Topic	Activation energy and energy profiles	**Level**	GCSE (or any other course for students aged 14-16)
Ouctomes	1. Students can relate energy profiles to reaction rates 2. Students can relate energy profiles to enthalpy changes 3. Students can draw energy profiles for catalysed reactions		

Instructions – students work in pairs to interpret energy profile diagrams

1. Put these reactions in order of how quickly you think they would occur. Start with the reaction that would occur at the fastest rate.

1.
2.
3.
4.

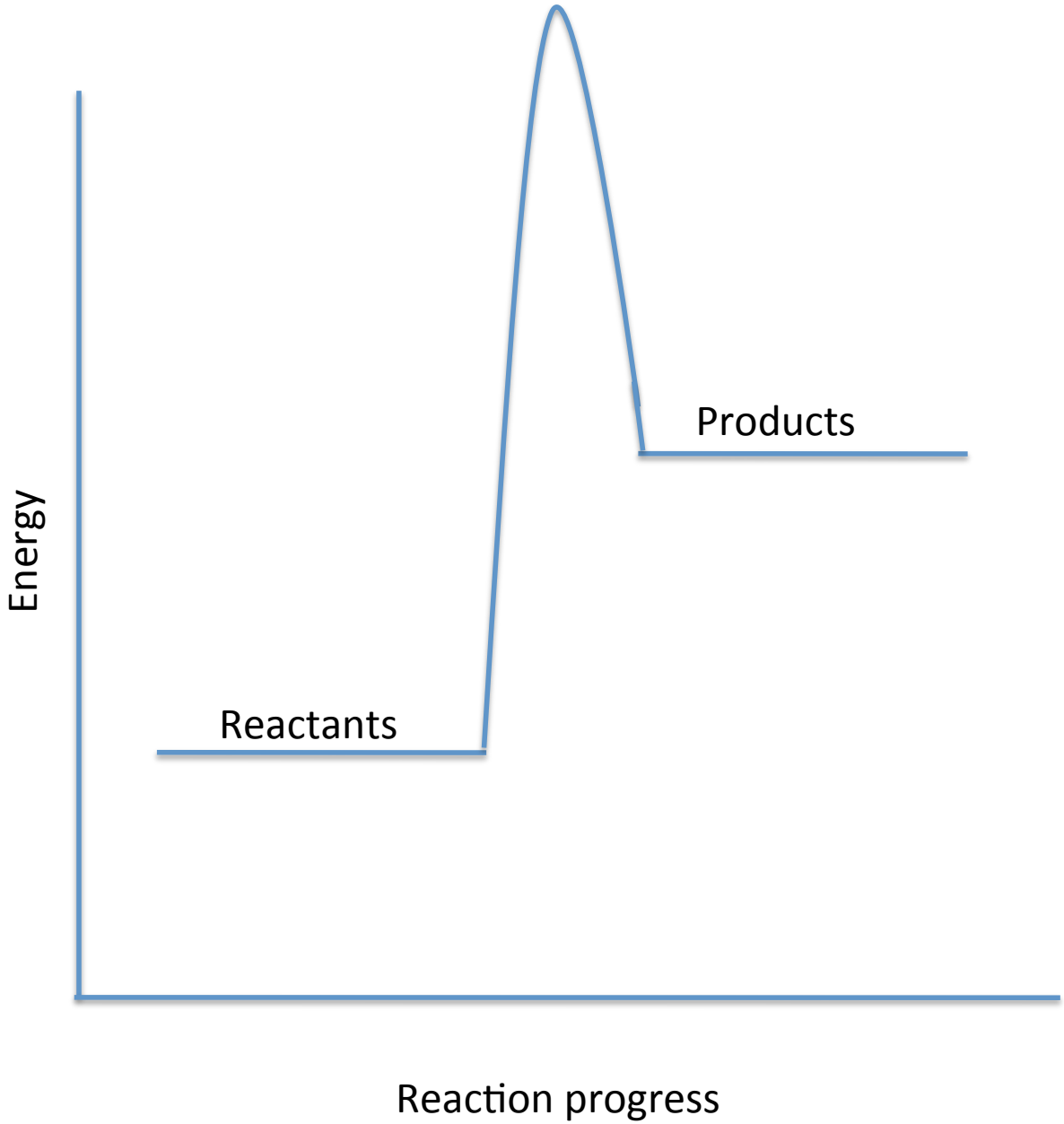
2. Put these reactions in order of increasing enthalpy change. Start with the reaction that would release the most heat energy.

