

## GCSE Mathematics Linked Pair Pilot

### GCSE Methods in Mathematics GCSE Applications of Mathematics

#### Frequently Asked Questions - Updated 9 March 2015

This document contains the most up-to-date information on the Linked Pair Pilot regarding accountability measures and performance tables. We make every effort to provide regular updates on changes that will affect pilot centres and learners, always check the most update information from the Department of Education and Ofsted on current policy as this can change frequently and at short notice.

The Linked Pair is a complementary set of two GCSEs which are designed to be taken together to cover the whole maths curriculum at KS4. To meet the mathematics indicator both must have been attempted.

#### Accountability Measures

In 2016, the new Progress 8 and Attainment 8 accountability measures come into effect. More information on how they apply to the Linked Pair Pilot can be found [here](#):

If a pupil takes the mathematics linked pair GCSEs (Methods in Mathematics and Applications of Mathematics) the two results will be added together for the mathematics slot in Progress 8. These qualifications will count in the performance tables for the last time in 2016.

“Progress 8 measure in 2016 and 2017”, p.9

Mathematics qualifications are double-weighted in Progress 8; in effect, this means that for the Pilot it will be the average of the two results in Methods and Applications, rather than the better result doubled.

With effect from 29 September 2013, only a learner’s first entry to a GCSE examination will count in their school’s performance tables. See the full Department for Education announcement [here](#). We have clarified with the DfE how this announcement affects schools taking part in the Maths Linked Pair Pilot. Please find answers to questions about this below.

#### **Does this mean that the grade from the first of the two Linked Pair GCSEs is the one that will count in performance measures?**

No, it is still the better of the two grades from the GCSE *Methods in Mathematics* and *GCSE Applications of Mathematics* that counts in the mathematics performance measure. If a pupil re-sits either or both of the two Linked Pair GCSEs the higher of the first attempt of either GCSE will count as the performance measure.

For example, under the new rules, if a learner sits *Methods* in June 2014 and achieves an E grade, and then re-sits *Methods* in June 2015 and gets a C, and in the same series sits *Applications* for the first time and receives an D; it will be the D in *Applications* that counts towards the mathematics performance measure as this is the highest of the two first attempts at the Linked Pair GCSEs.

**Can a learner still re-sit a Linked Pair GCSE for a better grade?**

Yes, but the grade from this attempt will not count for headline performance measures.

**Must learners still sit both GCSEs in the Linked Pair?**

Yes, nothing has changed in this respect. If learners do not achieve an A\*-G or a U in both Linked Pair GCSEs, the performance measure will not be met.

**What about if my learners have already sat one or both of the Linked Pair GCSEs previously and we were intending to re-sit in a later series?**

Learners are permitted to re-sit qualifications completed before the announcement, and have that attempt count as a first attempt if it is higher than in a previous series. For example if a learner sat *Methods* in summer 2013, sits *Applications* in November 2013 and then goes on to re-sit *Methods* in June 2014; Assuming it is the highest grade, the June 2014 *Methods* result can count as the maths indicator because the first attempt in that particular GCSE was prior to the announcement.

**Can a learner take the Linked Pair and the mainstream GCSE Maths?**

This is still possible although we do not recommend this approach because of the impact on learners in respect of assessment burden and a possible negative impact on schools performance tables (see the question below regarding RAISEonline).

The announcement of 29<sup>th</sup> September stipulates that whichever of either the Linked Pair GCSEs or mainstream maths GCSE a learner takes first, that will count as their first attempt for performance measures.

**Specification and Assessment Availability**

The Linked Pair has been extended to enable a transition to first teaching of the new GCSE in Mathematics which will be available for first teaching September 2015.

**What is the timetable for transition from the Linked Pair to the new GCSE Mathematics?**

In line with reform for all GCSEs in England, the Linked Pair is now available as linear GCSEs only, with the exception of the November 2013 series which is the final opportunity to re-sit units and claim certification for learners following modular specifications. See assessment availability for the Linked Pair on the next page.

Date	Modular Specification	Linear Specification
Nov 2013	All assessments available ( <b>Final opportunity to claim certification for <u>modular</u> specifications.</b>	
May/Jun 2014	-	All assessments available. First certification opportunity for <u>linear</u> specification.
Nov 2014	-	All assessments available (re-sits only)
May/Jun 2015	-	All assessments available.
Nov 2015	-	All assessments available (re-sits only)
May/Jun 2016	-	All assessments available.
Nov 2016	-	All assessment available. (re-sits only) Final opportunity for certification of <u>Linked Pair GCSEs</u>

### **Do learners have to sit both GCSEs in the same series?**

No, *Methods* and *Applications* may be taken in different series. Please note that from 2014, the November series is for re-sits only.

### **Are retakes of the Linked Pair GCSE qualification allowed?**

In line with all other GCSEs, learners will be allowed to re-take linear GCSEs as many times as required. However, the better of learners' two first attempts at the Linked Pair will count in schools' performance measures.

### **Further Information on Performance Tables**

#### **How do the GCSE Mathematics Linked Pair Pilot qualifications 'count' towards performance indicators? Will they 'discount' the mainstream GCSE Mathematics?**

Notwithstanding the most recent announcement, for 2014 tables, updated [discounting rules](#) from the DfE indicate that in cases where learners have taken both pilot GCSEs and a mainstream Maths GCSE, for some performance measures the volume of two pilot GCSEs will discount the mainstream maths GCSE even if in the grade in mainstream GCSE is higher.

