

HFL Maths Transition Tool

Summer Term (end of year)

Making the most of the diagnostic assessments

The summer diagnostic suite contains materials to support with assessment of learning and to inform transition and autumn term planning.

The papers cover the full National Curriculum content for each year group to support teacher assessment judgements and to inform planning for the next academic year.

Each set of assessment materials for Year 1 to Year 6 contains the following:

- Paper 1 – Arithmetic
- Paper 2 – Reasoning
- Digital markbook
- Planning and transition guide

[Administering the tests](#)

[Digital markbook data entry](#)

[Using the planning and transition guide to inform teaching](#)

To enquire about bespoke, in-school training to learn how to interpret results, build a forensic profile of a class, and explore the planning guidance to inform precise teaching (INSET, teacher workshops or staff meetings), contact the HFL Primary Maths Team at primarymaths@hfleducation.org

Administering the tests

For each year group, there are two diagnostic papers:

- Paper 1 – Arithmetic
- Paper 2 – Reasoning

- Pupils should take Paper 1 before taking Paper 2.

- Pupils do not have to sit both tests on the same day.

- Teacher judgement should be used to determine the time allowed for each test.

- Younger pupils may benefit from the tests being split into smaller sections.

- The test papers can be delivered with the whole class, in smaller groups or on a one-to-one basis.

- Questions can be read to pupils.

- Breaks are permitted during the tests at the discretion of the teacher.

- Pupils should be encouraged to make jottings and record their methods in the spaces provided to enable the teacher to identify chosen strategies.

- Where squared paper has been included, there is no expectation for pupils to use a formal written method. Jottings and drawings of mental methods should also be encouraged.

<p>Equipment</p>	<p>Pupils will need the equipment specified below:</p> <ul style="list-style-type: none"> • Pencil or blue / black pen. • Rubber (optional). If rubbers are not provided, ensure that pupils clearly understand how to change their answers. • Concrete apparatus which are part of everyday lessons and therefore familiar to pupils (individual sets would be most appropriate). Teachers may wish to make an informal note of which pupils choose to use resources.
<p>Assistance</p>	<p>Questions may be read to pupils on a one-to-one, small group or whole class basis. However, only read words and not numbers that are not written as words or mathematical symbols such as +.</p> <p>If a pupil asks a question concerning a mathematical symbol or the meaning of a word, ask them to think about it and try to remember. Reassure them that it can be discussed after the test.</p> <p>Pupils can choose to use familiar concrete resources during the test to support them in identifying the correct answer.</p> <p>Pupils are permitted to draw or make jottings to support them in identifying the correct answer.</p> <p>Consider if a pupil would benefit from a scribe or breaks in the test.</p>
<p>At the start of the test.</p>	<p>Ask pupils to write their name on the front of the booklet.</p> <p>Once completed, ask pupils to open their test booklets and explain that everyone is going to do a practice question together.</p> <p>Ask the pupils to put their finger on the question and read the question out loud to the pupils, including numbers in this case.</p> <p>Ask them to look at the boxes under the question. Explain that these are the four choices of answer to the question. Talk through the question together and come to a decision around an answer choice. Model how to indicate answer choice on the paper. Pupils could tick or circle the answer but for some pupils, another mark may be easier and more reliable.</p> <p>Check that all pupils understand what they need to do to answer the question and that they have marked it clearly on their booklet.</p>

	<p>Discuss with pupils what they should do if they (<i>suggestions in italics</i>):</p> <ul style="list-style-type: none"> • want to change their mind about an answer (<i>cross it out clearly and circle another</i>) • can't answer a question (<i>move on to the next one and come back to it later</i>) • want something explained or have a question (<i>raise hand and wait for an adult to come over</i>) <p>Explain to pupils that they can use any of the space on the test paper as working out / thinking space and that they can draw or write anything that might help them answer the question.</p> <p><u>If there will be a set time limit</u>, consider sharing this with pupils. Explain what will happen if they do not complete the test within the time. It is down to teacher discretion to allow additional time or to allow a pupil to complete the test at a different time. A break may be beneficial to some pupils.</p> <p>Remind pupils to check their answers and not to talk to the other pupils about their answers during the test.</p> <p>Check whether pupils have any further questions before starting the test.</p>
<p>Marking the tests</p>	<p>The planning and transition guidance contains answers to each test question. These can be found in the tables next to each question (arithmetic paper followed by reasoning paper).</p> <p>Pupil choices should be entered into the relevant summer term diagnostic markbook (Excel spreadsheet).</p> <p>See further guidance (Digital markbook data entry).</p> <p>Teachers may choose to enter the pupil choices directly onto the markbook. There is no need to physically mark the papers.</p>

