

Factors that Affect reaction Rates

-Kinetic Molecular theory

constant moving

higher temp --> moves faster

-in order for reactions to occur, collisions need to be effective at breaking the bonds of the reactant molecules

-two ways we can make a reaction go faster

1) increase the number of collisions

2) increase the fraction of collisions that are effective

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Temperature

-average speed of the particles increases as the temp increases

-larger number of particles that collide with sufficient energy

Concentration

-higher the concentration, the more molecules are packed into a specific amount of space

-increases the number of collisions that can occur

Surface Area

-amount of area that is exposed to be able to react

-increasing the number of particles 'available' to react increases the possibility of a collision

Catalyst

-a chemical substance that provides an easier way for the reaction to occur by reducing the amount of energy needed to break the bonds.

-catalysts increase the number of collisions that are effective

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Attachments

rate of reaction data chart.xls