In the future it is likely these discounting rules will be updated to take into account the first attempt rule where the qualification attempted first will automatically discount the other for performance measures. Please check for updates.

### **What constitutes an attempt at a GCSE for the purpose of the pilot?**

The Department will count a grade A\*-C in one of the pair and a grade A\*-G or U in the second of the pair as a pass in the maths performance indicator.

For example, if a learner achieves a C grade in *Methods* and a U in *Applications*, their results will be deemed to have met the mathematics indicator. However, if they achieve a C grade in *Methods* and receive an 'X' in *Applications*, their result will not meet the mathematics indicator.

### **How will the results show up in my Validated RAISEonline Report?**

The mathematics subject family in RAISEonline now includes data for the Maths Linked Pair Pilot. Please note that unlike the 5A\* - C indicators which use the DfE discounting rules, the reporting for this are based on number of entries, not number of candidates, so you may have more entries than candidates listed in the report. In 2013, an adjustment was made on RAISEonline to take account of two entries per candidate for pilot centres. Check [RAISEonline](#) for the most up to date details on this.

## **Making Entries for the Mathematics Linked Pair**

### **Applications of Mathematics**

Unit 1 Foundation	5AM1F
Unit 1 Higher	5AM1H
Unit 2 Foundation	5AM2F
Unit 2 Higher	5AM2H

### **Methods in Mathematics**

Unit 1 Foundation	5MM1F
Unit 1 Higher	5MM1H
Unit 2 Foundation	5MM2F
Unit 2 Higher	5MM2H

## **General Questions about the Pilot**

### **Which centres can offer the pilot?**

If you are interested in joining the pilot send us an email with your centre name, centre number and your contact details to [mathsemporium@pearson.com](mailto:mathsemporium@pearson.com).

### **Why was the pilot developed?**

This pilot was originally a response in 2009 to a request for a GCSE mathematics qualification that consists of two different aspects of study; focusing on applications of mathematics in everyday contexts including statistics and financial applications, and on mathematical methods and problem-solving within mathematics. This was originally intended to be the precursor to the next GCSE mainstream qualification in 2015.

At this stage it is likely that the new GCSE Mathematics for 2015 will not follow the format of the pilot.

### **What are the differences and similarities between the pilot and the mainstream GCSE in Mathematics?**

The pilot GCSEs have the same structure as the mainstream GCSE 2012 specifications. However, learners doing GCSE Mathematics are only entered for one GCSE whereas the pilot consists of two linked GCSEs. The pilot is an innovative combination of methods and applications of mathematics, much of which will be unfamiliar to learners and will improve the range of their knowledge, understanding and skills. Some of the content has not been taught in mainstream GCSE for many years, including:

#### **Methods in Mathematics**

- Use algebra to support and construct arguments
- Use 2-D vectors to describe translations
- Understand and use the Cartesian equation of a circle centred at the origin and link to the trigonometric functions (higher tier only)
- Understand and use the midpoint and the intercept theorems (higher tier only)
- Use Venn diagrams to represent the number of possibilities and hence find probabilities.

### **Applications of Mathematics**

- Use mathematics in the context of personal and domestic finance including loan repayments, budgeting, RPI and CPI, exchange rates and commissions
- Use spreadsheets to model financial, statistical and other numerical situations
- Set up and solve problems in linear programming, finding optimal solutions (higher tier only)
- Estimate areas of irregular shapes
- Discuss and start to estimate risk.

### **Given the new content contained in both of the pilot GCSEs, are there learning resources to support pilot centres and learners?**

Yes. We have dedicated resources that will support and supplement the text book for the mainstream GCSE Mathematics to help teachers deliver the pilot. These supplements are in the form of an online book and are free to all our pilot centres on our secure pilot website. To access this, teachers will need to obtain an Edexcel Online login and password from their examinations officer.

### **What other support is available?**

During the autumn term we offer free training events for all centres on our pilots. We have also produced a free online book that supports with delivery of new topics. Pilot centres can access this resource through the secure area of our website using their Edexcel Online password.

### **Can learners take both the mainstream and the LPP GCSEs GCSE in mathematics?**

A: This would entail learners taking three GCSEs in mathematics and may not be considered best practice or advantageous to learners. There are additional implications for schools' performance measures, see earlier questions in this document.

### **Is this pilot designed with any particular type of learner or centre in mind?**

No. Edexcel has recruited a cross-section of centres to ensure a diverse range of learners take the pilot, considering foundation and higher tiers, centre type and geographical location.

### **Does it matter in which order we offer the qualifications? For example, could we offer one GCSE in Year 10 and the second in Year 11?**

There is no pre-determined order in which the two GCSEs are delivered, and of course, they may be delivered side by side across KS4. You may wish to consult guidance available from National Centre for Excellence in the Teaching of Mathematics (NCETM) for advice on best practice and delivery.

### **How are colleges, universities and employers going to view the pilot?**

The GCSE Linked Pair Pilot is fully accredited by Ofqual and both qualifications are valid GCSEs and should be recognised by stakeholders as such. If you have any concerns about how the Linked Pair GCSEs are being regarded, please contact us at [mathsemporium@pearson.com](mailto:mathsemporium@pearson.com) and we will be happy to provide assurances for third parties.

### **Q: I still have some questions related to the GCSE Linked Pair pilot. Where can I send these?**

A: We have a dedicated inbox at [mathsemporium@pearson.com](mailto:mathsemporium@pearson.com). Please send us an email.