Digital markbook data entry

1. Navigating the markbook

1.1 Open the markbook document

1.2 Note that the tabs at the bottom of the worksheet are colour-coded.

These blue tabs require data input.

Paper 1 Multiple Choice INPUT

Paper 2 Multiple Choice INPUT

These teal tabs contain summaries and filterable charts.

Multiple Choice Summary

Pupil Summary

Percentage Correct

Paper 1 Correct Response

Paper 2 Correct Response

Milestone Summary

2. Entering pupil data

2.1 Paper 1 Multiple Choice INPUT

Enter Paper 1 data by clicking on the tab.

Year 2		Question Milestone			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Pupil name	Current attainment	PPG	EAL	Other	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Alice	GDS				D	A	C	C	B	A	D	C	D	C	A	C	B	C	A
Ben	WTS				B	B	C	C	B	B	C	C	D		C	C	C	C	A
Ciara	EXS				D	A	C	C	C	A	D	C	B	C	C	D	C	C	C
Del	GDS				D	A	C	C	B	A	D	C	D	C	A	C	B	C	A
Elijah	EXS	y			D	A	C	C	C	D	D	C	A	D	B	C	B	C	A
Fred	GDS				D	A	C	C	C	A	D	C	A	D	A	D	B	C	A

Pupil information fields

Multiple-choice answer fields
(Correct responses will automatically turn green.)

Pupil name: Enter pupil name or other pupil reference

Note – The maximum number of pupils that can be added to each markbook is 40. Where a year group exceeds this number, classes should be entered on separate copies of the markbook.

Current attainment: This should reflect the teacher's current teacher assessment judgement, according to the school's assessment procedures. An example is shown above.

PPG / EAL: Pupils who are eligible for the PPG and / or who have English as an Additional Language should be recorded using a Y in the relevant column.

Other: This field should be used to record any other relevant information about pupils, e.g., SEND, intervention group.

Multiple-choice answer fields

The response code is based on the arrangement of answers shown below:

6. 9×2

A 99

B 18

C 19

D 22

Enter pupil responses to each question using A, B, C, D or NR (no response). A NR code should be used where there is no answer, or the response is ambiguous. Cells should not be left blank as this may affect the summary reports.

For pupils who are absent for the test, record all responses as NR.

The markbook will only accept capital letters.

2.2 Paper 2 Multiple Choice INPUT

Pupil information fields will auto-populate on the Paper 2 sheet using information completed for Paper 1.

Enter pupil responses in the same way as in Paper 1.

2.3 Activate the data reports and response summaries.

[Click here to Run Report](#)

This can be found on the Pupil 2 Multiple-Choice INPUT tab.

Note: Repeat this step if data is added to or adjusted.

3. Analysing the markbook

3.1 Sorting the INPUT TABLES

Year 2		Question Milestone	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
		Correct response	D	A	C	C	B	A	D	C	D	C	A	C	B	C	A		
Pupil name	Current attainment	PPG	EAL	Other	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Alice	GDS				D	A	C	A	B	B	D	C	D	C	A	C	B	C	A
Ben	WTS				B	B	C		B	B	C	C	D		C	C	C	A	A
Ciara	EXS				D	A	C	C	C	A	D	C	B	C	C	D	C	C	A
Del	GDS				D	A	C	C	B	A	D	C	D	C	A	C	B	C	A
Elijah	EXS	y			D	A	C	C	C	D	D	C	A	D	B	C	B	C	A
Fred	GDS				D	A	C	C	C	A	D	C	A	D	A	D	B	C	A

Click the filter icon to sort by current attainment. This may help to highlight where pupil outcomes in the test raise questions and where further investigation with that pupil would be useful.

