

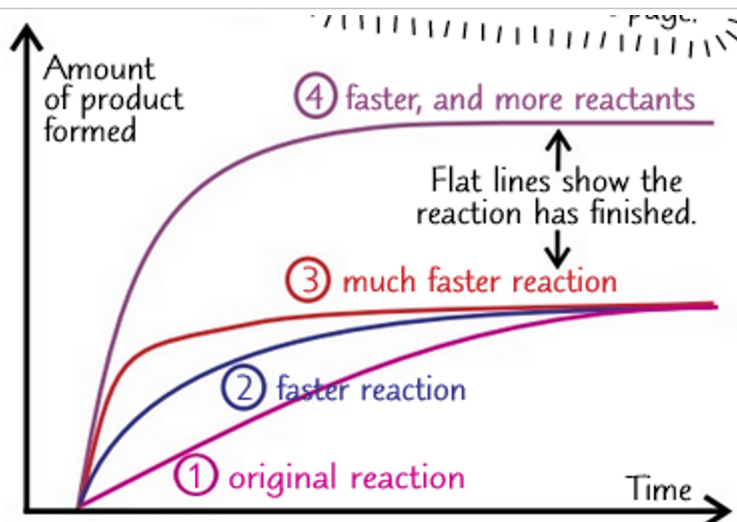
Rates 001 Rates of Reaction

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Lots of different speeds of reactions:

- Slow - rusting or acid rain on buildings
- Medium - magnesium with acid
- Fast - Burning and explosions

What is happening in these graphs?



Rates of reaction is all about collisions:

You need a collision for a reaction to occur. And you need enough energy to break the bonds in the reactants - this is called the 'Activation Energy'.

You can speed up the reaction by:

- Increasing the temperature
- Increasing the concentration (so more particles in the solvent) or pressure if a gas
- Increasing the Surface area
- Using a catalyst

Catalysts

Speed up reactions without taking part in them - so they are not part of the equation for the reaction

Work by decreasing the activation energy by providing an alternative pathway through the reaction

Biological catalysts are called enzymes

