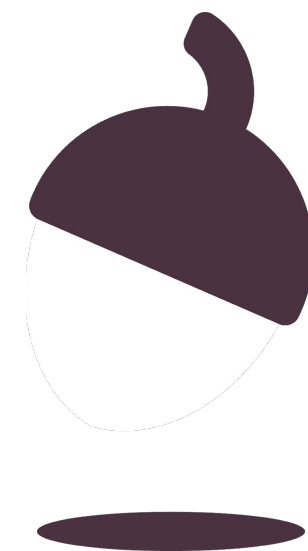


Physics - Key Stage 4 - Forces

Pressure in Fluids (HT Only)

Mr Saville



OAK
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ACADEMY

You Do - Independent Practice

1. A small dam has a wall of 20 m. What is the difference in pressure between the top and bottom of the water in the reservoir?

2. A water tower is 400m tall. What is the pressure at the bottom of the tower?

$$g = 9.8 \text{ N/kg}$$
$$\rho = 1000 \text{ kg/m}^3$$

3. The titanic sunk in 1911 and is 3000 m below the surface. What is the pressure at this depth?



You Do - Independent Practice

1. A diver experiences a pressure of 620000 Pa. At what depth is the diver at? ($g = 9.8 \text{ N/kg}$ and density of water = 1000 kg/m^3)
2. A diver experiences 160,000 Pa of pressure on his body. If the density of seawater is 1025 kg/m^3 , then how deep is he swimming? ($g = 9.8 \text{ N/kg}$)
3. Calculate the height of a tube of mercury (13600 kg/m^3) that exerts a pressure of 17000 Pa on a surface. ($g = 9.8 \text{ N/kg}$)



Independent Practice

The pressure of a liquid increases.....

The pressure along a horizontal line in a liquid is.....

The pressure in a liquid does not depend on.....

Upthrust is.....

When an object is submerged, where is the greatest pressure is.....