It should be noted that a test captures a snapshot in time and outcomes should be used in conjunction with ongoing, day-to-day teacher assessment.

Groups of pupils can also be filtered by current attainment or using the PPG, EAL or Other fields.

3.2 Response summaries

Multiple Choice Summary

Kingfishers															
Paper 1 Response Options															
Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Response	D	A	C	C	B	A	D	C	D	C	A	C	B	C	A
A	3.6	78.6	0.0	7.4	0.0	60.7	14.3	0.0	14.3	7.4	69.2	32.1	3.6	3.6	64.3
B	7.1	7.1	3.6	3.7	64.3	14.3	3.6	3.6	7.1	0.0	11.5	0.0	67.9	17.9	3.6
C	3.6	7.1	92.9	85.2	28.6	7.1	10.7	89.3	10.7	77.8	7.7	57.1	14.3	75.0	28.6
D	85.7	7.1	0.0	3.7	7.1	14.3	71.4	7.1	67.9	14.8	11.5	10.7	10.7	3.6	3.6
NR	0.0	0.0	3.6	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Paper 2 Response Options															
Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Response	C	D	B	C	A	B	B	B	D	A	D	C	B	A	D
A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
D	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

The Multiple Choice Summary table shows the percentage of pupils who chose each question response. The correct response is highlighted in green. Tables within the planning and transition guide suggest specific pupil errors and misconceptions for each incorrect choice and identify key learning to revisit prior to teaching new content.

Pupil Summary

Kingfishers		Run report for data update			Sort by name		Sort by % correct	
Pupil Name	Current attainment	PPG	EAL	Other	Paper 1	Paper 2	Total	Percentage correct
Alice	GDS				13	0	13	43.33
Ben	WTS				7	0	7	23.33
Ciara	EXS				9	0	9	30.00
Del	GDS				15	0	15	50.00
Elijah	EXS	y			10	0	10	33.33
Fred	GDS				11	0	11	36.67

The Pupil Summary table shows pupil performance across the two papers. Filters enable sorting by name and by percentage correct.

Note: To ensure **all** data has been included, click “Run report for data update”.

