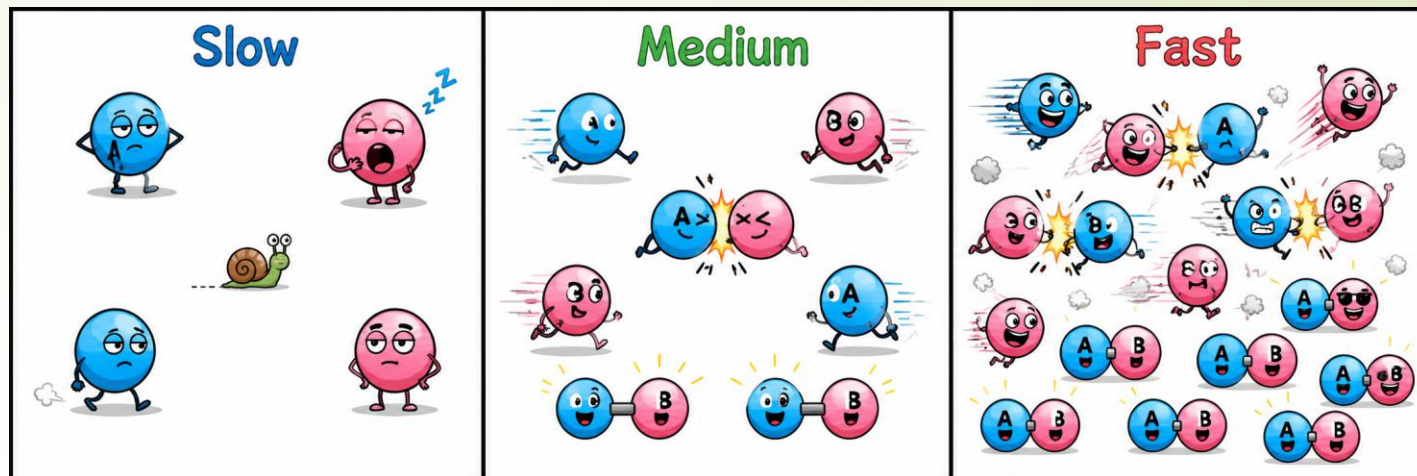


Auburn Mountainview

Karl Steffin, 2006

7/29/2026



Reaction Rates



By end of this unit I can...

