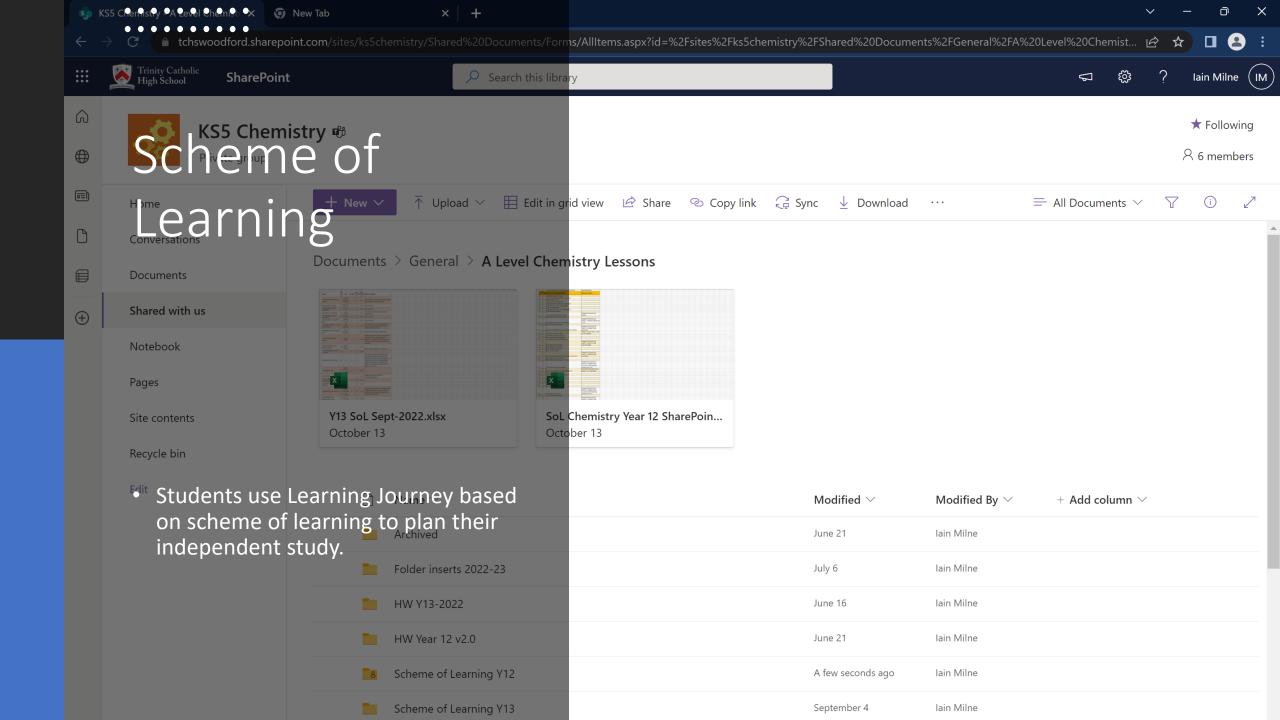
KS5 Chemistry – Independent Study

Independent Study – guided in Year 12/13 according to need.



ent Work Standards – Essential Non-Negotiable Quick Reference Checklist (Updated Jan 2022)

der to ensure a standard and consistent approach to student folder standards, the following basic 'non-negotiables' t be in place across student work to ensure effective work scrutiny. These are the minimum expected standards.

onable adjustments are offered to students wishing to maintain a digital folder. Such students will be allowed to Itain work following the format outlined below so long as that work is immediately placed in their personal OneNote in Student Notebooks — A private space shared between the teacher and each individual student. Teachers can access y student notebook, while students can only see their own. Failure to maintain work in a digital format may mean the teacher instructs a physical folder structure to be maintained.

icator	Key Fundamentals – The essential practices that <u>must</u> be seen in all folders	Ye.
sentation ics	All students keep independent study, classwork, and homework in folders in dated and lesson number order.	Folder
ets ectations if	All classwork and homework have clear titles (with LXX number clear) and are dated. All underlined and labelled as c/w or h/w.	Standards
	Independent study clearly book-ends classwork and homework. Students label such work clearly with Pre-LXX Title and Post-LXX as appropriate.	Hold students to account on folder
	Classwork is on lined paper and immediately filed into students folder and all worksheets hole punched and placed into folders	standards Evidence of independent study should
	High standards of presentation are maintained over time. Work reflects the school's ambitious intentions for the course of study	be on Teams and in students folders.
dback ics ets	Clear diagnostic feedback is given to significant pieces of work set at least twice a half term via a TEAMS assignment or assessment carried out in class. A summary printout may be inserted into student folders of Teams homework feedback.	

Curriculum Content: Teach the Spec content

 Lessons follow on from PRE-READING students have undertaken in preparation for the lesson as part of their independent study.

