



6.2 Factors Affecting the Rate of Chemical Reactions



What factors affect the rate of a reaction?

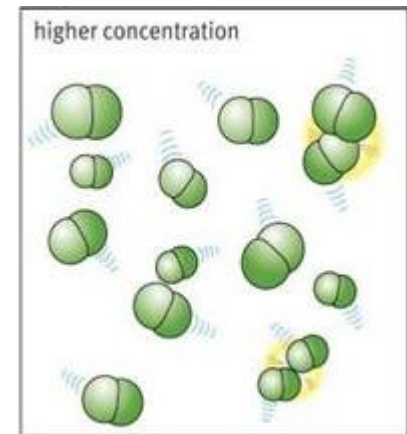
- Temperature
- Concentration
- Surface Area
- Presence of a catalyst

What effect does temperature have on the rate of a reaction?

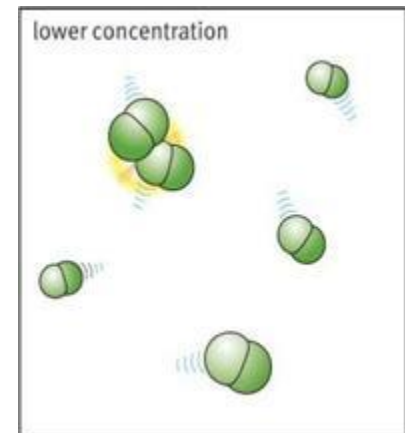
- When the temperature is increased:
 - Reaction rate increases
 - Molecules are moving around faster which increases collision frequency
- When the temperature is decreased:
 - Reaction rate decreases
 - Molecules are moving more slowly which decreases collision frequency

What effect does concentration have on the rate of a reaction?

- When the concentration is increased:
 - Reaction rate increases
 - Molecules are moving around faster



- When the concentration is decreased:
 - Reaction rate decreases
 - Molecules are moving more slowly



What effect does surface area have on the rate of a reaction?

- Define surface area:
 - the amount of area exposed on a material
- The greater the surface area the faster the reaction.

Which has more surface area a solid block or a powder? Why?

- The powder has more surface area because it has more small particles than the single solid block.



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What effect does a catalyst have on the rate of a reaction?

- A catalyst speeds up a reaction without being used up in the reaction.



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What do we call catalysts in the human body? Provide an example.

- Enzymes
- Example: amylase