

This document outlines the expectations for learning and teaching in EA6 and serves as an annex to the wider Ebbsfleet Academy Teaching and Learning Policy.

1. Introduction

- All EA6 lessons should be planned to include the elements of EPIC teaching.
- Students in EA6 should work hard enough that they feel mentally tired by the end of a lesson. Students should be working harder than the teacher in the lesson.
- EA6 lessons should use a 'flipped' teaching and learning approach (see section 2) in which the majority of course content is covered by students before the lesson, with the lesson time dedicated to applying, refining and improving their knowledge rather than basic knowledge acquisition.
- The majority of all EA6 lessons should involve students actively engaging with the course content rather than passively receiving it.
- All lessons should be saved on Google Classroom.

2. Flipped learning

- The flipped model involves students covering the bulk of the new content they will be learning at home before a lesson, in order to focus lesson time on application and testing of their knowledge.
- There are a number of important reasons behind the use of the flipped model:
 - It moves easier, less challenging tasks – such as reading, note-taking and researching, which don't require teacher input – into home learning, which frees up valuable teacher contact time to focus on stretching, challenging and supporting students and identifying and addressing misconceptions, which is critical to their progress.
 - It supports the development of students' independent learning skills, preparing them better for the challenges they will face at university and in the world of work.
 - It minimises lesson time spent by students passively receiving, and maximises their time spent actively engaging with the course content.
 - By focussing on application of knowledge, more misconceptions can be identified and addressed, and the quality of feedback is significantly improved.
- The expectations for flipped learning are as follows:
 - **Preparing at home:** students cover the subject matter or otherwise prepare for the lesson to come. For example:
 - Reading a section of a textbook or course text and taking notes.
 - Watching an online video about the relevant material and taking notes.
 - Listening to a lecture that you have pre-recorded and taking notes.
 - Conducting research and planning in preparation for practical activities.
 - Developing responses to key questions or discussion points to be discussed in the lesson.
 - Practicing techniques or skills that will be used in the lesson.
 - **Arriving to the lesson prepared:** students should arrive at the lesson ready to launch into the challenging activities that have been planned. They should bring evidence of their preparation to the lesson, for example:
 - Notes on the material covered.
 - Specific questions about aspects of the material they didn't understand.
 - Worked examples of calculations (and or other process-based tasks).

- Draft responses to any questions that you have asked them to prepare in advance.
 - Preparatory sketches, samples, or tests of practical techniques.
- **Be challenged during the lesson:** activities should be focussed on application, testing and refinement of knowledge rather than knowledge acquisition.
- Illustrative examples of the flipped model can be seen in Appendix 1.

3. Flipped lesson structure

- To ensure students make progress in every lesson, EA6 lessons should follow the structure below (*suggested timings are for a 60 minute lesson*).
 1. **Starter (max 10 minutes)** – A short activity to assess learning of the material covered for home learning with a view to informing your delivery of the lesson.
 2. **Outcomes** – Sharing of learning outcomes/links to wider programme of study (2 minutes).
 3. **Lesson (45 minutes)** – A range of activities selected to meet the intended outcomes (see below). There is no minimum expectation for the number of phases, but the majority of this time should involve students actively doing rather than passively receiving. Please see Appendix 2 for examples of suitable activities.
 4. **Plenary (5 minutes)** – An opportunity for key learning points to be summarised, reinforced and/or extended. Could be teacher- or student-led.
- Whilst the above outlines the 'default' structure of a lesson, there will be times when this does not work such as during a practical lesson, and that is perfectly fine.