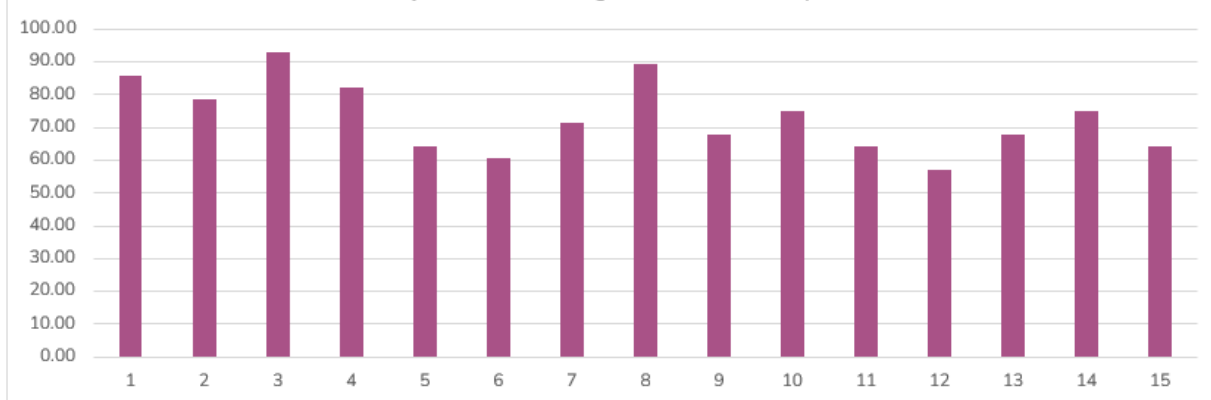
3.3 Pupil data reports

Percentage Correct

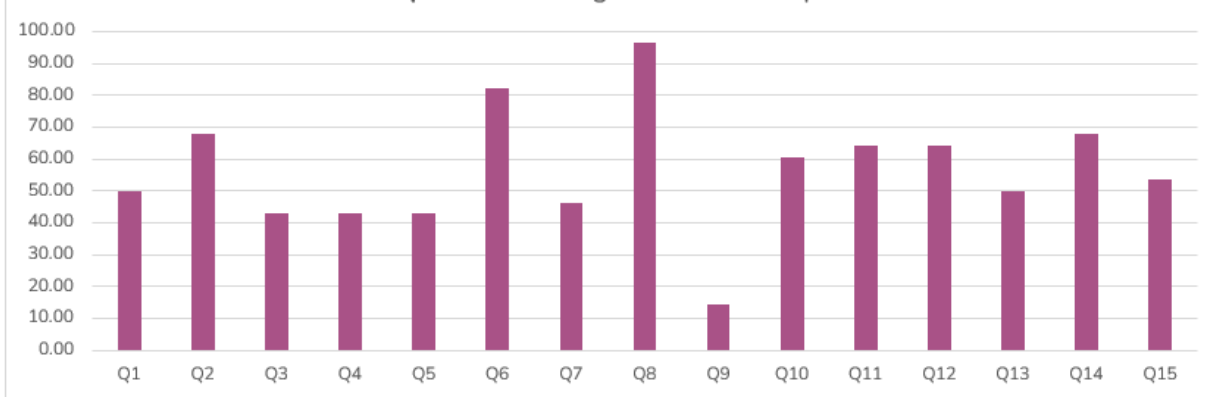
These charts show the number of correct responses for each question as a percentage for rapid overviews of performance. These may indicate further lines of interrogation through the filters on the Multiple-Choice INPUT tabs. Reference to the planning and transition guide will then provide indication of possible errors and identify key teaching.

