Physics - Key Stage 4 - Forces

Pressure in Fluids (HT Only)

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OAK NATIONAL 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 N/kg
p = 1000 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 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 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 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.....