4. Student work

- Students should take pride in their work and must present it to the highest standard. This is essential for revision purposes.
- The date (in dd/mm/yy format) and students' initials should be written in the top right-hand corner of every piece of work.
- Students should have a separate ring-binder for each subject which should be organised with folder dividers used to separate sections.
- As a minimum expectation, students' folders should contain the following five sections, but they are encouraged to adapt this structure to suit their needs and the requirements of different subjects.
 1. **Course documents** – including course handbook or syllabus, curriculum overview, lesson checklists, data booklets and any other information.
 2. **Class notes** – it is recommended that students use the 'Cornell' format to take notes (see Appendix 4). Class notes and sheets must be clearly dated, ordered and filed according to which topic or paper the work is from
 3. **Application** – a section for activities that involve the application of knowledge (for example written questions).
 4. **Revision** – weekly revision tasks should be included in this section.
 5. **Exams** – any exams and assessments undertaken, including past papers.
- You are responsible for monitoring the standard of student work in your subject. Student folder checks should take place regularly as per section 4.

5. Home learning

- Home learning should be set in advance of your lessons. Ideally, students will be set home learning for the term ahead.
- All home learning should be set via Google Classroom.

- Home learning should always include some form of preparation for the lesson ahead as per the ‘flipped learning’ model (see section 1).
 - Best practice is to highlight the most important aspects of the material to students when you set the home learning so they know what to focus on.
- Home learning is not restricted only to preparation for coming lessons (although there should always be an element of this) and can include any other tasks that you feel will help students to make progress.
- You should set students **at least** 60 minutes of home/independent learning for each 60-minute lesson.
- All home learning and independent study should be marked with the letters ‘HL’ in the top right-hand corner to show it has been done at home.
- Interleaved revision tasks should be set every week *in addition* to home learning and should take 1-2 hours per week. These tasks should cover multiple different aspects of the material covered to date rather than just one topic. This is important to get students practicing knowledge selection (a vital exam skill) and to ensure frequent recall opportunities in order to improve memory recall strength.
- You should actively teach revision techniques, including:
 - Making flash cards
 - Producing mind-maps
 - Condensing notes
 - Self-assessment of learning: past exam papers marked by students and moderated by the teacher

6. Retrieval Practice (a.k.a. low-stakes testing)

- Given the critical importance of regularly practicing recall of knowledge to the formation of long-term memories, it is important that your planning incorporates regular elements of retrieval practice.
- The appropriate amount of retrieval practice will vary from subject to subject, and could be as often as every lesson or as little as once per week.
- The exact format of retrieval practice will vary from subject to subject, but it should typically involve:
 - Questions requiring factual recall rather than application of knowledge.
 - A mixture of questions from a range of topics covered so far.
 - An emphasis on questions addressing core or foundational material.
- The sole objective of retrieval practice is to improve memory recall strength so it is not important to collect scores, however you may wish to give students some form of tracker so they can track their own progress and relative strengths and weaknesses.
- The weekly home-learning revision tasks are a key aspect of retrieval practice, but retrieval practice should also take place in lessons.

7. Marking, assessment and feedback

- Students should be given an exam-style assessment at least once every **two weeks**. This should comprise actual past exam questions or exam-style questions that you have written yourself. This should form part of students’ home learning.
- Feedback takes place on an alternating two-week cycle consisting of folder checks and exam-style assessments.
 - **Marking and giving feedback on the exam-style assessment**
 - This should be marked to the standard of the specification you are following.
 - An approximate grade should be assigned, shared and recorded.

- Written comments should make it clear what the student has done well and what they need to improve and how.
 - **Folder check**
 - This should include:
 - Checking basic organisational standards are met (see section 2).
 - Checking notes for completeness.
 - Checking the quality of notes:
 - Are they well-structured with headings, sub-headings and a general sense of order?
 - Are the notes appropriate (not too long or too brief, covering the right points, relevant diagrams included)?
 - Are cue-columns and summaries being completed appropriately?
 - Checking in the demonstrate section that students are marking and correcting their work appropriately.
 - Feedback should be written and students should be given the opportunity to follow up your comments.
 - The form in Appendix 3 can be used to facilitate this.
- **DIRT** must be built into lesson plans for students to respond to marking and comments following each assessment. Staff should write comments and marks in red ink, students should respond in green ink. Staff should use these symbols to denote the following:
 - √: good point, word or description
 - √√: excellent point
 - Spg: spelling, punctuation or grammar mistake
 - // new paragraph needed
 - ^ missing letter or words
 - You may wish to develop and share other symbols specific to the needs of your subject.
- **Marking must:**
 - Make it clear what students have done well (*for example WWW (What Worked Well...)*)
 - Make it clear what students need to do to improve (*for example EBI (Even Better If...)*)
 - Provide students with a clear action to help them improve such as a question or short task.

