REMOTE LEARNING MODULE

Subject: Science Year 10
Created: July 2020
Updated:

Subject:	Science	Teacher (if applicable):	
Year:	10/11	Ability/Class (if applicable):	
Module title:	Exam Practice and Strategies – C1 Atomic Structure and the Periodic Table		

Duration:	2 weeks ☐	4 weeks ☐	6 weeks ☐	8 weeks ☐	Other:

Intent

Intent Statement - at Landau Forte Amington, we believe learning powerful knowledge helps students achieve and creates a fairer society. How are you trying to accomplish this, with this module?
We will provide a challenging, diverse and aspirational Science curriculum. The content we teach will break down perceived boundaries, open minds and equip all with the knowledge and skills they need for their future lives and careers. We will not shy away from challenging topics, but find a way to break them down so students will succeed. This topic will heavily focus on exam technique and practice, basing the practice on the first topic in chemistry.
Aims - what do you want pupils to be able to know and do by the time they finish this module?
• To be able to build and recap on their KS4 knowledge on atoms, elements and compounds. To be confident to apply this knowledge in different situations. • To describe the different separation techniques, answering exam extended writing questions • To be able to build their confidence with reading, writing and numeracy skills within an exam setting
Academy values – at Landau Forte Amington, we want students to be ambitious, brave and kind. How are these values promoted in this module?
Ambitious - Students are able to access the content and their appropriate level and the content allows for all students to be stretched in their development of new skills, knowledge, and application. Students learn through a range of activities, highly focusing on exam technique. All students will be stretched through the various forms of new learning and assessment. Brave – we will cover questions that are both representative of the examination papers they face but also challenging in terms of content or difficulty. Kind – we will give our students the tools to succeed in the face of challenging examinations, and work to eliminate barriers to their progress.

Content – what is being covered, ensuring breadth & depth?	National Curriculum/Exam Specification - how does the content link to the NC or Exam Spec?
A simple model of the atom, symbols, relative atomic mass, electronic charge and isotopes Separation techniques The history of the atom The periodic table	5.1.1 A simple model of the atom, symbols, relative atomic mass, electronic charge and isotopes 5.1.2 The periodic table 5.1.2.3 Metals and non-metals 5.1.2.4 Group 0

Exam technique	5.1.2.5 Group 1 5.1.2.6 Group 7

Powerful Knowledge - what powerful knowledge is included in this module? Consider what knowledge is it important for our students to know, so that when they leave school they can engage in and lead discussions, with people from the most advantaged backgrounds?

- What is an atom and how we use this building block to predict properties based on our knowledge.
- How to separate different substances using information about their properties.
- Students will gain knowledge of basic lab techniques.
- Students will be have an understanding of why and how scientific methods are developed

Implementation

KEY CONCEPTS	
Key Concepts – what are the key concepts being taught?	**Progression** – how will studying these key concepts support progression to the next academic year, or key stage?
Atoms, elements and compounds Separation technique Groups 0, 1 and 7 Metals and non-metals Exam techniques	Atoms, elements and compounds are the key areas that underpin the majority of the Chemistry topics. Examination techniques can be applied to all Science areas
LEARNING	
Synchronous – what are the synchronous aspects of the module, including new material taught?	**Asynchronous** – what are the asynchronous aspects of the module, including deliberate practice?
Prepare for Practice: Modelled answers of exam style questions. Unpicking exam responses and assigning levels. **New material includes**- development of the periodic table, reactions of Group 0, 1 and 7, electronic structure, and exam techniques.	**Deliberate Practice:** Students will write their own exam answers **Light and Deep Feedback** given asynchronously using MS Teams Quizzes used to test list questions and basic knowledge **Review** of previous topics through recall DNA and short answer quizzes.
ENGAGEMENT	
Accessibility – how are you going to ensure students without ICT can engage with this module?	**Disengagement** – how are you going to ensure students who are not engaging with this module are identified and supported?

The resources and instructions will be printed as a pack for students to work through. However asynchronous learning will not take place for those without internet. Lessons can be recorded for pupils to watch via their phones.	If a student does not attend a synchronous session, a message will be sent to parents and student via Edulink. Form tutor will also be informed. The expectation is to catch up on the work or watch the recorded lesson.

