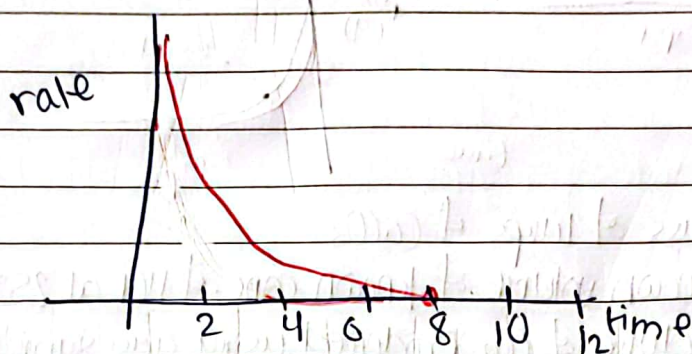


Draw rate vs time graph for this reaction:-



• Factors that effect rate of reaction:-

- ① Temperature.
- ② s.n
- ③ Conc. (amount)
- ④ Pressure
- ⑤ light intensity
- ⑥ Catalyst.

① Temperature:-

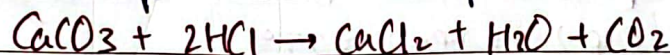
* state how the temp. affect rate of reaction.

As the temp increases, the rate of reaction increases.

* Explain how the temp. affect rate of reaction.

As the temp increases, the particles gain k.e. so move faster, the particles will have energy equal to or greater than E_a (activation energy) so more effective collisions per unit time, so faster rate of reaction.

* plan an exp. to show how temp. affect rate of reaction.



Exp 1: $m = 20\text{g}$
" lumps

$V \text{ HCl} = 0.1 \text{ dm}^3$

$M \text{ HCl} = 1 \text{ mol/dm}^3$

Temp = 25°C

Exp 2: $m = 20\text{g}$
" lumps

$V \text{ HCl} = 0.1 \text{ dm}^3$

$M \text{ HCl} = 1 \text{ mol/dm}^3$

Temp = 50°C .