\_\_\_\_. A ferry carrying over one hundred children sank after colliding with another ferry, in the busy shipping lane. One hundred and sixty eight children and adults died in the disaster. Political pressure for a bridge increased and in \_\_\_\_\_ construction began.

1988	two million	longest	cubic	Awaji	181 000
	circle	Japan's	1955	Kobe	

2. How wide is the Akashi Straits at the bridge site? What is the deepest measurement of water at the bridge site ?

WIDTH: \_\_\_\_\_ DEPTH: \_\_\_\_\_

3. Why did the Japanese engineers build a complex model of the bridge, before construction of the full size bridge could start?

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4. Why is the deck of the bridge manufactured from triangulated sections?

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5. Complete the drawing of the Akashi-Kaikyo suspension bridge, shown below. Add colour and shade. Add labels to identify the most important parts.

