

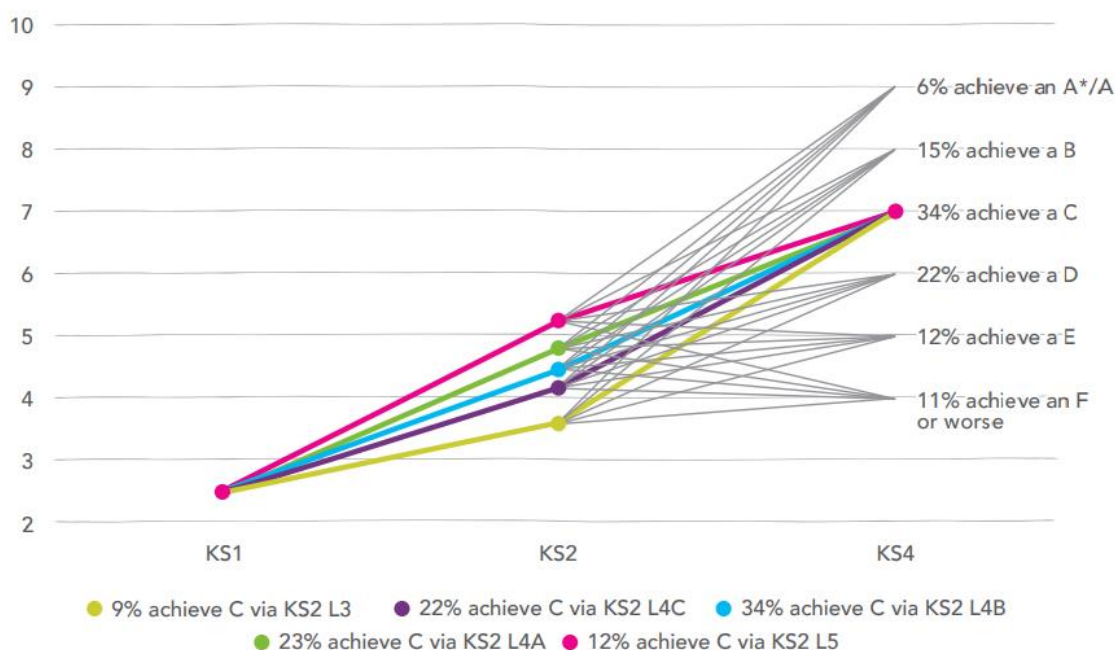
## Implementing an AWL system at KS3

The key to implementing an AWL system will be to gain acceptance from SLT and subject leaders that the approach meets the school's requirements, and addresses the points described in the report from the Commission for Assessment Without Levels. There is a presentation at [www.4matrix.org/awl](http://www.4matrix.org/awl) designed to support a discussion about AWL, which includes the presentation notes. A discussion about the ten pitfalls listed in the Executive Document is also important in appraising alternative approaches. Such considerations might support the appraisal of an existing scheme of work and its assessment and suggest how the approach might be developed.

A commonly-used approach to tracking progress at key stage 3 is to use key stage 2 attainment in English and mathematics to create estimates of attainment across all subjects that a pupil will study in the secondary school. Reports may only record whether pupils are working at, above or below the line of 'expected progress' and provide no other information. Stark summative statements early in key stage 3 may unintentionally influence pupils' views of their future success across their subjects whilst not pointing to how they could do better.

Recent work on 'Growth Mindset' suggests that when students believe they can get smarter, they will put in the effort that can lead to higher achievement. This would suggest that we should aim to develop approaches which make greater use of formative information, recognise growth, and are designed to help pupils understand how they can improve.

Evidence presented by the Fisher Family Trust shows the variation in the estimates of the probability of gaining any particular GCSE grade based on attainment at KS2.

