

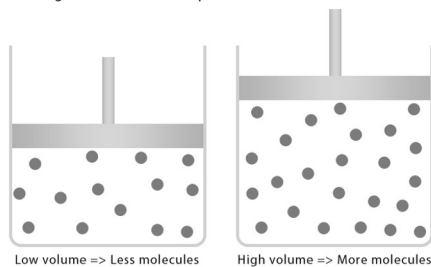
## Avogadro's Law

A gas at constant temperature (*particle speed*), pressure (*number of collisions*), and volume (*size*) will always have the same number of particles.

Avogadro's Law was the first time different gases would have the same number of particles at the same conditions leading to **mol**

### Avogadro's Law

At constant temperature and pressure, equal volumes of all gases contain an equal number of molecules

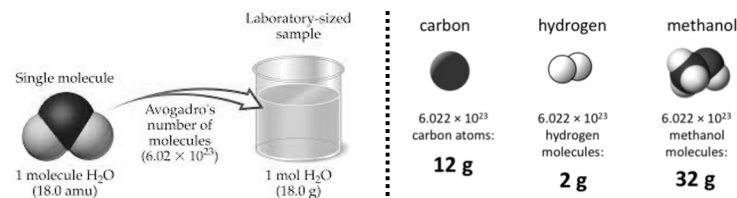


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## The mol and Avogadro's Constant

One **mol** of a particle is equal to the number of particles that make the atomic mass of the particle when written in grams (*g*).



Avogadro's Constant ( $N_A$ ) 1 mol of any particle contain exactly  $6.022 \times 10^{23}$  particles of the matter

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