FEEDBACK

End of Module – what is the end of module assessment, which will be used to evaluate the knowledge and skills gained?	**Review Points** – what takes place at the review points, to monitor the progress of learners and provide feedback, or support?	
Mass practice exam-style question paper at the end. Upload assessment to MS Teams.	**2 Weeks**	Kahoot scores monitored, along with marks from exam style questions and recall questions
	4 Weeks	End of topic exam-style paper – feedback given asynchronous via Teams and marks collected
	6 Weeks	
	8 Weeks	
	Other	

Delivery *(please note - a two week remote learning module may only take one lesson cycle)*

1 – 5.1.2.1 – 5.1.2.3 Atoms elements and compounds, Mixtures, The development of the model of the atom

Number of lessons in: 3

1) Lesson Type (remote or blended)		2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)	
Remote (live on MS Teams and remote as study)	☒	Each lesson will start with recall DNA about previous learning or Year 10 study for Year 11	What	Describe the structure of an atom and the experiments that led to the current model of the atom
Blended (live in classroom and remote as study)	☐		Why	Atoms, elements and compounds are the building blocks to all chemistry topics. Exam technique is pivotal to achieving the best grade possible.
			How	You will be able to successfully answer exam questions relating to the topic

4) New Material (previous learning/ new material)	5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)	Synchronous (live)
Exam tips and technique – short answers and extended writing answers Build on KS3 knowledge about atoms, elements and compounds – BBC bitesize	Quiz questions	Scaffold exam questions on the structure of the atom/ history of the atom/separating techniques.	

		7) Deliberate Practice (guided/ independent)	8) Feedback (light/deep)	9) Review (daily/monthly)	Asynchronous (remote)
		Produce an effective revision resource e.g. mind maps, flash cards Answer exam Questions	Feedback given whole class on quiz questions and recall DNA results to address misconceptions. Students to self-mark exam questions, highlighting areas that they need to focus on.	DNA recall is a review Kahoot of previous learning at end of cycle	
2 – 5.1.2.4 – 5.1.2.7 Relative electrical charges of subatomic particles, size and mass of atoms, Relative atomic mass, electronic structure.	3	1) Lesson Type (remote or blended)	2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)	
		Remote (live on MS Teams and remote as study) ☒ Blended (live in classroom and remote as study) ☐	Each lesson will start with recall DNA about previous learning or Year 10 study for Year 11	What: Draw and write out electronic structures. Calculate the relative atomic mass of an element. Know the relative charge and mass of protons, neutrons and electrons Why: Atoms, elements and compounds are the building blocks to all chemistry topics. Exam technique is pivotal to achieving the best grade possible. How: You will be able to successfully answer exam questions relating to the topic	
	Number of lessons in cycle:	4) New Material (previous learning/ new material)	5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)	Synchronous (live)
		Exam tips and technique – short answers and extended writing answers Share BBC bitesize link where all information can be found on subatomic particles and electronic structures	Quiz questions	Scaffold a mathematical exam question Look at examiner reports for certain exam questions	
		7) Deliberate Practice (guided/ independent)	8) Feedback (light/deep)	9) Review (daily/monthly)	Asynchronous (remote)
		Produce an effective revision resource e.g. mind maps, flash cards Answer exam Questions	Feedback given whole class on quiz questions and recall DNA results to address misconceptions. Students to self-mark exam questions, highlighting areas that they need to focus on.	DNA recall is a review Kahoot of previous learning at end of cycle	

3 – 5.1.2 The periodic table	4	1) Lesson Type (remote or blended)		2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)		
		Remote (live on MS Teams and remote as study)	☒	Each lesson will start with recall DNA about previous learning or Year 10 study for Year 11	What	Describe the developments of the periodic table Describe the reactivity and reactions in Group 0,1 and 7	
		Blended (live in classroom and remote as study)	☐		Why	Atoms, elements and compounds are the building blocks to all chemistry topics. Exam technique is pivotal to achieving the best grade possible.	
					How	You will be able to successfully answer exam questions relating to the topic	
	Number of lessons in cycle:	4) New Material (previous learning/ new material)		5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)		Synchronous (live)
		Share BBC bitesize link where all information can be found for the periodic table Exam techniques recap		Quiz questions	Give example exam questions on the reactions of Group 0/1//7. Provide exam tips and strategies needed to answer the exam question		
		7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)	9) Review (daily/monthly)		Asynchronous (remote)
		Attempt exam questions based on Group 0, 1 and 7 of the periodic table Produce an effective revision resource e.g. mind maps, flash cards		Feedback given whole class on quiz questions and recall DNA results to address misconceptions. Students to self-mark exam questions, highlighting areas that they need to focus on.	DNA recall is a review Kahoot of previous learning at end of cycle		