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IIV	KS5 Chemistry	Notebook ∽ ↓	L60 Stereois	omerism - Optical				
0	Template	L51 Hess' Law and Bon	13 June 2022 13:40					
(L)	ARCHIVE	L52 RP2-c Enthalpy of						
0	Useful links	L53 Born-Haber Cycles						
	ARCHIVE	L54 Entropy	Spec Link	Optical isomerism (A-level only)				
	ARCHIVE	L55 Rate Equation and		Compounds that contain an asymmetric carbon atom form stereoisomers that				
	RR Year 12	L56 RP07 Measuring th	FIIO	differ in their effect on plane polarised light. This type of isomerism is called optical isomerism.				
	RR Year 13	L57 Rate equation-Usi	Knowledge	Content				
	Y12 L01-38	L58 RP07 Measuring th	3.3.1 Introduction to organic	 Optical isomerism is a form of stereoisomerism and occurs as a result of chirality in molecules, limited to molecules with a single chiral centre. 				
	Y12 L39-7	L59 Aldehydes and Ket	chemistry - this includes Structural	• An asymmetric carbon atom is chiral and gives rise to optical isomers (enantiomers),				
	Y12 L39-70	L60 Stereoisomerism	and stereoisomerism	which exist as non super-imposable mirror images and differ in their effect on plane polarised light.				
	Y13 All Les	L61 Carboxylic Acids a		• A mixture of equal amounts of enantiomers is called a racemic mixture (racemate).				
	21-23	L62 Acylation - Nucleo		 Aldehydes and unsymmetrical ketones form mixtures of enantiomers when they react with KCN followed by dilute acid. 	:			
	MO Yr12 2	L63 RP10 Preparation		,				
	коѕ	L64 RP10 Test for purit		 Students should be able to: draw the structural formulas and displayed formulas of enantiomers 				
		L65 RP10 Preparation		 understand how racemic mixtures (racemates) are formed and why they are optically inactive. 				
		L66 Polymers		Opportunities for skills development	•			
		L67 Aromatic Theory		MS 4.1, 4.2 and 4.3 Students could be asked to recognise the presence of a chiral centre in a given structure in 2D or 3D forms. They could also be asked to draw the 3D representation o	E			
		L68 Amines		chiral centres in various species.				
		L69 amino acids and pr		Students understand the origin of optical isomerism. AT a and k PS 1.2				
		L70 Enzymes and DNA		Passing polarised light through a solution of sucrose.				
		L71 Chromatography		From				

Independent Study

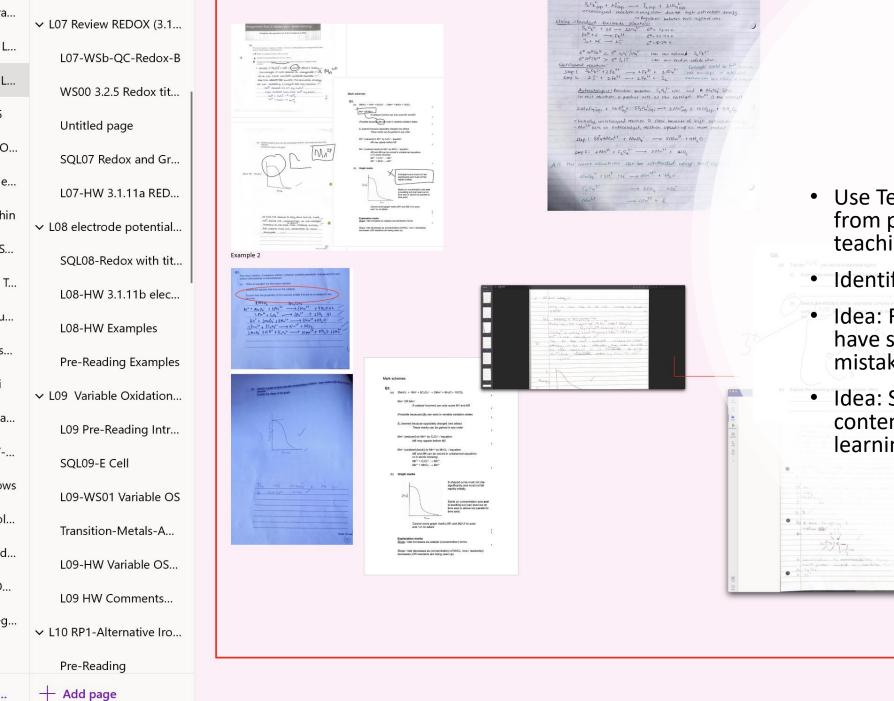
- Student to produce, at least, one page work on Pre-reading for a numbered lesson and later the following week complete at least one page of work for a post lesson review as their independent study.
- All students must be told what the next weeks lesson is on via their Curriculum Journey. Often this will be the next numbered lesson in the curriculum journey and students should be directed to the resources on SharePoint (IM KS5 Chemistry). OneNote has the relevant spec link.
- Students should identify what content will be covered, included relevant notes (and definitions) for theory or worked examples for calculations.

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Y12 L39-7	L59 Aldehydes and Ket	to organic chemistry - this			-		(apantiama)					
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Identifying misconceptions: Using Teams to check Independent work and HW.

- Try to check HW returns prior to the next lesson
- Are students completing Pre-reading?
- Are students completing HW to standard?
- Where are the common difficulties?

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- Use Teams HW and independent study from pre or post lesson work to inform teaching and learning
- Identify and address misconceptions
- Idea: Re-use HW question as a starter, have students learnt from their mistakes?
- Idea: Students can introduce lesson content using their independent prelearning.