1.
2.
3.
4.

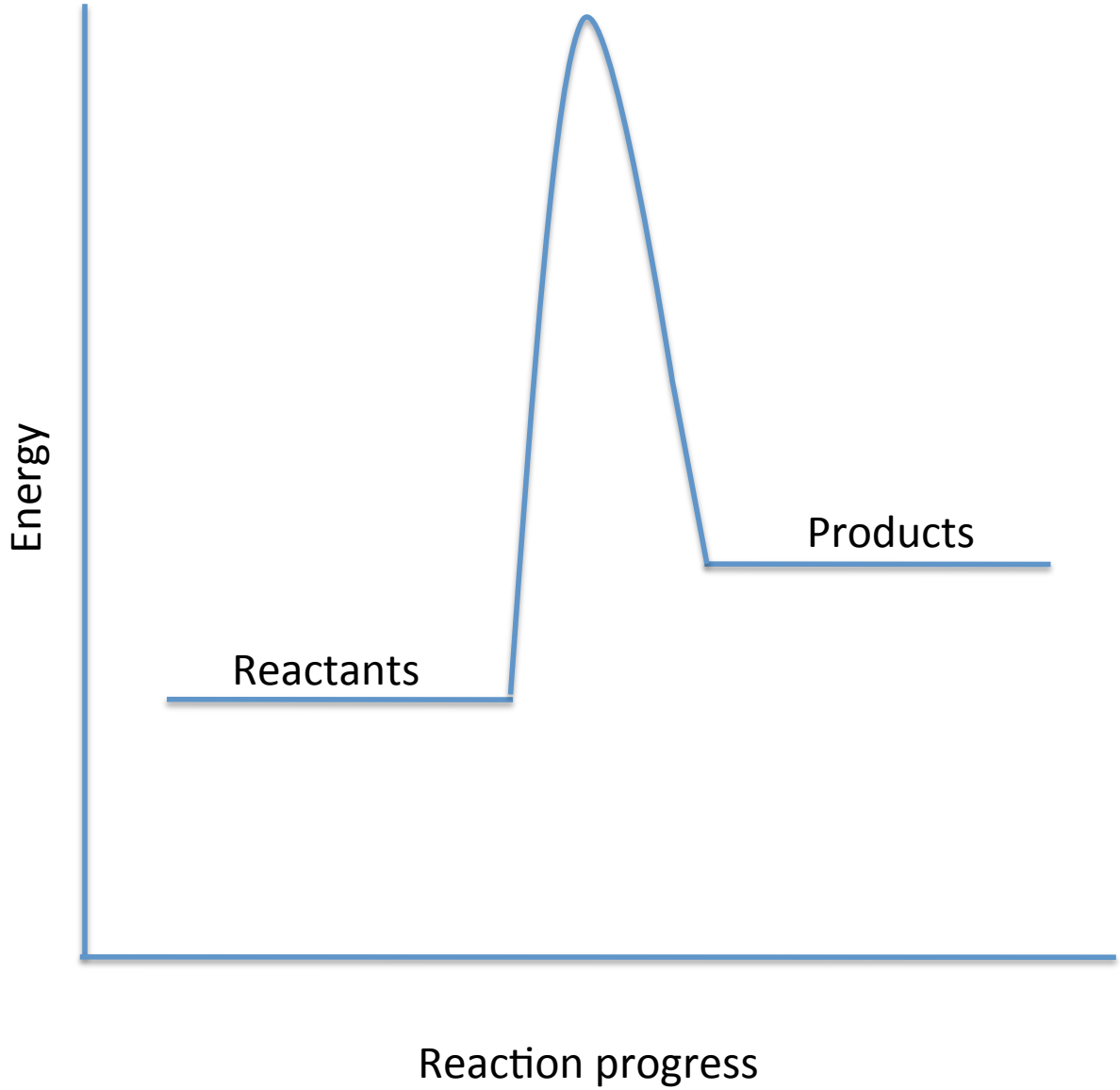
3. If the temperature of the reaction was increased would the energy profile for the reactions change? Explain.