8. Curriculum planning

- A two-year curriculum overview document should be developed, shared with the students and made available on the academy's website.
- The curriculum overview should outline for each term:
 - The topics that will be taught and which paper or module they belong to.
 - The key pieces of work that will be completed (such as internal assessments and core practicals).
 - The dates and details of any external examinations taking place, highlighted in pink.
 - Use the initials '(tbc)' in brackets for any exam dates not yet published, and ensure you update the document once they are published.
 - The dates and details of any internal examinations taking place, highlighted in green.
- Curriculum planning should take account of AS examinations which will be taken in May/June of Year 12 for all subjects that offer them, and any 'in-year' examinations, which are common in vocational subjects.
- A curriculum overview template and exemplar can be found in Appendix 5.

- The full two-year curriculum plan should be shared with students at the start of Year 12 so that structure of the course is clear to them.

9. Cover lessons

- In the rare event of a teacher being absent for an EA6 lesson, students will be sent to the study room to work.
- Details of cover work should be emailed to the cover coordinator (Holly Hicks), the year group tutor (Y12: Dan Owen-Tayloe, Y13: Korinne O’Keeffe), the LT member with responsibility for EA6 (Jess Eales-White) and should also be entered directly onto the home learning spread sheet in the ‘notes’ column.
- Details of cover work should be distributed by 5:00 p.m. of the preceding day in the case of planned absence and by 7:45 a.m. on the day in the case of unplanned absence.
- Cover work should be detailed and reflect the structure of a normal lesson as closely as possible.
- Home learning must be set as for a normal lesson.
- Completion of cover work and understanding of it should be checked in your first lesson after returning from absence.

Appendix 1: Illustrative Example of Flipped Learning

Flipped learning example 1: Chemistry – Acid-base titrations

Before the lesson:

Students read two pages of the textbook about acid-base titrations and watch an online presentation about how to calculate the concentration of an acid from a titration. Students produce 2-3 sides of notes in the Cornell style focussing in particular on how to do the example calculations. Students complete the cue-columns of their notes to help organise their knowledge. As they study, students make a note of any questions they wish to ask about the material.

During the lesson:

Starter:

- Students are given a practice calculation to complete, most students get the answer correct but two do not.

Learning outcomes:

- The teacher highlights that learning objective 5.11 is being covered and students tick this off in their copy of the syllabus.

EA6 learning phases:

- **Surgery:** students raise questions about aspects of the material from their home learning that they didn't understand. The teacher re-visits the relevant aspects of the material that weren't fully understood, and re-demonstrates the method for the calculation. Students augment the notes they made at home.
- **Expert input:** The teacher works through a particularly challenging example of the calculation on the board, asking the students to discuss the calculation step-by-step and then showing them the best method on the board. Students write their attempts for each stage as they are discussing and correct them if they are wrong.
- **Exam-style questions:** students are given a practice exam question on the material covered with a strict seven-minute time limit. The two students who got the starter wrong are taken aside and the teacher re-explains the method, then talks them through the exam question step-by-step.
- **Assessment for Learning:** The mark scheme is displayed on the board and students mark and correct their work in green. The teacher circulates the room, monitoring the students' marking and making corrections where needed.

Plenary:

- Students summarise the key points from the learning and share this with the group, with discussion around the points where they disagree with each other.

After the lesson:

The students complete the summary sections of their Cornell notes. The two students who struggled with the calculation in the starter are given additional ones to practice and build their confidence.

Flipped learning example 2: Maths – Factorising polynomials

Before the lesson:

Students watch a YouTube video explaining how to use Factor Theorem to factorise polynomials, copying down the method used in the examples and annotating each step to explain the reasoning. Students complete several easier questions from the textbook to practice applying the method. As they study, students make a note of any questions they wish to ask about the material.