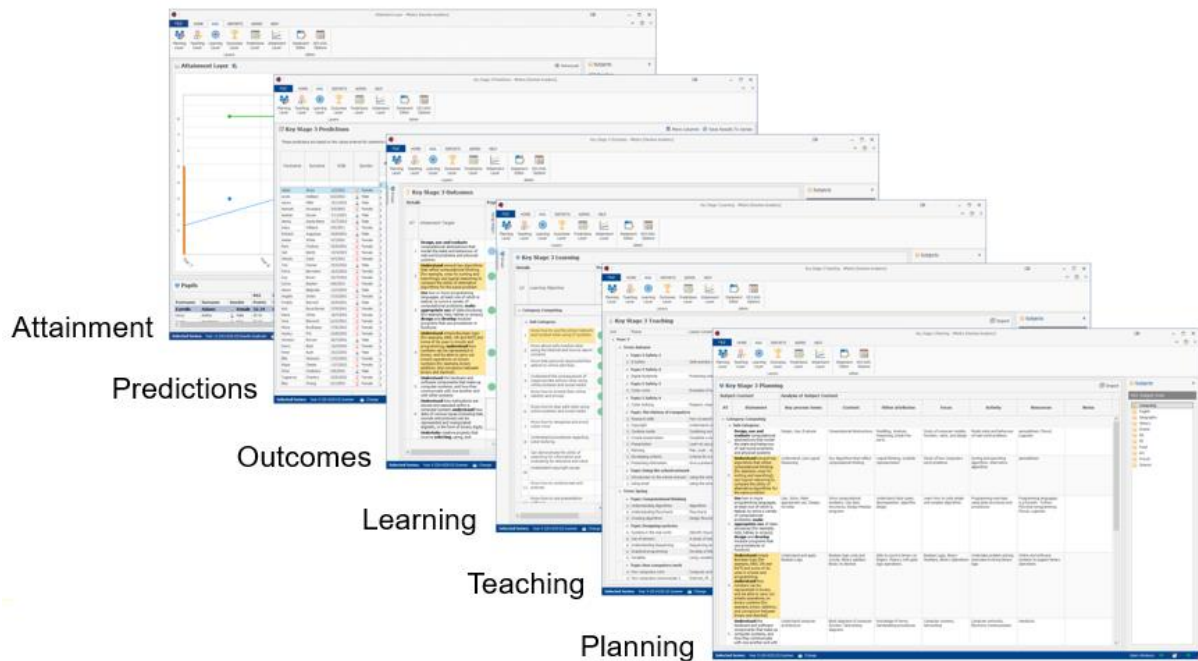


This shows us that we should not think of estimates based on KS2 attainment as 'tramlines' plotting an inevitable journey. At the start of KS3 these estimates will be the best information we have about pupil attainment at this point in time, but as pupils grow in confidence in their learning across subjects, it will be their **current performance** which will provide the best indicator of future attainment, especially when it is a mix of formative assessment and standardised tests.

Estimates based on key stage 2 attainment should be thought of as initial indicators, i.e. one of a number of dotted lines on a Flight Path of pupils' progress towards a final set of grades by year 11. Where there is an effective teaching programme in place we should expect that all pupils without obstacles to their learning could achieve well in all subjects.

An effective teaching programme will be characterised by good planning which identifies how National Curriculum topics will be taught and how pupils' learning will develop over time. It should use formative assessment as a day-to-day feedback mechanism and to identify where pupils may need more help to understand the 'key concepts and big ideas' of the subject.

The AWL approach in 4Matrix has six layers to it which represent the different stages from planning, to teaching, to assessing what has been learnt. This looks complex, but these steps would be the basis for any rigorous approach to curriculum design and assessment at key stage 3.



The benefits of the approach offered by 4Matrix is that once a Scheme of Work has been planned, the process of tracking pupil progress is very straight forward, being largely based on teachers making a note of how well pupils are mastering what they are being taught.

This is a very different approach to assessment than prior to the new National Curriculum when schools used Levels to track progress, and believed that we could accurately assess pupils' summative attainment (Attainment Targets) as we went along.

What we can do is record how well pupils are learning the set elements which constitute each Subject Content statement (Attainment Target). Only when the Programme of Study has covered the elements of each Attainment Target, will we be able to use Summative Attainment to assess pupils' holistic learning in the subject. In the early stages of key stage 3, recording what pupils are learning and how well they are learning will be more valuable than trying to determine a measure of their learning.

However, we can also use standardised tests as well, perhaps at the end of each term or each year, to assess learning up to that point in time. These values can be plotted as 'Working At' points on a Flight Path to provide an additional sighting on a likely grade that could be attained by the end of key stage 4.

