

Essex Educational Psychology Service Maths Intervention Assessment

The EPS Maths Intervention (EPS MI) is a programme of number-based learning sessions designed to boost and secure the basic number skills expected in Key Stage 1. The content and delivery of the programme has been developed from evidence-based psychological research. The programme has successfully been used with pupils from Key Stage 1 to Key Stage 4.

The EPS MI is a 12 week programme which will increase pupils' arithmetical skills. On average pupils make double the rate of progress on standardised assessments when compared to the progress made by pupils not using the intervention - see the peer reviewed research journal publication article: Ros Somerville, Kate Ayre, Daniel Tunbridge, Katy Cole, Richard Stollery & Mary Sanders (2015) Firm foundations: the effectiveness of an educational psychologist developed intervention targeting early numeracy skills, *Educational Psychology in Practice*, 31:3, 265-278.

In order to receive full training and comprehensive supporting resources for assessment and intervention, schools will need to attend the EPS MI training course – details are available via the SEND Training Offer on the Essex Schools Infolink.

How to use

A basic version of the EPS MI assessment is given below.

- The following marking key should be used in each box to indicate the pupil's level of learning:
 - = Not Known/incorrect;
 - A = Accuracy level (correct but slow/hesitates/self-corrects);
 - F = Fluency level (correct and fluent/automatic virtually every time/"finger click quick")
- Use this detailed analysis to inform teaching and interventions carried out with the pupil and monitor impact.
- Keep practising and revisiting the skills the pupil already knows – to support ongoing Fluency (and therefore increasing likelihood of memory and use over time).
- Choose one skill they are not sure of (at Accuracy level, rather than one they do not yet know at all) and teach this specifically, alongside previously learnt items (Cumulative Learning).
- Select the next skill to teach based on the order they are given in this assessment.

Pupil's name: _____

Year group: _____

Assessment date: _____

DOMAIN	SUB-DOMAIN	SKILLS PROGRESSION							
COUNTING	Rote Counting	Forward in 1's from 1 - 9	Forwards in 1's between any numbers 1 - 9	Forwards in 1's from 9 - 13	Forwards in 1's from 13 - 20	Forwards in 1's between any numbers 1 - 20	Forwards in 2's between any numbers 1- 20	Forwards in 10's from any number up to 100	Forwards in 2's, 5's and 10's up to 100
	Rational Counting	Points to & counts marks 1 - 9	Counts marks, identifies last number up to 9	Counts marks, identifies last number up to 20	Makes set of given size up to 20	Counts sets of objects in 10's and 1's			
	Backward Counting	Counts back in 1's from 3	Counts back in 1's from 5	Counts back in 1's from 10	Counts back in 1's from any number <10	Counts back in 1's from 20	Counts back in 2's from any number <10	Counts back in 2's from any number <20	Counts back in 1's, 2's and 10's - numbers <100
NUMBER IDENTIFICATION	Recognition of Numbers	Points to number up to 5	Points to number up to 9	Points to numbers between 9 and 13	Points to numbers up to 20	Points to numbers up to 100	Points to the tens digit and units digit		
	Reading Numbers	Reads numbers up to 5	Reads numbers up to 9	Reads numbers between 9 and 13	Reads numbers up to 20	Reads numbers up to 100	Says the value of each digit in a two digit number		
	Matching Numbers and Sets	Matches a number to a set of objects to 5	Matches a number to a set of objects to 9	Matches a number to a set of objects to 13	Matches a number to a set of objects to 20	Matches a number to a set of objects to 100			
	Writing Numbers	Writes a number given orally up to 5	Writes a number given orally up to 9	Writes a number given orally between 9 and 13	Writes a number given orally up to 20	Writes a number given orally up to 100			
	Comparing Numbers	Identifies the bigger /smaller of two numbers up to 5	Identifies the bigger /smaller of two numbers up to 9	Identifies the bigger /smaller of two numbers up to 20	Identifies the bigger /smaller of two numbers up to 100	Places a series of 3 or more numbers in size order			
MULTIPLICATION AND DIVISION	Multiplication	Makes two sets of a number and adds - to 10	Uses word 'double' correctly	Makes two sets of a number and adds - to 20	Makes 2,3,4 or 5 equal sets and adds them - to 20				
	Division	Shares set equally between 2 groups - to 10	Uses word 'share' correctly	Shares set and says how many in each group - to 10	Shares set and says how many in each group - to 20	Shares set equally between 2,3,4, or 5			
	Written Multiplication and Division	Recognises 'x' sign	Recognises 'x' sign in a number sentence	Recognises '÷' sign	Recognises '÷' sign in a number sentence	Recognises '=' sign	Recognises '=' sign in a number sentence	Recognises all signs together in a number sequence	Completes simple multiplication and division sums
ADDITION AND SUBTRACTION	Addition	Counts 2 sets of marks together and gives total - to 9	Counts on from first number to find total - to 9	Counts 2 sets of marks together and gives total - to 20	Counts on from larger number to give total - to 20	Counts three sets of marks to find total - to 20			
	Subtraction	Takes number from larger set and gives answer - to 9	Independently takes number from larger set & gives answer - to 9	Independently takes number from larger set & gives answer - to 20					
	Written Addition and Subtraction	Recognises '+' sign	Recognises '+' sign in a number sentence	Recognises '-' sign	Recognises '-' sign in a number sentence	Recognises '=' sign	Recognises '=' sign in a number sentence	Recognises all signs together in a number sequence	Completes simple addition and subtraction sums