4. Redraw profile B assuming a catalyst had been added.

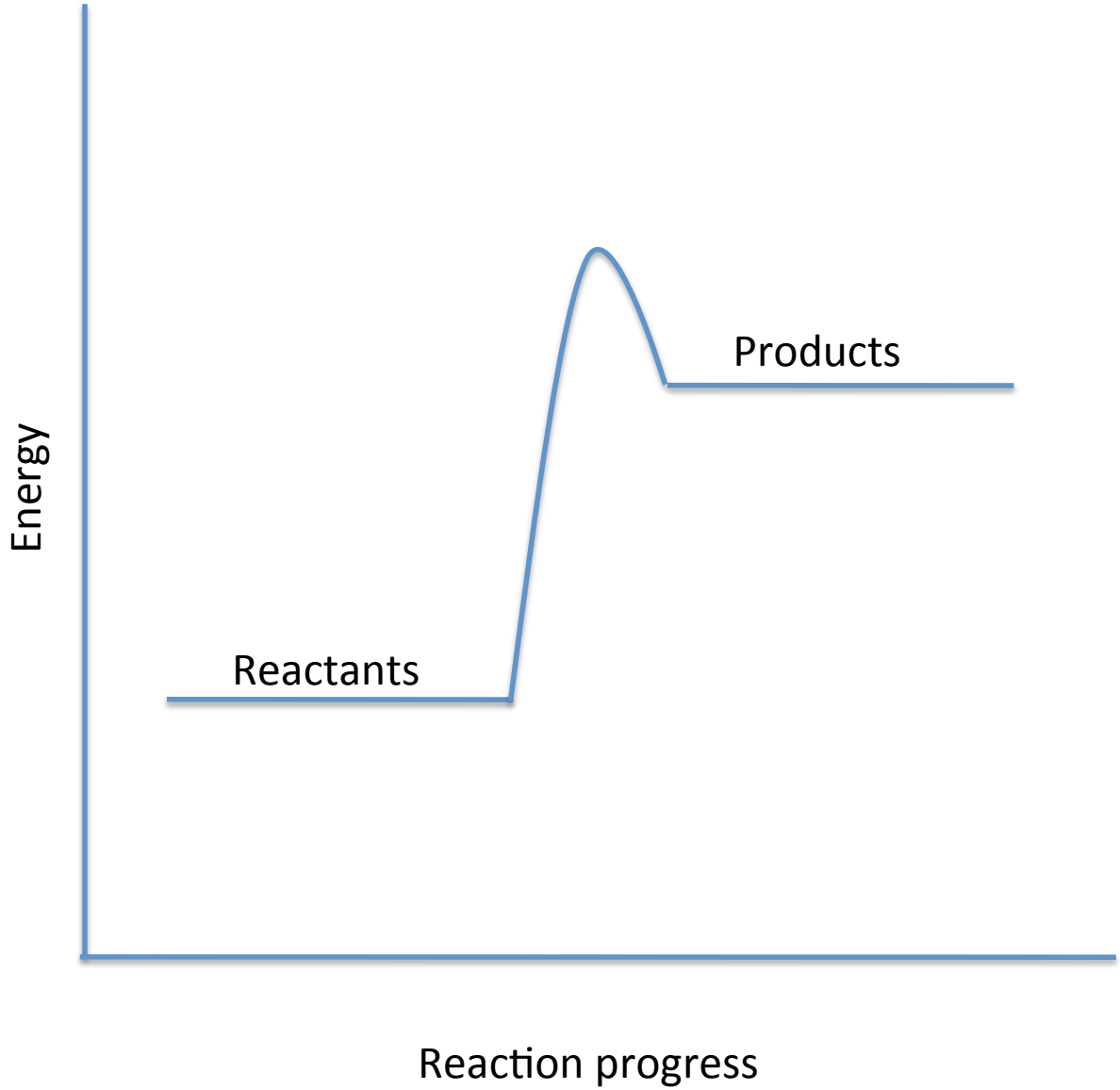
Reaction A