During the lesson:

Starter:

- Students are given an incorrectly answered question with its workings and are asked to correct it, identifying the mistakes made at each step. The teacher uses this to determine where any errors lie in the students' understanding, which feeds in to the surgery phase planned for later.

Learning outcomes:

- The teacher highlights that learning objective 2.6 is being covered and students tick this off in their copy of the syllabus.

EA6 learning phases:

- **DIRT:** Students are given some time to act on feedback from the bi-weekly folder check that the teacher completed yesterday afternoon.
- **Surgery:** students raise questions about aspects of the material from their home learning that they didn't understand. The teacher re-visits the relevant aspects of the material that weren't fully understood, and fills in the gaps in their understanding.
- **Subject skills:** The teacher works through a problem twice: once with poor and unclear workings and once with good and well-structured workings. The teacher shows how although both get the right answer, the one with poor workings does not fully access the mark scheme. Students are asked to look back through their calculation and identify and improve any poor workings.
- **Task:** Students work through a series of problems from the textbook. They are told to skip through the earlier problems if they find them too easy and focus on those that will stretch them. They are reminded of the importance of clear workings. They mark their answers as they work, the teacher circulates offering feedback where needed.

Plenary:

- Students reflect on the method used in today's calculations and identify where they most often made mistakes.

After the lesson:

The students complete the summary sections of their Cornell notes and are given a challenging example calculation to complete.

Flipped learning example 3: Law – Factual and legal causation

Before the lesson:

Students read pages 162-163 of the textbook, taking notes in the Cornell style and make notes of any questions they wish to ask the teacher in the lesson. Students then prepare bullet-pointed arguments for a debate in class for and against the motion '*Blaue (in R vs Blaue) is less culpable than 'D' (in R vs Kimsey)*'.

During the lesson:

Starter:

- Students are presented with a case study relating to a case in which the defendant was found guilty of a fatal crime and are asked to determine whether the defendant is the factual cause, legal cause or both of the victim's death. This leads to a discussion around the key points from the home learning. The teacher notes that student's understanding of 'legal cause' appears weak.

Learning outcomes:

- The teacher highlights the learning objectives being covered and students tick them off in their copy of the syllabus.

EA6 learning phases:

- **Surgery:** students raise questions about aspects of the material from their home learning that they didn't understand. The teacher re-visits the relevant aspects of the material that weren't fully understood, and fills in the gaps in their understanding.
- **Expert input:** The teacher delivers a short improvised lecture on legal cause, as it was clear that students had not understood it well. This is different to what was initially planned.
- **Discussion:** The class is split into two groups; each group is given 5 minutes to prepare for the debate on the motion they planned for in the home-learning. A lively debate ensues in which a nominated speaker from each side presents their arguments, members of each group taken it in turns to ask and answer questions of the other group. The teacher notes that student's understanding of 'legal cause' has improved.
- **Task:** Students work through questions from the text book. As they do so, the teacher circulates, monitoring the quality of students' answers and giving feedback where needed. The teacher also addresses some poor folder-organisation which they notice as they walk around.

Plenary:

- Students write a short paragraph summarising the difference between factual and legal cause and share them with the class who critique their answers.

After the lesson:

The students complete the summary sections of their Cornell notes and are asked to produce a bullet-pointed plan of an exam-style essay on this topic which the teacher had originally planned for the lesson time.

Appendix 2: Example learning activities

EA6 Learning phases: Activities should be chosen to address the desired learning outcomes, to challenge students and to provide opportunities to identify and address misconceptions. A range of suitable activities is listed below, but this is not intended to limit you; feel free to use other activities provided they are suitably challenging.

