

# Year 12 into Year 13 – Chemistry

## Compulsory work:

### Rates

- 1) Log on to kerboodle and using the digital textbook, read pages 144-153 on reaction rates, catalysts and the Boltzmann distribution curve. Answer the summary questions on page 148, 151 and 153
- 2) On Youtube, watch the Khan Academy video called 'Experimental determination of rate laws' and make notes and work through the worked examples
- 3) Log on to kerboodle and read pages 272-276, make notes on how you would determine if the order of a reaction is zero, first or second and answer the summary questions on page 276
- 4) Log on to kerboodle and using the digital textbook, read pages 277-281 on concentration-time graphs and complete the summary questions on page 281
- 5) On Youtube, watch the Khan Academy video called 'Using the Arrhenius equation' make notes and then attempt the questions on page 291 of the kerboodle textbook
- 6) Complete the practise exam questions (1, 2, 4 and 6) on kerboodle on page 292-293

### Equilibrium

- 1) Log on to Kerboodle and read pages 154-159 on Dynamic equilibrium and Le Chatelier's principle. Answer the summary questions on page 159.
- 2) Read pages 160-161 on The equilibrium constant, make notes on what the equilibrium law is, what the value of  $K_c$  tells us and answer the summary questions on page 161.
- 3) Watch the video on Youtube by The Organic Chemistry tutor called 'ICE table – Equilibrium Constant Expression, Initial concentrations,  $K_p$ ,  $K_c$ , examples' until 7mins and 39secs. Work through the worked example with them to calculate  $K_p$ .  
<https://www.youtube.com/watch?v=54n1XppP-IA>
- 4) Continue watching the same video from 9.53 – 16.00, and work through that worked example.
- 5) On kerboodle, answer the summary questions on page 297
- 6) On kerboodle, read pages 298-301 on  $K_p$  and answer the practice exam questions on page 301

**Year 13 textbook** - students must have a copy of:

OCR A level Chemistry A, Student Book 2 published by Pearson: ISBN 9781447990819

**During the first week of teaching, you will be examined on the content to test their understanding of the topics in this bridging work as well as Y12 content.**

## Supplementary work:

- 1) Complete the kerboodle interactive tasks set – objective tests on all unit 2,3 and 4
- 2) Complete the kerboodle interactive tasks set – on your marks on all unit 2, 3 and 4