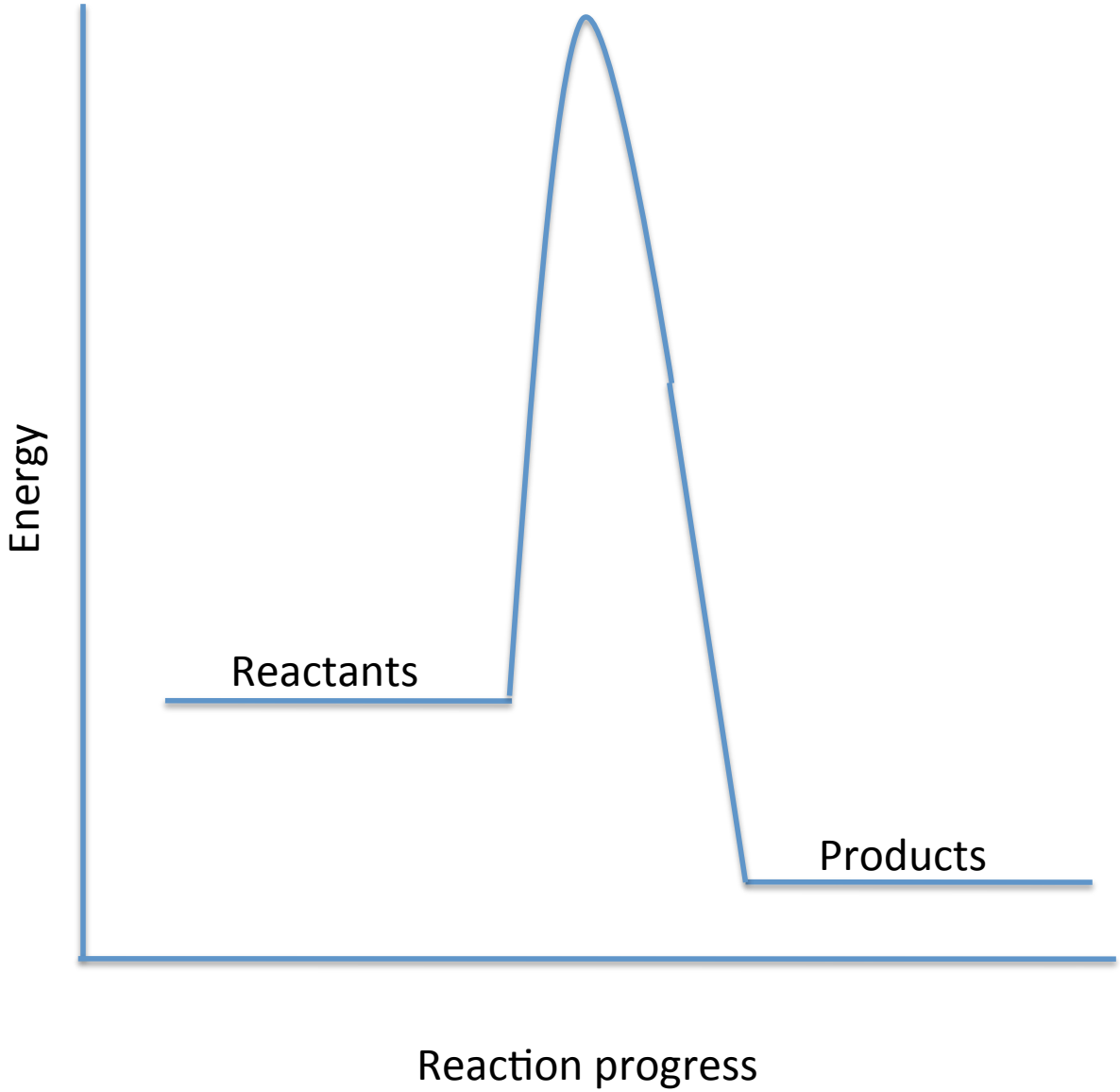
Reaction B



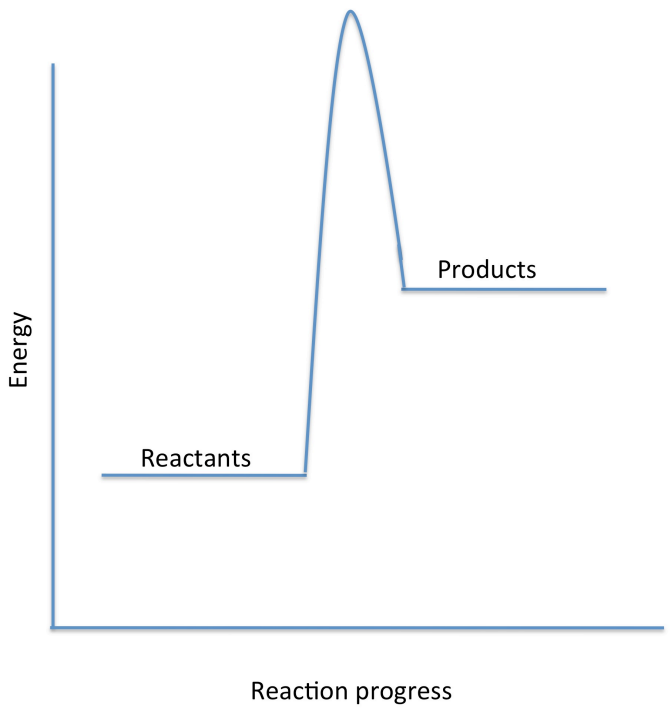
Reaction C



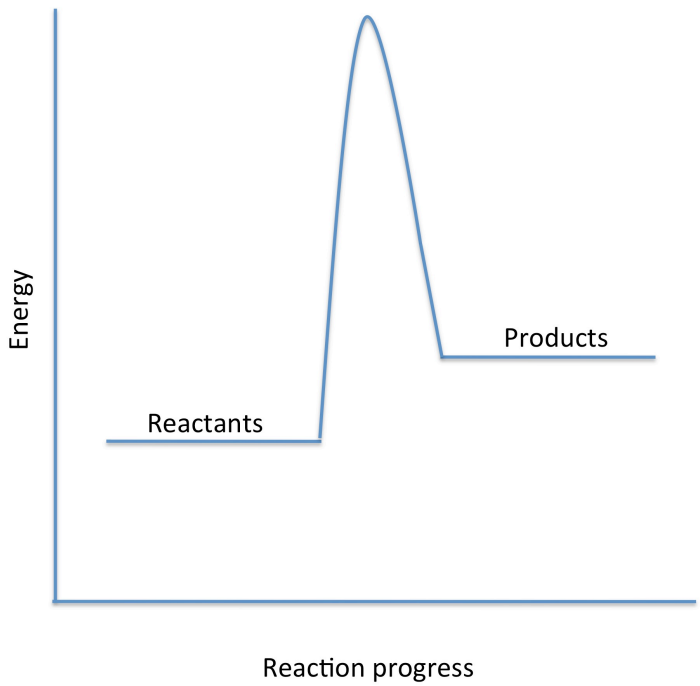
