

Year 12 into Year 13 – Chemistry

Dear Chemists,

Chemistry is an interesting as well as challenging subject and we welcome you onto the second year of the A-Level course.

Please complete the following tasks over the summer break:

Task 1

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.
<https://www.youtube.com/watch?v=Ad0aaYixFJg>
- 3) Log on to kerboodle and read pages 272-276, make notes on how you would determine the order of a reaction, whether it 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'.
<https://www.youtube.com/watch?v=zihepBLtqug> 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

Task 2

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'. Work through the worked example with them to calculate K_p , K_c .
<https://www.youtube.com/watch?v=J4WJCYpTYj8>
- 4) On kerboodle, answer the summary questions on page 297.
- 5) On kerboodle, read pages 298-301 on K_p and answer the practice exam questions on page 301.

Task 3

Objective quizzes on all the topics studied so far in year 12 have been assigned in kerboodle, start date 23rd July. Complete all these quizzes before 30th August 2022.

Year 13 textbook - students must have a copy of:

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

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| <p>During the first week of teaching, you will be examined on all of the content covered in year 12 and this bridging work.</p> |
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If you do not have access to kerboodle you should email Ms Janjale who will reset your password.

Best wishes,

Ms Janjale and Ms Selva