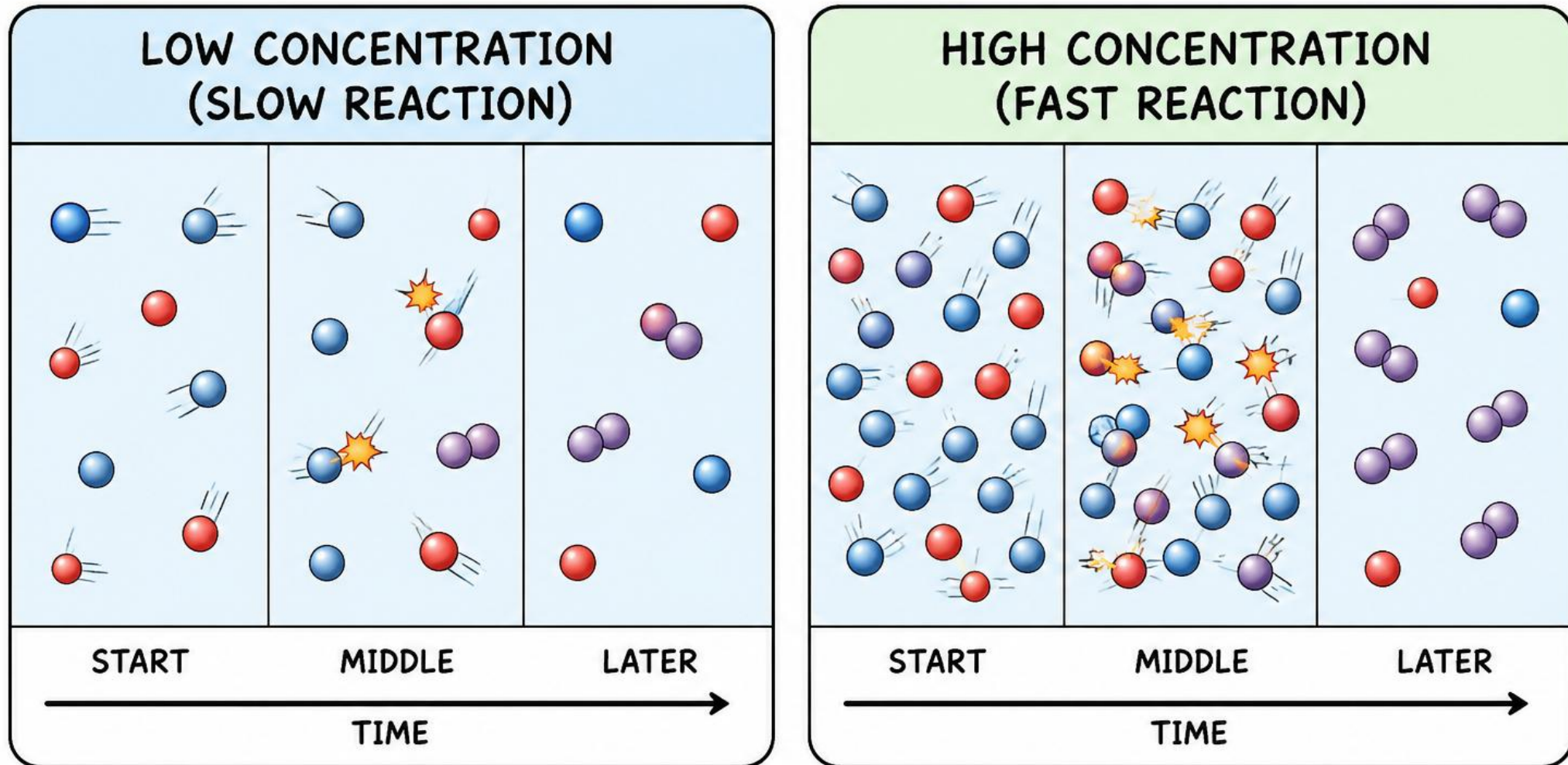
- **A.1 Construct and/or evaluate particulate representations that illustrate how changes in concentration, temperature, or surface area of reactants alter the rate of a chemical reaction.**
- **A.2 Explain how experimental changes in the rate of a reaction are related to changes in the concentration, temperature, or surface area of the reactants.**

How much longer?

- The Statue of Liberty took about 25 years to go from bright copper to green.
- The Chicago Picasso took about 10 years to go from grey to its current deep brown color.
- Reaction Rates, the speed at which the chemical reaction happens, depends on some key factors.



