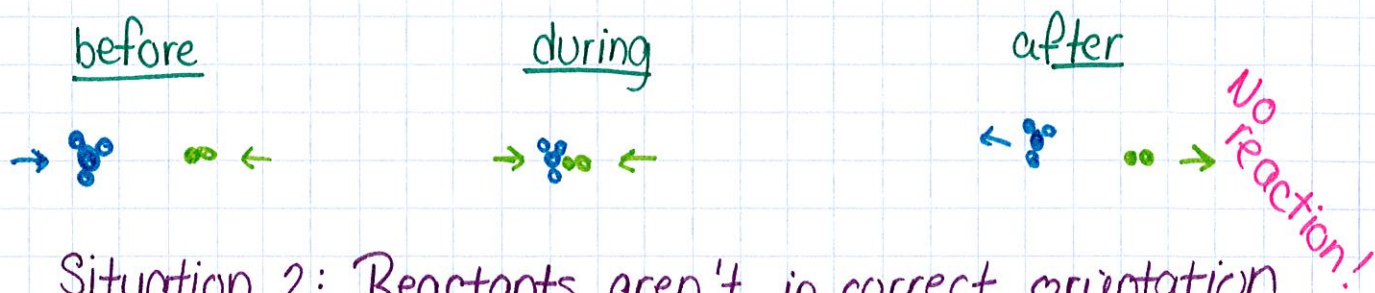


# Kinetics (Reaction Rates)

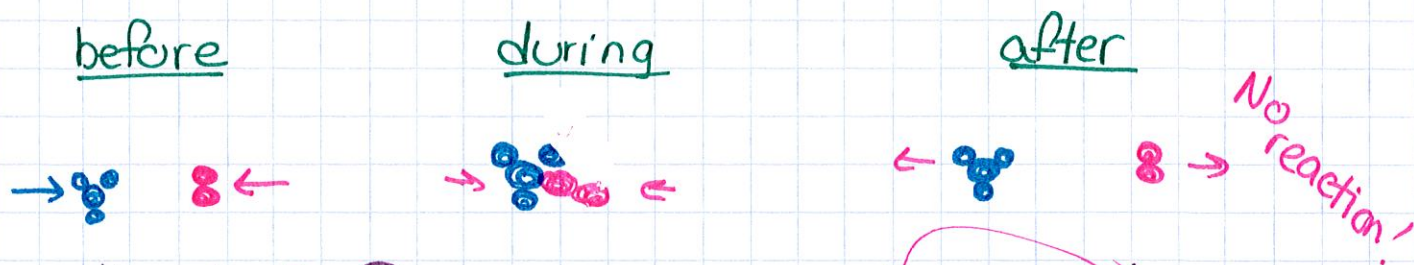
## - Collision Theory

In order to have a reaction occur, the particles must collide with enough energy and in the correct orientation.

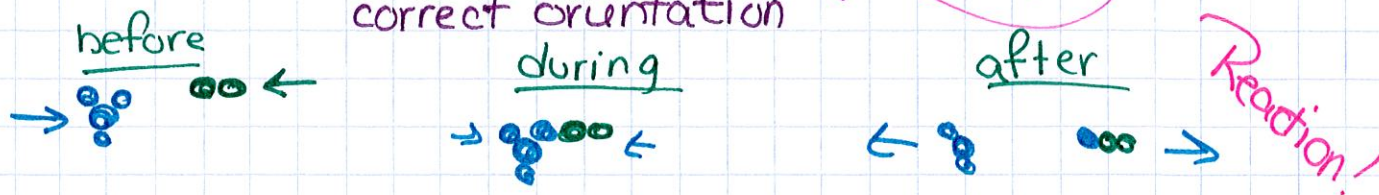
Situation 1: Reactants that don't have enough energy



Situation 2: Reactants aren't in correct orientation



Situation 3: Reactants have enough energy & correct orientation



Activation Energy ( $E_a$ ) - energy needed for reactants to collide & form products

