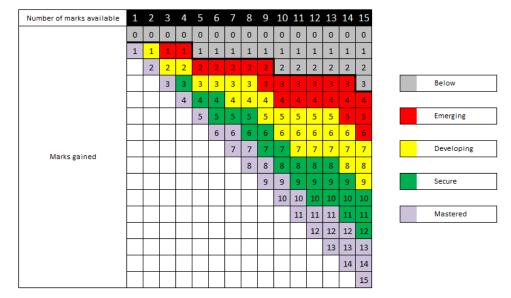# SCIENCE

KS3 Assessment

Modular assessment is carried out after each topic has been studied. These are common to all pupils and completed online. Pupils are provided with a word splat mat to assist with the spelling of tier 3 key scientific terms.

The progress of pupils and groups are continually monitored in order to ensure that the level of curriculum and support is appropriate.

Test results are recorded in line with the school's "I can" framework of mastery, secure, developing, emerging and below.

As we use a numerical scoring system we have developed a sliding scale to fit the above framework shown in the INTENT document for every question to ensure consistent application.

KS3 Matrix

Number of marks available	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2	2	2	2	2	2	2
			3	3	3	3	3	3	3	3	3	3	3	3	3
				4	4	4	4	4	4	4	4	4	4	4	4
Marks gained					5	5	5	5	5	5	5	5	5	5	5
						6	6	6	6	6	6	6	6	6	6
							7	7	7	7	7	7	7	7	7
								8	8	8	8	8	8	8	8
									9	9	9	9	9	9	9
										10	10	10	10	10	10
											11	11	11	11	11
												12	12	12	12
													13	13	13
														14	14
															15

Legend:
- Below (grey)
- Emerging (red)
- Developing (yellow)
- Secure (green)
- Mastered (purple)

At the end of Years 7 and 8 pupils undertake a written exam covering all the modules they have studied throughout the year. Each exam contains one extended writing question.

The data from the exams and modular test results in Years 7 and 8 is used as part of the whole school overview in order to monitor progress, as well as informing decisions regarding grouping and banding for the following academic year.

The modular assessment continues for the three topics studied in Year 9. Towards the end of Science KS3 pupils sit three exams. One in each of the subjects: Biology, Chemistry and Physics. This is practice for their GCSE exams where they sit multiple papers. These results, along with test data are used to inform initial GCSE teaching groups for KS4 commencement in January.

KS4 Assessment

Each of the KS4 topics outlined above follow a common assessment pathway as follows:

Topic checklist

An outline of the key areas of the specification to be taught within this topic is given to each student to attach into their exercise books. The document also contains useful links to further support. Students are also advised to enter revision guide page numbers alongside each specification item as they are addressed in class. This helps them when revising and makes this a working document.

End of Topic assessment test

Each of the items on the checklist are assessed after the topic has been taught. This is done via a paper test.

The tests have been carefully compiled in the department to ensure that every area of the course specification is tested and individual tests are available for Triple/Combined courses, as well as for Higher and Foundation tier papers.

The test is marked by the class teacher.

Progress tracking database

End of topic test scores are recorded on the tracking database for that Year group.

This document is then used for reviewing the progress of individual learners, classes of students and the Year group as a whole.

The data from the modular test results in KS4 are used to monitor progress, as well as informing decisions regarding grouping and tier of entry for external exams.

Striving for excellence, exceeding expectation.

Modular test results from the previous cohort are compared with their GCSE results (UMS points) to produce correlation tables (see Appendix) showing the link between them. These tables are then used to derive progress tracking predictions for current cohorts in line with school policy.

Personal Learning Checklist (PLC)

A common matrix (below) is used to convert marks for each specification item into red/amber/green feedback. This is then recorded on the subject PLC database.

Number of marks available	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
			3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
				4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
					5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
						6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
							7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Marks gained								8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
									9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
										10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
											11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
												12	12	12	12	12	12	12	12	12	12	12	12	12	12
													13	13	13	13	13	13	13	13	13	13	13	13	13
														14	14	14	14	14	14	14	14	14	14	14	14
															15	15	15	15	15	15	15	15	15	15	15
																16	16	16	16	16	16	16	16	16	16
																	17	17	17	17	17	17	17	17	17
																		18	18	18	18	18	18	18	18
																			19	19	19	19	19	19	19
																				20	20	20	20	20	20
																					21	21	21	21	21
																						22	22	22	22
																							23	23	23
																								24	24
																									25

Feedback sentences

In a lesson subsequent to the test, the students are given a list of feedback sentences in the "I can" format. Using the red/amber/green PLC data, the students colour code each of the "I can" statements to reflect their performance on the test. This is intended to inform their ongoing revision.

Reflect & Improve

Striving for excellence, exceeding expectation.

In addition to the Feedback Sentences being colour coded, the students are encouraged to reflect on which areas of the topic they have performed well and those which represent areas for improvement. To facilitate immediate improvement, the students are provided with the topic Reflect & Improve sheet. This is a worksheet where every specification item is represented. With the help of exercise books, text books and any other resources available, students then work on improving their areas for improvement by answering the questions coloured red initially, followed by the amber questions.

To provide an opportunity for spaced learning, students are encouraged to return to this sheet periodically through the course to continuously refine their understanding.

Appendix 2

KS4 Correlation Table

Analysis of UMS verses Progress tracker, Class of 2019

Grade	Combined Higher	Combined Foundation	Biology Higher	Chemistry Higher	Physics Higher
9-9			>84	>84	>78
9-8					
8-8	>73		79 - 83	76 - 83	72 - 77
8-7	71 – 72				
7-7	69 – 70		75 – 78	68 - 75	66 - 71
7-6	66 – 68				
6-6	63 – 65		68 - 74	61 - 67	58 - 65
6-5	61- 62				
5-5	58 - 60	>53	63 - 67	53 - 60	51- 57
5-4	55 – 57	49 - 52			
4-4	53 - 54	45 – 48	56 - 62	46 - 52	44 - 50
4-3	51 - 52	40 – 44			
3-3	<51	36 – 39	53 - 55	42 - 45	40 - 43
3-2		31 – 35			
2-2		26 - 30			
2-1		21 - 25			
1-1		17 – 20			
0		<17			

When assigning grades to Combined Science groups consider whether they will be entered at F or H tier and then use the appropriate column.