CONCENTRATION & REACTION RATE



= REACTANT A



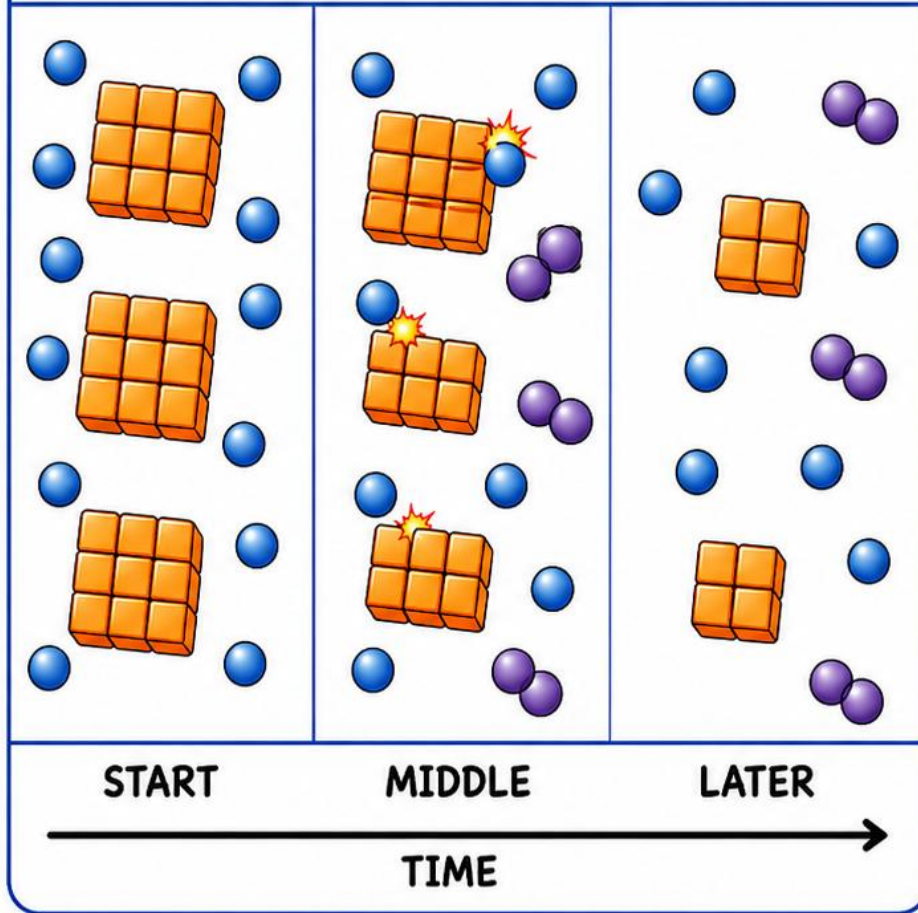
= REACTANT B



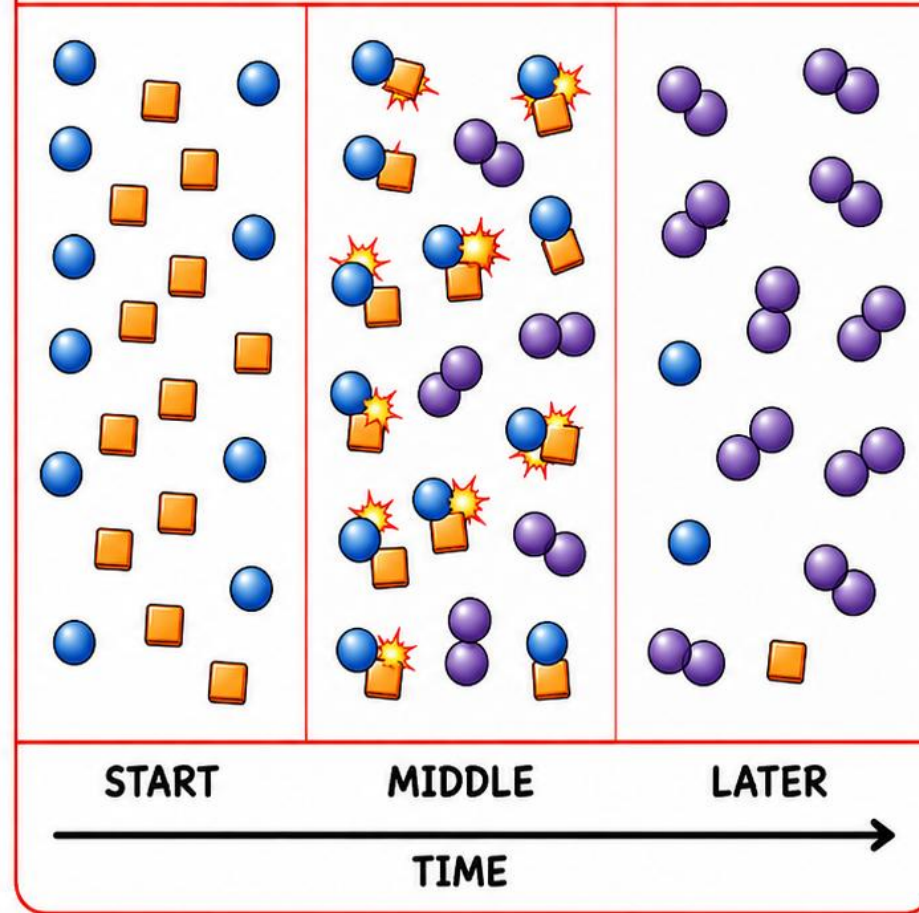
= PRODUCT C

SURFACE AREA & REACTION RATE

LOW SURFACE AREA (SLOW REACTION)



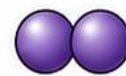
HIGH SURFACE AREA (FAST REACTION)



