Name: _____ Date: _____

Forces in Fluids

Buoyant Force

Match the key term to its corresponding fact by drawing a line.

Buoyant force	When something does not sink to the bottom or rise to the surface; it is suspended in water.
Archimedes' principle	pushed up in the water
density	The weight of displaced water equals the buoyant force of the water.
floating	The upward force that a fluid exerts on all objects in the fluid
buoyed up	The mass of an object divided by its volume.

True or False

1. True or false: If an object is buoyant, will it sink.

   true false

2. True or false: fluid pressure increases with depth.

   true false

3. True or false: You can find the buoyant force by measuring the weight of the water that an object displaces.

   true false

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4. True or false: An object will float if its weight is greater than the buoyant force.

true false

5. True or false: An ice cube is less dense than water.

true false

Fill in the Blank

Word Bank

ballast tanks decreases swim bladder volume increases

1. If volume _____ and mass stays the same, density _____.
2. Ships can float because of their hollow shape. The hollow shape increases the _____ that the steel takes up without increasing the mass.
3. Submarines have _____ that can open to let seawater flow in, increasing its density.
4. Most bony fish have a _____ that can fill and release gases allowing the fish to change its density.

Explain

How do most bony fish change their overall density?

_____

_____

_____

_____