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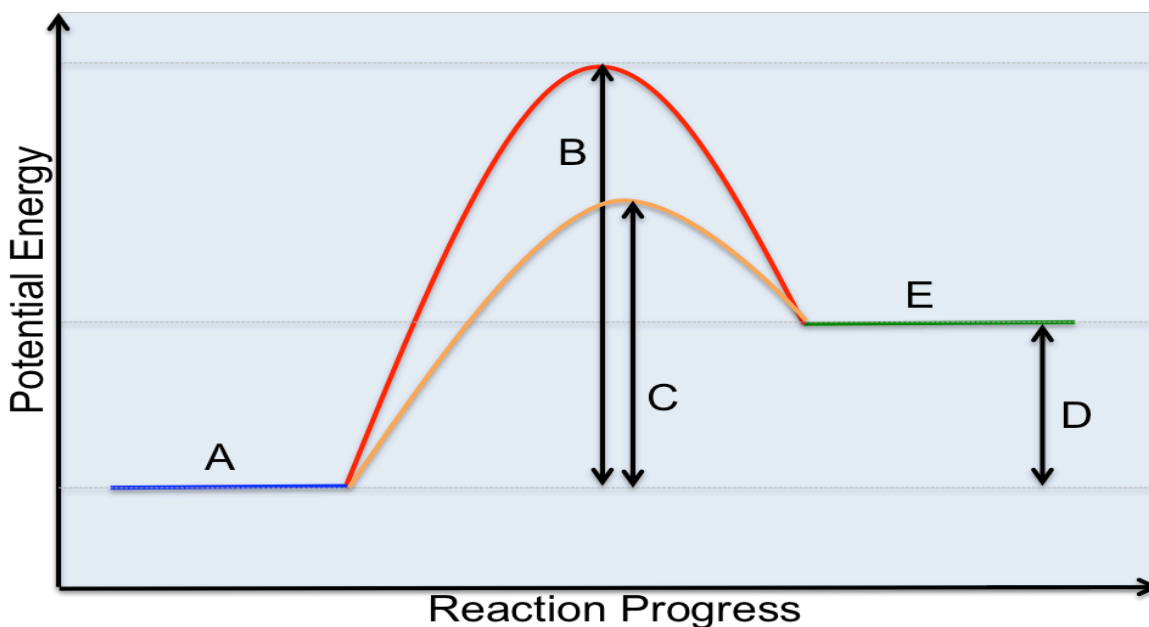
SCH4U: 3-4D: Rates of Reaction Practice Assignment

1. Describe 4 ways to increase the rate of a chemical reaction. Provide an explanation for how each method increases the rate.

2. Explain, using collision theory, how 2 reactant molecules could collide without a reaction occurring in which they are converted to product molecules.

Name _____

3a) On the energy diagram below, which depicts a reversible reaction, match the letter to the correct term:



- ___ Activation energy
- ___ ΔH
- ___ Products
- ___ Activation Energy (with catalyst)
- ___ Reactants

3b) Is the reaction depicted above endothermic or exothermic?

3c) Would you expect the forward or reverse reaction above to have a faster rate of reaction? Explain.

Name _____

4. Describe the following terms:

a) Reaction mechanism

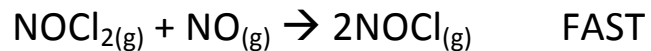
b) Elementary step

c) Reaction intermediate

d) Rate determining step

Name _____

5. A reaction has the following elementary steps:



Determine the *overall reaction equation* and identify any *reaction intermediates* and the *rate-determining step*