

# Opera House

## Think



- Where is this?
- What happens here?
- Is it a boat or a building?
- What does the shape remind you of?



## Respond



Write a brochure aimed at tourists, encouraging them to visit Sydney and the Opera House in particular. What other sights are there to see in the city? Include illustrations and think of a catchy title for your cover.

## Solve



The length of a rectangular Opera House is 187 metres and has a width of 115 metres. What is its perimeter?

**Challenge:** Can you work out the area of the building?

## Discuss



The Sydney Opera House was completed in 1973 with a final cost of \$102 million. While this is an incredible landmark building, could the money have been put to better use? Is the amount of money spent on buildings such as this justified? Are there better causes to be funded? Should we ignore how much is spent on public buildings and just enjoy them?

## Discover



**Fact:** The Sydney Opera House was made a UNESCO World Heritage Site in 2007, meaning it is recognised as a place of cultural or physical significance.

**Question:** How many World Heritage Sites are there in Australia? Can you find any World Heritage Sites in the UK? What are their similarities or differences?

## Reimagine



Your local council have given permission for an opera house to be built near where you live. Can you design an original and appropriate building?

# Opera House Answers

What is its perimeter?	Can you work out the area of the building?
<p>There are different ways of calculating this:</p> $\text{Perimeter} = 187\text{m} + 115\text{m} + 187\text{m} + 115\text{m} = 604\text{m}$ <p>or</p> $\text{Perimeter} = 187\text{m} + 115\text{m} = 302\text{m} \times 2 = 604\text{m}$	$\text{Area} = 187\text{m} \times 115\text{m} = 21\,505\text{m}^2$