1. **Expert input** – This could be a part of the lesson led by the teacher or involve research, reading or using other media.
2. **Surgery** – An opportunity for students to ask questions about aspects of the material they didn't fully understand when learning about it at home.
3. **Discussion** – Students discuss and debate around the key learning points. This could be student led or facilitated by the teacher. Use of high-level vocabulary is critical in discussions.
4. **Subject skills** – Developing subject specific skills such as essay writing, speaking and oratory skills (including the use of high-level vocabulary), problem solving, language analysis, data analysis, course-specific software packages and so on.
5. **Modelling of standards** – Teacher demonstrates what high level learning looks like against the assessment criteria.
6. **Student-led** – Students work collaboratively on their learning. This could involve discussion, pair and group work; student presentations; students teaching each other and so on.
7. **Demonstrate** – Students have the opportunity to show their learning and progress through an activity or task.
 - Students should be given frequent opportunities to self-assess these tasks.
8. **Practical** – Students complete a practical activity such as production of a creative work, physical activity or scientific experiment.
9. **Questioning** – Use of questioning techniques to enhance learning; this could also be a way of demonstrating progress or part of assessment for learning. It could be student-led or teacher-led.
10. **Assessment for learning** – Self, peer or teacher assessment of where students are 'at' and what could be done to further progress.
11. **Exam focus** – Students practice a specific exam technique, question or element.
12. **Investigation, exploration, research** – Students, independently or collaboratively, investigate, explore and research, for example through an experiment, practical, extension reading or use of simulation software.
13. **Mini plenary** – This could also be part of the assessment for learning; an opportunity to check progress before the end of the lesson.
14. **Lecture and note-taking** – Students learn in a university 'lecture' style for a small part of the lesson and develop their knowledge, share ideas, and develop their note-taking skills.
15. **Independent learning** – Students develop independent learning skills and take responsibility for their own progress through a task of their choosing.
16. **DIRT** – Directed Improvement and Reflection Time: an opportunity for students to respond to your marking comments.

The only times when it is not expected that students follow the EA6 Learning Cycle are practical lessons in which it is sometimes appropriate for students to be fully engaged in 'doing' throughout the lesson without the structure of discrete lesson phases.

Appendix 3: Student Progress Review Sheet

Name: _____

Target Grade _____

Your folder is your record of all of the work you do during your course. It is essential it is kept up to date and clearly shows your progress and the work you have done during the course. It should provide the basis of revision for final exams.

Your folder should be laid out into the following six sections:

1. **Course documents** – including course handbook or syllabus, curriculum overview, lesson checklists, data booklets and any other information.
2. **Class notes** – students should use the ‘Cornell’ format to take notes (see Appendix 2). Class notes and sheets must be clearly dated, ordered and filed according to which paper their work is from.
3. **Tasks** – a section for activities, questions and tasks other than notes.
4. **Home learning** – all home learning (other than notes).
5. **Interleaved revision** – weekly revision tasks should be included in this section.
6. **Exams** – any exams and assessments undertaken, including past papers.

Your teacher will review your folder fortnightly. If there are problems with your folder these must be rectified **within one week**. Your teacher will sign your folder off when he/she is satisfied all sections are adequate.

Focus of review	ATL				WWW Comment / EBI Action Required	Teacher sign + date
	1	2	3	4		

Marking and assessment feedback	Student response
Task title: WWW: EBI:	
Task title: WWW: EBI:	
Task title: WWW: EBI:	
Task title: WWW: EBI:	

Appendix 4: Cornell Notes

The 'Cornell' style of note-taking is a widely used and research-backed approach to taking high quality notes. Cornell notes should be the default approach that students use, but if it is really not working for a particular student, they are not required to use it.

Dividing the page:

- The page should be split, as shown in the diagram into three sections: 'cues', 'notes' and 'summary'.

