



Maths Setting Introduction

Pupils progress mathematically at different rates and we feel that all pupils do a lot better when they are working at a speed appropriate to their ability. We also feel that the pupils who find Mathematics challenging need more support, thus we have fewer pupils in lower sets. We hope that Parents and Guardians trust our professional judgement and work with us to help their child achieve their potential.

Module tests for First to Fourth Forms

Every three or four weeks, all pupils in a year group will sit a common module test based on the material that has recently been taught. In the Second Form a module test will have two sections: Section A is the easier section and tests the essential parts of a module; Section B is an extension section that is designed to be challenging for the top sets. As a result, pupils in the lower sets are encouraged to concentrate on section A, which they will receive a separate mark for, but the overall score is recorded to aid us with setting.

For the Third form module tests are split into 3 Sections: Support, Core, and Extension. This allows us to have a common section of the test for the year group (Core) whilst simultaneously offering challenging questions to the higher sets and appropriate questions for our smaller sets. Each class will do two sections – either S and C or C and E. The S section covers the building blocks of a topic and are based on the material learnt the previous year. The Core section tests the main focus of the topic, building on the S section. The Extension Section is aimed at the ablest pupils in the year group. All tests have questions taken from past examination papers. The Core and Extension sections are replicated in the Fourth form but our sets 5,6 out of 6 break off at this stage to prepare for early entry GCSE at Foundation to give them more chances of passing their mathematics IGCSE.

Practice tests

The majority of our module tests are supported by a practice test which is available on SHOWBIE or via Foldr. (Schemes of Work and resources are also available here and pupils can also use Dr Frost for extra help). Typically, pupils will be set the practice test for homework. The test will then be gone over in class so pupils can go home and revise for the actual module test, paying particular attention to the areas they might have struggled with on the practice test. Revising for these module tests is essential and we offer a help desk facility for pupils seeking extra guidance outside lessons in addition to all the resources that we provide for independent learning.

Setting

We are passionate that pupils who try hard and perform well throughout the year deserve the opportunity to move up a Mathematics set. This inevitably means that a few pupils who are not performing so well in a higher set might have to move down a set to accommodate high achievers from a set below.

We hope that Parents and Guardians trust our Judgement, we ultimately want every pupil to get the best possible grade in Mathematics. We base our setting on test results and we create a formula that gives a strong weighting to the end of year exam result, but also factors in the module tests. Although set movements do happen during the academic year, we spend a lot of time in setting meetings in the final half term discussing the many pupils that are on the boundaries. Our starting point is the formula mentioned above but other factors are discussed such as strong performances in the UKMT challenge, and we are mindful that some pupils are better motivated in a higher set whereas others might benefit from being one of the strongest in a lower set. Very occasionally, and typically only for smaller year groups, for pupils who are at the boundary between sets we can take their preference into account.

As you are no doubt aware we achieve excellent results from all of our pupils. This is in part due to the consideration we pay to the appropriateness of the sets in which we place our pupils. We do not claim that every single pupil in Kimbolton School is in exactly the right set for their academic career; however we never lose sight of our ultimate aim in giving every pupil their best opportunity of gaining their best possible examination grade in the Fifth Form. It is our experience that the vast majority of pupils perform at their best when in a set surrounded by pupils of like ability and that pupils who find Mathematics a real challenge do better in smaller sets where more individual attention is possible. In fact, pupils in lower sets can, and have, out-performed pupils from higher sets in public exams.

Based on IGCSE results from 2018 and 2019 the following proportions of grades were attained by each set. As is clear, pupils at the top end of a set frequently outperform some pupils in sets above. NB we had 5 sets in these two cohorts, now we have 6 so set proportions are not directly comparable but still serve a useful guide.

Grade	9	8	7	6	5	4	3
Set 1	82%	18					
Set 2	36%	42	16	6			
Set 3		20	37	24	17	2	
Set 4		11	31	36	22		
Set 5			20		33	40	



In the first form we generally start by setting pupils according to their entrance test score. In November they sit a comprehensive numeracy test having sat a few mini tests throughout the term, and we make adjustments to the sets in time for January. At the end of the Spring term pupils sit an Algebra test and we make further adjustments.

From the Second Form there are tend to be 6 or 7 Mathematics sets in each year group. This allows for smaller sets four and five. Typically sets 1 to 6 will have the following number of pupils in each set; 24 (set 1), 24 (2), 22 (3), 18 (4), 10 (5), 8 (set 6).

We review our sets, and our pupil's progress, at Christmas and at Easter. For the sake of continuity, whole scale movements at these times will not happen but for the odd pupil doing exceptionally well an upward movement is possible, as is a downward movement for a pupil who is struggling to keep up with her or his classmates.

We try to limit the top sets at 24, if a new pupil arrives mid-year we are sometimes forced to go above this.

End of Year set changes

To complicate setting, there are often several new pupils in each year group who need to be added in time for the following September, final decisions can come as late as July. Therefore, there are often many changes to our Mathematics Sets at the very end of the year; for this reason, we do not tell pupils about set changes until the final week, and we ask pupils to notify their parents.