= REACTANT A



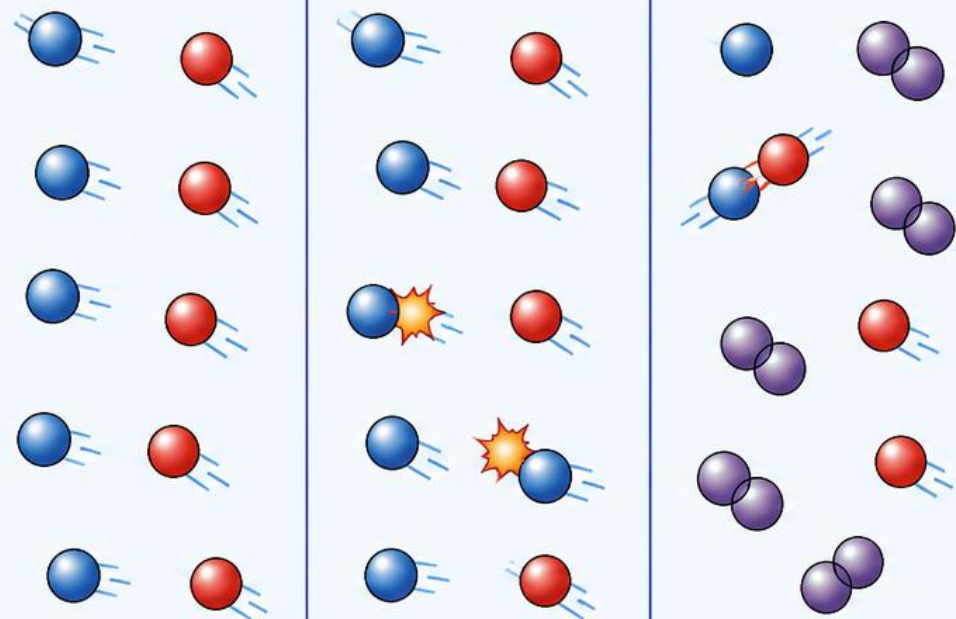
= REACTANT B



= PRODUCT C

TEMPERATURE & REACTION RATE

LOW TEMPERATURE (SLOW REACTION)



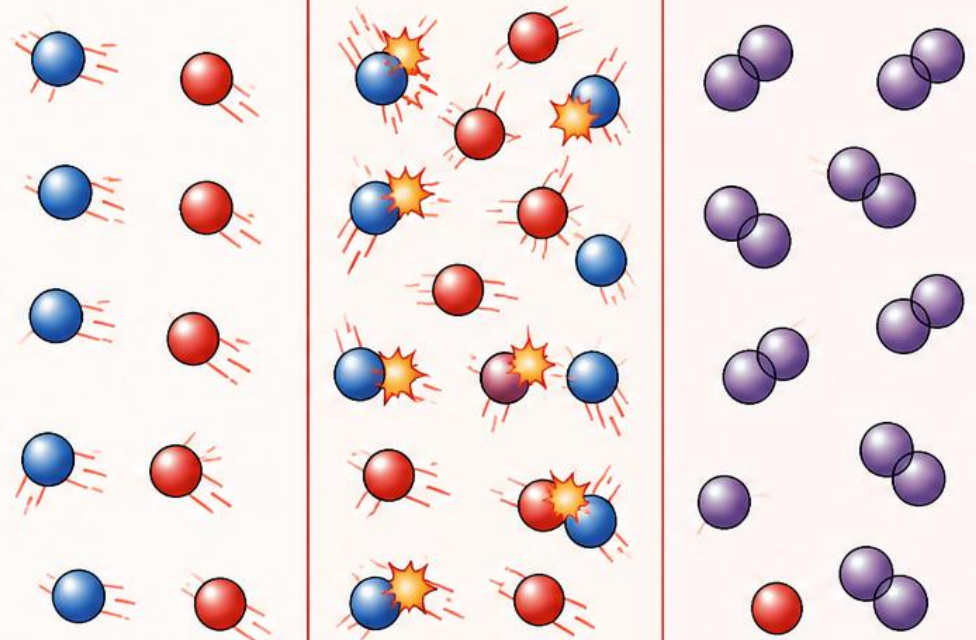
START

MIDDLE

LATER

TIME

HIGH TEMPERATURE (FAST REACTION)



START

MIDDLE

LATER

TIME



= REACTANT A



= REACTANT B



= PRODUCT C