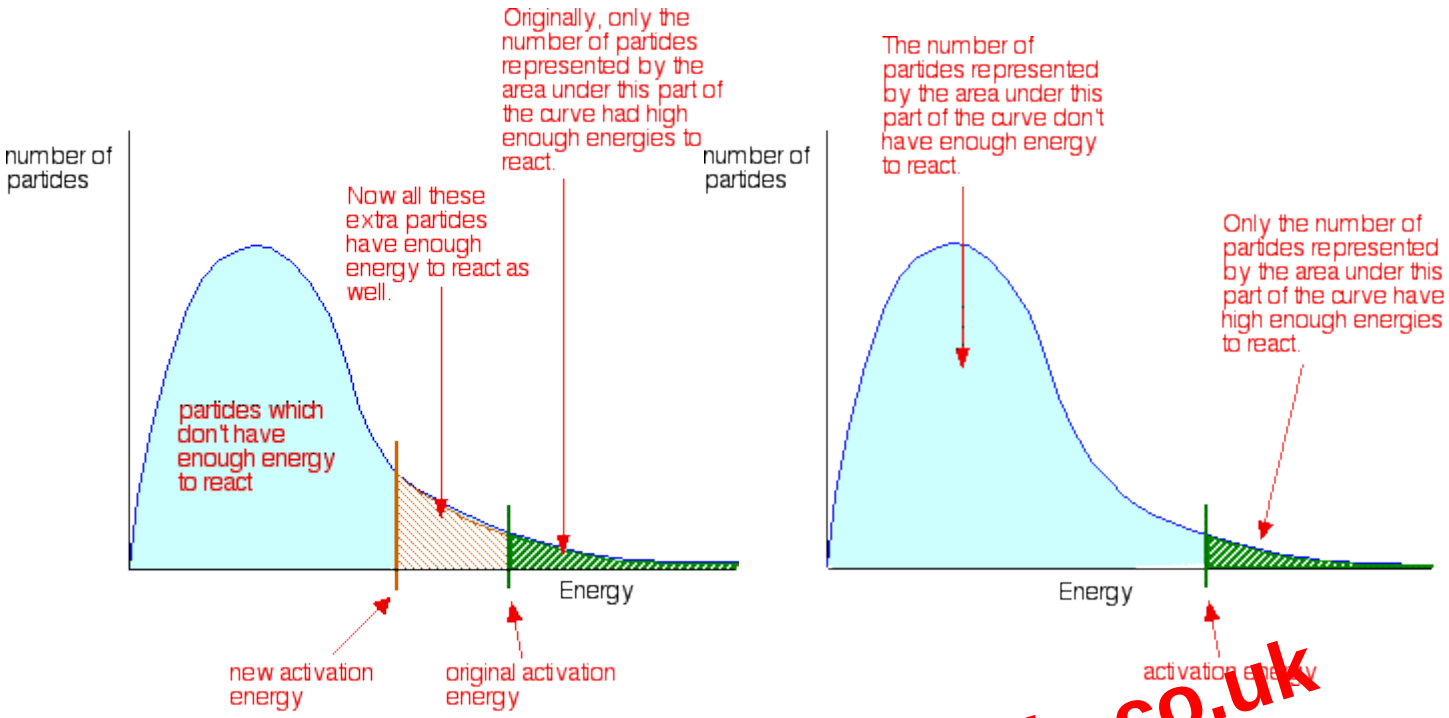

Source: (http://www.chemguide.co.uk/physical/basicrates/catalyst.html)

EFFECT OF MECHANISM ON RATE

A reaction mechanisms explains how bond are broken and made during a reaction through several steps.

An example is the reaction between 2-bromo-2-methylpropane and hydroxide ions.

The bromine atom is replaced by an OH group in the reaction.

The Carbon-Bromine bond breaks to give ions. In the presence of high concentration of hydroxide ions, a new covalent bond will be formed very quickly between the carbon and oxygen, due to the successful rate of collision.
This mechanisms show how the reaction occurs in two steps and how the bonds are broken and new ones are formed. It shows how the the first rate of reaction is