Help Desk

The Mathematics Department operates a lunchtime help desk, open from 1310 to 1410 most days of the week. Typically pupils in the Fifth and Sixth Form use this facility the most, especially in the lead up to public examinations, but we are there to help everyone and are delighted when younger pupils come to ask for help with homework or practice tests.

We view the teaching of Mathematics to be a partnership between the teaching staff, the pupils and their parents and actively encourage all pupils to take some responsibility in their learning. We will encourage pupils to attend our help desk if we feel they are struggling in class, but will not force them to.

Obviously the more pupils put into a subject the more they will get out; any additional help they receive can only be a benefit whether it be from us in help desks or at home.

SHOWBIE & FOLDR

Our Mathematics resource area on both SHOWBIE and FOLDR is a resource that is utilised by all pupils.

The scheme of work for each year group is readily available and has links to hundreds of worksheets.

Furthermore all the practice tests are available to download well in advance. After doing a practice test the mark scheme is typically released before the actual test, allowing pupils to do the practice test on their own as many times as they like in order to prepare for the main module test. These practice tests then become an excellent resource for the end of year test.

Mathematics in the Sixth Form

We are a very popular choice at A level but we only advise pupils from sets 1 and 2 who enjoy the subject to consider it. Pupils should have at least a level 8 at GCSE. There are usually four or five Mathematics sets in the Lower Sixth with 7-13 pupils in, typically three doing single Mathematics and two doing Further Mathematics. Further Mathematics is a challenging course and should only be considered by a few pupils from the top set, although we have had the occasional success story from pupils who were in the second set in the 5th Form.

APPENDIX – Setting by Year Group

Decisions about setting are done by the Head of Department, in conjunction with teachers of a year group.

Sometimes decisions are difficult and marginal. Pupils are told in person, when possible, and are asked to inform their parents. Parents are asked to respect our judgement.

First Form

In the first form pupils will initially be taught in sets based on their entrance test. After four short module tests on different aspects of number work (integer arithmetic, factors and primes, decimals, negative numbers, fractions and percentages) they will have a Numeracy Test based on all the work covered, this will be in late November or early December. We then re set the first form based on large number test (0.5 weighted) and their individual module test scores (the average is weighted 0.5). We then move onto Algebra with one lesson a fortnight dedicated to Numeracy, and our internal Numeracy Awards (an example of the Bronze, Silver and Gold awards can be found on FoldR). A few further changes take place after the Algebra test.

Setting First to Second Form

At the end of the year pupils do two papers in exam week. Setting for the second form starts by weighting the end of year papers (0.5) with the November number test (0.25) and the Algebra test (0.25). We then discuss individual pupils, and take into account new pupils joining the school.



Second Form

We typically start the Second form with sets 1 through 6. Pupils take module tests throughout the year. We try not to make too many mid-year changes, but pupils who are clearly excelling might move up a set and pupils who are struggling might move down a set. At the end of the year pupils do two papers in exam week. Setting for the third form starts by weighting the end of year papers (0.5) with the average of the module tests (0.5) We then discuss individual pupils, and take into account new pupils joining the school. At the beginning of the 3rd Form we typically have a considerable number of new pupils join us, which inevitably affects the setting at the end of the 2nd Form more than in other years. We spend a lot of time discussing the sets with this year group in particular as our aim is to try to keep the sets more stable from 3rd form through to GCSE. The following model with six sets in the 2nd form changing to seven in the third form might be help

2 nd form SET	3 rd form SET
1	Most will be in 3 rd form set 1, some who were in 2 nd form set 1 will be in 3 rd form set 2
2	Most will be in 3 rd form set 2 with a few will be placed in 3 rd form set 3
3	Some in 3 rd form set 3 but most will become 3 rd form set 4
4	The majority will be in 3 rd form set 5 (a few pupils may be placed in 3 rd form set 4)
5	set 5 in the 2 nd form will be set 6 in the 3 rd form
6	set 6 in the 2 nd form will be set 7 in the 3 rd form

Third Form

We aim to keep the sets more stable from the third form through to the fifth form, but with new pupils joining and some pupils who need to move upward or downward, there will be some changes. Setting for the third form starts by weighting the end of year papers (0.6) with the average of the module tests (0.4) We then discuss individual pupils, and take into account new pupils joining the school.

IGCSE years 3rd to 5th Form

We cover GCSE and IGCSE material throughout Ingrams. However, pupils do not officially start the GCSE course until the 3rd Form. All pupils will be prepared to sit the Edexcel International GCSE. In the third form all pupils cover the same syllabus as mentioned above but there is a change in the fourth form. In 2018:
Set 1 In addition to aiming for a level 9 or 8 in the IGCSE, pupils in set 1 will also be prepared for the AQA Level 2 Further Mathematics Qualification, and pupils in set 2 will be given the option to do this also.
Set 3 and 4 will also be prepared for the Higher entry.
Set 5 and 6 are prepared to take the Foundation level paper at the end of the 4th Form. The aim is to get a level 4 or better at the first attempt and improve at the end of the fifth form. Pupils who do not manage the 4 on their first attempt will get two more chances in the fifth form

Sixth Form

We typically have two or three sets studying mathematics A level. A top set and either a second set or two joint second sets.
We typically have two equal sets studying further mathematics A level.