Notes:

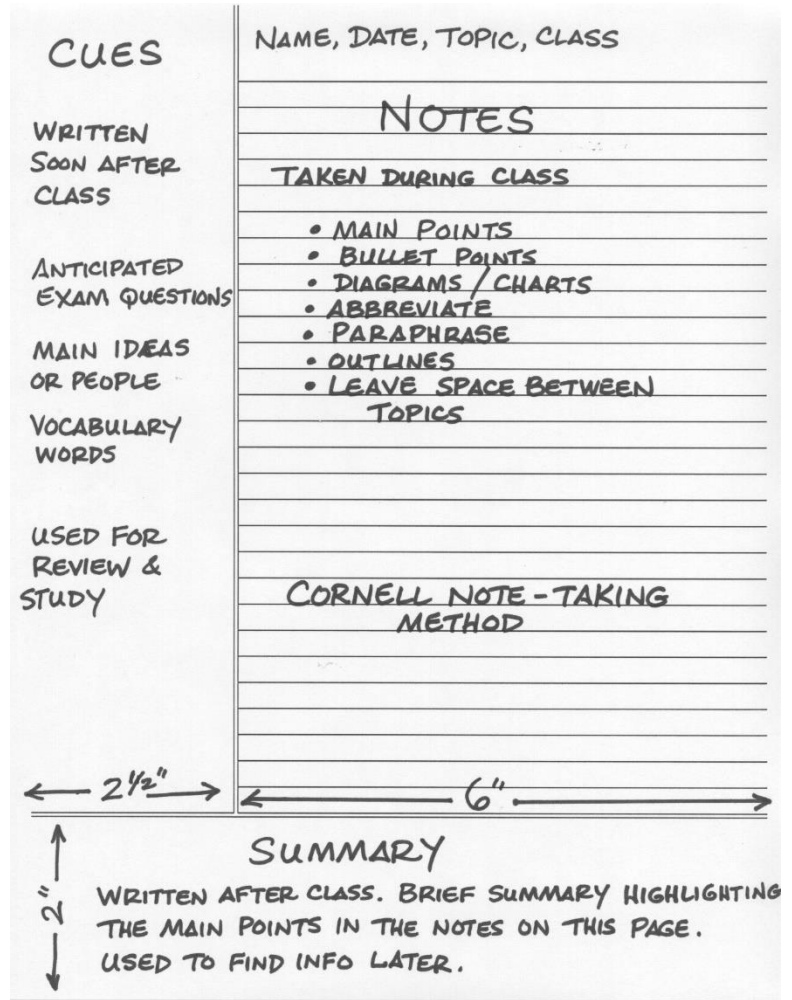
- Notes on the subject matter, predominantly completed for home learning.
- Notes should be condensed and in students' own words.
- Notes should include key diagrams, equations and formulae.
- Examples of calculations should be annotated to explain each step.
- Space should be left on the page to add additional notes and clarifications during lesson time.

Cues:

- This should be done once the notes have been taken.
- Suitable cues include key words, key questions and important people or characters.
- Good cues turn the notes into a 'knowledge organiser' that facilitates self-quizzing for greater recall and aids revision.

Summary:

- This should be done the in evening or morning following the lesson.
- The most important ideas from the notes should be summarised in a few bullet points or a short paragraph.



Appendix 5: Curriculum overview template

SUBJECT NAME

Year 12 & 13 Curriculum Overview 2019-2021

Key: **pink** = external examinations, **green** = internal examinations

Year 12		
Term	Dates	Topics & Themes
Term 1	03 rd September 2019 to 18 th October 2019	34 Lessons
Term 2	4 th November 2019 to 20 th December 2019	35 lessons
Term 3	6 th January 2020 to 14 th February 2020	30 lessons Internal examination week – w/b 27th January 2020
Term 4	24 th February 2020 to 3 rd April 2020	29 lessons AS level mock examinations – w/b 2nd and 9th March 2020
Term 5	20 th April 2020 to 22 nd May 2020	25 lessons AS Examinations
Term 6	1 st June 2020 to 22 nd July 2020	38 lessons Internal examination week – w/b 22nd June 2020

Year 13

Term	Dates	Topics & Themes
Term 1	1 st September 2020 to 16 th October 2020	33 Lessons
Term 2	2 nd November 2020 to 18 th December 2020	35 Lessons Mock examinations 1
Term 3	4 th January 2021 to 12 th February 2021	30 lessons
Term 4	22 nd February 2021 to 1 st April 2021	29 lessons Mock examinations 2
Term 5	19 th April 2021 to 28 th May 2021	29 lessons
Term 6	7 th June 2021 to 23 rd July 2021	35 lessons A-Level Examinations (tbc)