Kingfishers

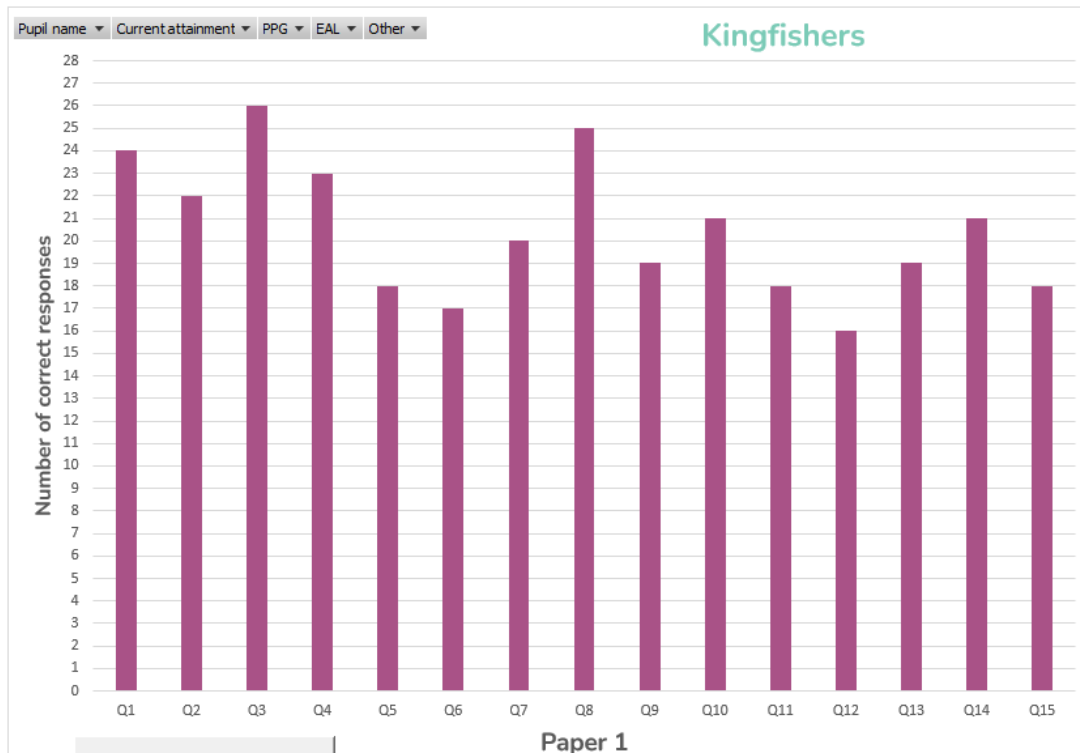
Paper 1 Percentage Correct All Pupils



Paper 2 Percentage Correct All Pupils

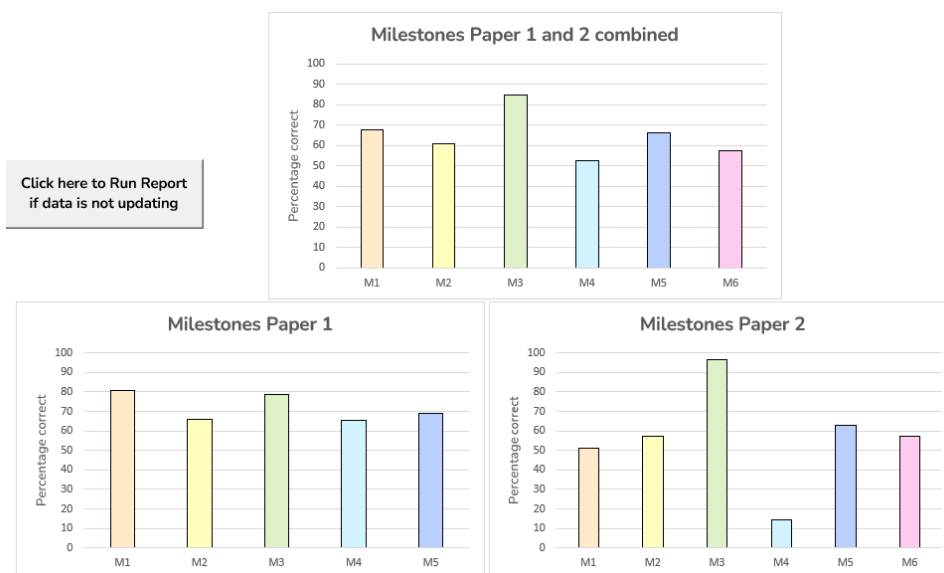


These reports show the number of pupils answering each question correctly.



These charts have filterable fields. Multiple filters can be applied at any one time to enable forensic investigation of the class data.

Milestone Summary



These charts show data analysed by year group curriculum milestones. These may indicate further lines of interrogation and particular focus areas of teaching. Reference to the planning and transition guide will then provide indication of possible errors and identify key teaching.

Using the planning guide to inform teaching

The diagnostic materials are carefully designed to identify misconceptions and errors to directly inform the upcoming term's teaching. For this reason, there is no threshold 'pass mark'.

However, outcomes from the tests will inform teacher assessment across the mathematics curriculum for each year group.


For each question, there is a:

- copy of the question and multiple-choice options
- table showing:
 - possible gaps linked to the response
 - upcoming teaching that builds on understanding of this concept
 - recommended pre-teaching to support with tracking back to enable access to upcoming age-related content.

5. $16 = 6 + \square$

A 11 B 10

C 22 D 1




	Possible gap	Year 2 teaching	Recommended pre-teaching
A	Security of counting on strategy – included starting number in the count, e.g. 6, 7, 8... 16	Counting on and back in ones	Secure counting on
B	Correct response		
C	Understanding of part whole relationships	Regrouping numbers 11 - 20	Connect varied representations of part whole with unknown part or whole
D	Understanding of place value – chose 1 one rather than 1 ten	Regrouping 10 ones for 1 ten	Ten and some more

Year 1 moving to Year 2

11. Some of the factors of a number are: 8, 4, 3, 6
What could the number be?

A 8 B 12

C 16 D 48



	Possible gap	Year 5 teaching	Recommended pre-teaching
A	Insecure in the understanding of factors and multiples	Mental strategies for multiplication and division and properties of number	Applying times tables facts and understanding factors
B	Recognised multiples of 3, 4 and 6 but may be insecure in multiples of 8		
C	Recognised multiples of 3, 4 and 8 but may be insecure in multiples of 6		
D	Correct response		

Year 4 moving to Year 5

Teachers can then consider how they will intervene with individual pupils, small groups, or the whole class. Further information can be found in the planning and transition guides.