

Melting ice

Archimedes' principle: The ice is buoyed up by the weight of the displaced liquid water. Hence the melted ice occupies exactly the volume that was underwater back when the ice was solid. The water level in the cup neither rises nor falls.

(Deniers of global warming sometimes use this principle to point out that “even if the Arctic ice cap melts completely, it will not increase sea level!” This is true but irrelevant. The increase in sea level will result because of the melting of ice on Antarctica. Are such deniers really as dumb as they claim to be?)