

Archimedes' principle

Task1. Write down the discoveries made with the experiences of the orange and the candle. You have to fill in the gaps with the following words:

Not all the words have to be used; nor all the gaps have to be filled with these words.

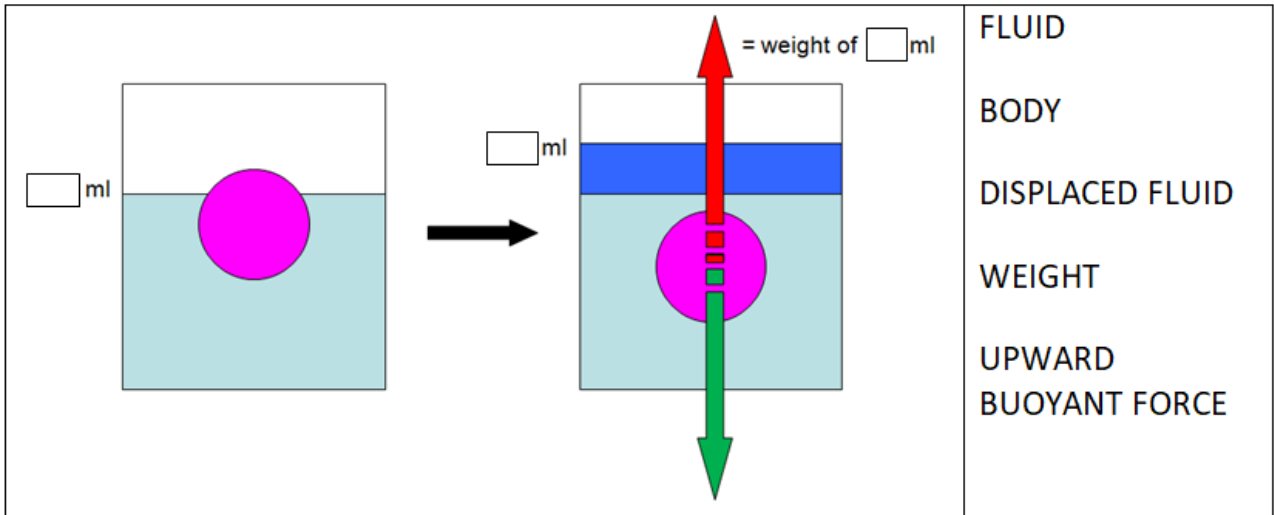
*water – introduce - displaced water –
container - orange - rise - water level - floats*

<p>1) When the _____ is introduced in the graduated cylinder with _____, the orange _____ and the water level _____.</p>	
<p>2) The original water level was _____ and the final water level is _____, so the _____ has risen _____ ml.</p>	
<p>3) The orange has moved some quantity of _____. This water is called the _____.</p>	
<p>4) The candle has moved more quantity of _____ because it is bigger than the orange.</p>	

On the right, make a drawing to show each discovery mentioned.

Task 2. Match the words around the drawing with its corresponding image.

<i>Archimedes' principle</i>	When a <u>body</u> is <u>immersed</u> in a <u>fluid</u> , it experiences an <u>upward buoyant force</u> equal to the <u>weight</u> of the <u>displaced fluid</u> .
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Task 3. Convert the Archimedes' principle into the physical formula.

<i>Archimedes' principle</i>	When a <u>body</u> is <u>immersed</u> in a <u>fluid</u> , it experiences an <u>upward buoyant force</u> equal to the <u>weight</u> of the <u>displaced fluid</u> .
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B =

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$B = d_L g V$

Remember:
W =

d = m/V so m =

Upward buoyant force

Gravity

Volume of the fluid that has been displaced

Density of the liquid

Task 4. Check the units!