Reaction D



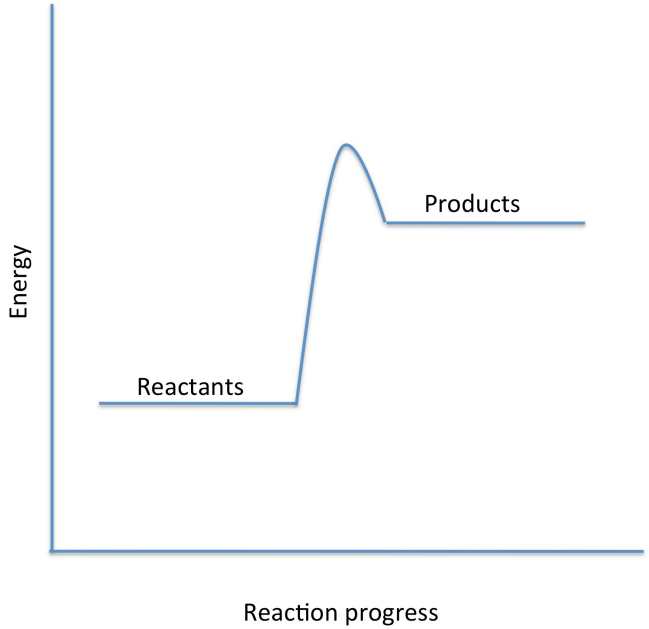
Reaction A



Reaction B



Reaction C



Reaction D