Dolphin can leap through the air and dive back into water smoothly and effortlessly.





Solid objects can move easily though liquids and gases. The particle theory states that fluid properties of water and air allow water particles and air particles to move out of the way solids.

You cannot push through a solid substance, like ice, since the particles are held strongly together and will not push aside.



We sometimes confuse weight with mass. When you step on a scale at home you are getting your mass.

Force - is a push or pull.

Gravity - is a natural force that causes an object to move toward the center of the earth.

Weight - is the force of gravity exerted on an object.

- Measured in Newtons (N)

The pull of gravity everywhere on an earth' surface is the same. It is a downward force of 9.8 N for every kilogram of its mass. (9.8N/kg)

Ex) A bag of sugar has a mass of 2kg
$$2 \text{ kg x } 9.8 \text{ N} = 19.6 \text{ N}$$
 BUT weighs 19.6 N 1kg