For more-focused numerical reporting, a school can export standardised test scores to a spreadsheet and report these, or the difference from ('above', 'below' or 'at') a Minimum Expected Grade.

Using this approach, for each unit of work taught there would be a Learning Objective, i.e. a planned learnt outcome to that unit of work. Teachers simply indicate the extent to which the Learning Objective has been Mastered using one of four gradings - Mastered, Secure, Developing, Emerging. 4Matrix associates these gradings with the future GCSE grades which they indicate, and will then use this information to plot Flight Paths and produce reports. This provides a manageable approach and a high level of added value in terms of the information provided on each pupil's progress.

The image displays three screenshots of reports generated by the 4Matrix system. The first screenshot, titled 'KS3 Mastery Report - Learning Objectives Breakdown', shows a list of 13 Learning Objectives (LOs) for the subject of English, each with a corresponding mastery grade (Mastered, Secure, Developing, Emerging). A 'Grade Summary' table below indicates that 8 objectives were Mastered (61.54%) and 5 were Secure (38.46%). The second screenshot, 'KS3 Mastery Report - Learning Objectives Summary', features a horizontal bar chart showing mastery levels for various subjects: PE (4.75), History (6.04), Geography (4.72), Sciences (6.77), Mathematics (7.04), French (6.40), English (7.44), Design And Technology (6.75), Computing (8.44), Citizenship (6.65), and Art (7.15). A legend identifies the mastery levels: Mastered (blue), Secure (green), Developing (yellow), Emerging (orange), Not Accessing (red), and Grade Pending (grey). A data table at the bottom provides counts and percentages for each mastery level across all subjects. The third screenshot, 'End of Key Stage 3 Certificate', displays 'Estimated GCSE Grades based on KS3 performance' for a student named Mollie Adams. It lists qualifications such as Art (Grade 7), Citizenship (5), Design And Technology (5-), English (8), French (5-), Geography (4), History (5-), ICT (6-), Mathematics (6-), Music (8+), Physical Education (5-), and Science (5). Summary statistics show a total of 11 GCSE Grades 9 to 5 and 12 GCSE Grades 9 to 1. The reports are dated Year 9 (2015/2016) and include the school name, Leafy Lane High School.

Using 4Matrix also solves problems of aggregation and reporting that would need to be solved if schools were, for example, to use spreadsheets to track progress.

To set up each subject in the AWL system requires each subject leader to identify the intended Learning Outcome for each unit of work that they are to teach.

There are a range of example Schemes of Work produced by schools in the library at [www.4matrix.com/KS3library](http://www.4matrix.com/KS3library). These can be imported into 4Matrix and edited to match a subject's chosen scheme. When using an existing Scheme of Work, the planning layer can be set aside to start with as it isn't essential to the AWL mechanism. However, completion of all six layers will tell a complete story of how the school has analysed the Subject Content statements, identified Learning Objectives, developed a scheme of work to teach the components of the Attainment Targets (Subject Content statements) and is tracking pupil progress through the two key stages towards their GCSEs.

The reporting tools will provide detailed reports on what pupils are learning, and the GCSE grade which is indicated by their progress in each subject. In key stage 4 the granularity for assessment can increase to one third grade intervals, i.e. by using a 'strong', 'middle' or 'weak' grade prediction.

Once Learning Objectives have been defined, teachers can note in the Learning Layer how well pupils are mastering what they are taught. They can filter the subject, classes, and Learning Objective range to be displayed, and then click on pupil names in turn and indicate the level of mastery. The tools allows the same mastery grade to be set for all pupils in a row, making it easy to complete whole classes, and then go back and deal with the exceptions. The web-access version of 4Matrix - 4Matrix Infinity will allow teachers to record mastery levels using a browser from home.

The screenshot displays the 4Matrix software interface for Key Stage 3 Learning. The main window shows a grid of Learning Objectives (LOs) for various subjects, with a legend for mastery levels. The legend includes: Not Set (grey), Grade Pending (white), Not Accessing (grey), Emerging (red), Developing (yellow), Secure (green), and Mastered (blue). The grid shows progress for 13 pupils across 13 LOs. A pop-up menu is visible over the grid, and a sidebar on the right shows a list of available groups, including 9IT1, 9IT2, 9IT3, 9IT4, 9IT5, and 9IT6.

