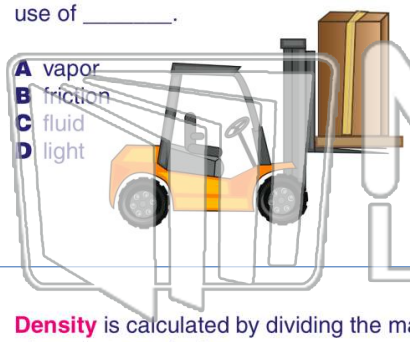
Forces in fluids

Sci H

Name_____ Class_____ Date_____

1 All **hydraulic** equipment requires the use of _____.



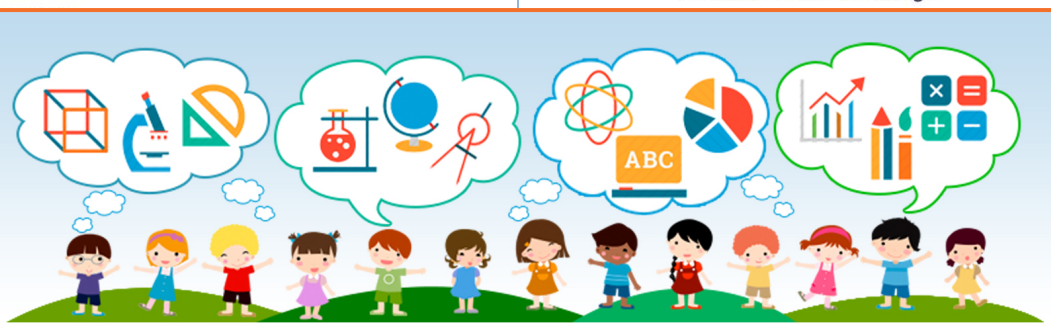
A vapor
B friction
C fluid
D light

2 In the diagram below, a layer of **oil** sits on top of a layer of **water**. The explanation for this is _____.

A the density of the oil is less than the density of water
B the density of water is less than the density of oil
C the densities of water and oil are the same
D the densities of both the water and oil are changing

3 **Density** is calculated by dividing the mass of a substance by its _____.

4 If the density of an object is **10 g/cm³** and its mass is **200 g**, then its volume would be which of the following?

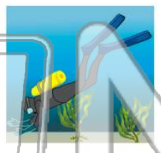


5

7 his surface area is **5** square meters?

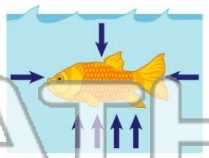
$$\text{pressure} = \frac{\text{force}}{\text{surface area}}$$

A 500 Pa
B 1000 Pa
C 1500 Pa
D 2000 Pa

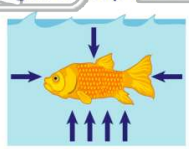


object receives the **greatest pressure** from the water?

A top
B bottom
C left side
D right side

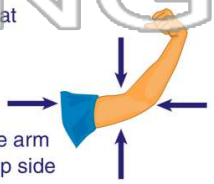


9 Imagine a fish swimming in a deep lake. What **two forces** are acting on this fish at the same time?



A buoyant force and gravity
B density and pressure
C buoyant force and volume
D density and volume

10 In the picture below, what statement about air pressure is **correct**?



A it is the same on the top and bottom of the arm
B it is greater on the top side of the arm
C it is greater on the bottom of the arm
D air does not exert pressure

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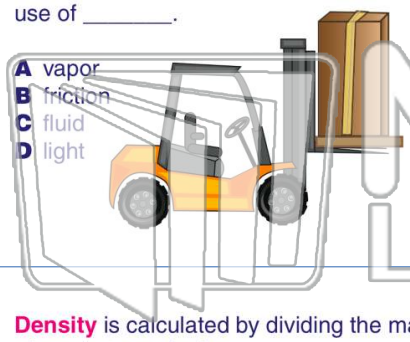

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B

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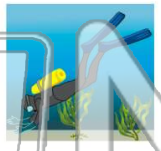
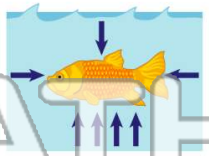


D

object receives the **greatest pressure** from the water?



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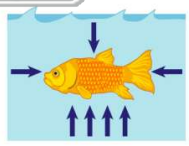

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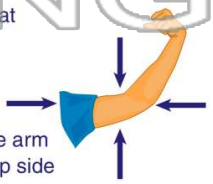

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