

WHERE'S THE BEACH?

Session 1, Explore: Wave Energy Calculation Worksheet

To determine the energy contained in a wave, use the following equation based on the height of a wave:

$$\text{wave energy} = \text{wave height squared or wave energy} = \text{wave height}^2$$

Example calculation for a wave that is 2.5 meters high:

$$\text{wave energy} = (2.5 \times 2.5) = 6.25$$

1. Use the following wave heights to calculate the wave energy:

Height (m)	Wave energy (= Wave height ²)
0	
0.1	
0.5	
1.25	
2.5	
4	
6	
9	
14	

2. Using graph paper, draw a graph showing the wave energy for the different sized waves in the table.