Exemplar Curriculum Overview: A-Level Chemistry (Edexcel)

Year 12 & 13 Curriculum Overview 2019-2021

Key: **pink** = external examinations, **green** = internal examinations

Year 12		
Term	Dates	Topics & Themes
Term 1	03 rd September 2019 to 18 th October 2019	34 Lessons Topic 1 – Atomic structure and the periodic table (P1) Topic 5 – Formulae, equations and amounts (P1&2) Core Practical 1 – Measuring the Molar volume of a gas Core Practical 2 – Preparing a standard solution Topic 2 – Bonding and structure (P1&2)
Term 2	4 th November 2019 to 20 th December 2019	35 lessons Topic 6.1 – Introduction to organic chemistry (P2) Topic 3 – Redox I (P1&2) Topic 4 – Inorganic chemistry and the periodic table
Term 3	6 th January 2020 to 14 th February 2020	30 lessons Core practical 3 – Determining the concentration of HCl Topic 6.2 – Hydrocarbons: alkanes and alkenes (P2) Topic 8 – Energetics I (P1) Internal examination week – w/b 27th January 2020
Term 4	24 th February 2020 to 3 rd April 2020	29 lessons Core Practical 8 – Investigating Hess' law Topic 6.3 – Halogenoalkanes and alcohols (P2) Core Practical 4 – Hydrolysis of halogenoalkanes Core Practical 5 – Oxidation of ethanol Topic 9 – Kinetics I (P2) Core Practical 6 – Chlorination of 2-methylpropan-2-ol Topic 7 – Modern Analytical techniques I (P2) AS level mock examinations – w/b 2nd and 9th March 2020
Term 5	20 th April 2020 to 22 nd May 2020	25 lessons Core Practical 7 – Identification of unknown compounds Topic 10 – Equilibrium I (P1) AS Examination Paper 1 – Monday 18th May (AM) AS Examination Paper 2 – Thursday 21st May (AM) Topic 11 – Equilibrium II (P1)
Term 6	1 st June 2020 to 22 nd July 2020	38 lessons Topic 17.1 – Chirality (P2) Topic 13.1 – Lattice energy (P1) Topic 17.2 – Carbonyl compounds (P2) Topic 16 – Kinetics II (P2) Core practical 13b – Determining a rate equation Core practical 14 – Determining an activation energy Core practical 13a – Monitoring rates by titration Topic 17.3 – Carboxylic acids and their derivatives (P2) Internal examination week – w/b 22nd June 2020

Year 13		
Term	Dates	Topics & Themes
Term 1	1 st September 2020 to 16 th October 2020	33 Lessons Topic 12 – Acid-base equilibria (P1) Core Practical 9 – K_a of a weak acid Topic 18.1 – Arenes – benzene compounds (P2) Topic 13.2 – Entropy (P1)
Term 2	2 nd November 2020 to 18 th December 2020	35 Lessons Topic 18.2 – Amines, amides, amino acids and proteins (P2) Topic 14 – Redox II (P1) Core practical 11 – Redox titration Core Practical 10 – Electrochemical cells Topic 18.3 – Organic synthesis (P2) Mock examinations 1 – w/b 25th Nov
Term 3	4 th January 2021 to 12 th February 2021	30 lessons Core practical 16 – Synthesis of aspirin Topic 15 – Transition metals (P1) Core practical 12 – Transition metal complexes Topic 19 – Modern analytical techniques II (P2)
Term 4	22 nd February 2021 to 1 st April 2021	29 lessons Core practical 15 – Analysing unknown substances Revision and intervention Mock examinations 2 – w/b 2nd March
Term 5	19 th April 2021 to 28 th May 2021	29 lessons Revision and intervention
Term 6	7 th June 2021 to 23 rd July 2021	35 lessons Revision and intervention A-Level Examinations (tbc)