4Matrix will track progress by using the mastery assessments to determine what grade at GCSE is indicated by the statement. So, if a student Masters everything they are taught they will be heading towards the top grades. If they are Secure in all Learning Objectives, they will be tracking towards GCSE grades 5 and 6, and so on including combinations of these values.

Mastery Term	GCSE grade
Mastered	7,8,9
Secure	5,6
Developing	3,4
Emerging	1,2

The accuracy of an estimate increases as we gather more information over key stage 3. 4Matrix will show the most likely grade indicated by the information collected by a given point in time.

It will not be possible to make an accurate assessment of attainment in a Subject Content statement (Attainment Target) until all the learning components of that target have been taught, although standardised tests can be used from time-to-time to provide spot numerical assessments based on the content taught up to this point in time.

4Matrix can track progress over time as shown in the following graph.



The green dots are the 'Working Towards' mastery assessments. The blue dots are spot assessments, standardised tests etc. which are 'Working At' assessments. At KS4, using GCSE Assessment Objectives, the emphasis switches to using 'Working At' assessments. Note that other information, like the estimate from KS2, provides another dotted line indicator of future attainment.

The orange area represents 'below target'. This is linked from the KS2 baseline to the grey dot on the right Y-axis. It is possible for this line to be staggered if we have more than 1 target series.

The purple line is the average grade the child would need to achieve a Progress 8 score of 0, i.e. their expected progress.

The yellow dot is related to the number of Levels of Progress we expect. This expectation can be changed in the settings, e.g. from 4 Levels of Progress to 5 Levels of Progress.

This system can be adapted to suit different approaches as long as they also use identified Learning Objectives.

The 'KS3 AWL Options' screen can be used to change the names and number of the Mastery statements and the headings on the Planning Layer. In the example below ten bands have defined, e.g. as used in the PiXL Club approach to assessment using 'bands'.

Grade	Colour	Points
Grade Pend...	38, 3...	0.00
Not Accessing	165, ...	0.00
Emerging	255, ...	2.25
Developing	254, ...	4.50
Secure	170, ...	6.75
Mastered	190, ...	9.00

Grade	Colour	Points	Name
Grade Pend...	38, 3...	0.00	
Not Accessing	165, ...	0.00	
Band 1	255, ...	1.00	
Band 2	254, ...	2.00	
Band 3	170, ...	3.00	
Band 4	190, ...	4.00	
Band 5	204, ...	5.00	
Band 6	251, ...	6.00	
Band 7	196, ...	7.00	
Band 8	255, ...	8.00	
Band 9	255, ...	9.00	

If it wishes, a school can also decide not to use the AWL system in 4Matrix and just import 'Working At' GCSE grades through key stage 3 in the same way as it does at KS4.

So, in summary, there are many benefits to using the 4Matrix AWL approach to tracking pupil progress, including being able to show the quality of planning that has gone into designing a good quality foundation learning experience at key stage 3 in each subject, the ease of recording progress using both formative and summative assessment processes, teachers thinking about teaching and learning rather than numbers, and the high added-value in terms of generated reports.

There is currently an increasing focus by inspectors on the quality of the curriculum offered by schools. Ofsted has already stated that reducing key stage 3 to two years can diminish the value of foundation studies in a subject. The AWL system in 4Matrix sets out the complete picture which shows that schools have analysed the national curriculum, determined the components which need to be taught, developed Schemes of Work which teach those components, identified Learning Objectives for each unit of work, and have used a Mastery or similar approach to ensure that those pupils without obstacles to learning have an opportunity to attain within the higher-grade range.

The chief requirement for implementing this approach will be the need for subject leaders to produce a scheme of work that has been designed to teach the components of the Subject Content statements, and then to derive from it a set of Learning Objectives which will be used to track progress. It is these Learning Objectives which are used by 4Matrix to track mastery.

An obstacle to developing this approach is the natural reluctance of a school to make changes, perhaps having already implemented changes to the key stage 3 curriculum and its assessment. It will be for an SLT to decide if further change will benefit the quality of the learning experience of pupils in key stage 3.