

To: Headteachers of schools booked to take part in Success@Arithmetic

SCHOOL PREPARATION FOR SUCCESS@ARITHMETIC TRAINING

Welcome to Success@Arithmetic! Here is some information about the intervention and how to prepare for it before your Lead Teacher and Teaching Assistant come to Day 1 of the training course. Please copy this for them.

Success@Arithmetic is an Every Child Counts programme developed by Edge Hill University. Your local Every Child Counts (ECC) Provider or the school/organisation that has arranged to host the training will tell you about the dates and venue of the course. If you need any more information, please do not hesitate to contact them or the ECC Team at Edge Hill University.

I do hope that your staff and pupils enjoy and benefit from Success@Arithmetic.

Yours sincerely,



Louise Matthews, Head of Every Child Counts Mathematics

ABOUT SUCCESS@ARITHMETIC

Success@Arithmetic is an intervention for learners in Key Stages 2 and 3 who need support to become fluent at arithmetic. A Lead Teacher conducts initial diagnostic assessments and plans a programme which is delivered by a teaching assistant.

It has two versions:

Number Sense	for learners mainly in Years 3 to 5 who need support to understand the number system and become fluent with arithmetic facts
Calculation	for learners mainly in Years 5 to 8 who need support to understand calculation and develop fluency with formal written methods

Your training course will be for **ONE** of these versions, as arranged with your ECC provider or host. If you are unsure which one it will be, please check with them.

The teaching assistant delivers up to 30 forty-minute sessions to a group of up to 3 learners, 3 times a week for 8 to 10 weeks, in addition to their normal mathematics lessons. The sessions use number rods, bar modelling and written methods to build a complete mathematical picture, developing learners' arithmetical fluency.



What impact does it have?

Over 13,000 pupils in Years 3 to 9 have been supported by Success@Arithmetic in over 2,000 schools.

- They made an average **Number Age gain of 15 months in 4 months** – four times the expected rate of progress.
- **91% of them showed more confidence and interest** in learning mathematics in class after Success@Arithmetic.

The use of base-10 alongside the standard written method for subtraction is nothing short of inspirational! In over 20 years of teaching I've never seen such rapid progress.

Lesley Dixon, Lead Teacher, Bramley St Peter's CEP School, Leeds

What training and support will we get?

Your Lead Teacher and teaching assistant will attend **2½ days of training** together. They will be led by an ECC Trainer accredited by the University and will include:

- how Success@Arithmetic works
- the roles of the Lead Teacher and teaching assistant
- diagnosing learners' needs
- the curriculum and pedagogy of Success@Arithmetic
- how to deliver the sessions to learners who struggle with arithmetic
- liaising with learners' class / mathematics teachers
- using a staff meeting to share the lessons from Success@Arithmetic with colleagues

Detailed session plans and a comprehensive teaching resource pack will be provided.

Schools also receive a **one-year ECC support package** including:

- online guidance and downloadable resources
- access to the ECC online data system, providing analyses of children's progress to help schools to evaluate and demonstrate the impact of Success@Arithmetic
- telephone and e-mail support
- an optional visit to the school by the Trainer (for a fee) to support the delivery, management and evaluation of Success@Arithmetic
if you want to arrange this, please contact your ECC Provider/host or Edge Hill University
- opportunities for Every Child Counts accreditation

THINGS TO DO BEFORE THE TRAINING BEGINS

Identify a teaching assistant to implement Success@Arithmetic

A suitable teaching assistant will:

- have successful experience of supporting learners' mathematics in Key Stage 2 or 3
- be able to engage fully in training sessions that include the intervention's procedures and the mathematics curriculum
- be able to make independent decisions while planning and teaching learners, based on a understanding of their needs and with the support of a Lead Teacher

Identify a Lead Teacher to make the diagnostic assessments and support the teaching assistant

A suitable teacher will:

- be suitably experienced to give support with arithmetic proficiency
- have time to administer a Diagnostic Assessment and design an Individual Learning Plan
- have time to support the teaching assistant and liaise with the learners' teacher(s) and with senior managers

Set up a teaching area

Success@Arithmetic requires a teaching area away from the classroom where up to four pupils can sit around a table and listen carefully to their teacher and each other without distraction. They will need to engage in active and sometimes noisy activities without disturbing the work of the school.

The teaching area will need:

- a table and chairs
- storage for resources – e.g. a tray unit or labelled boxes
- wall display space at the learners' height
- an easel

Most of the resources needed for Success@Arithmetic are provided in the teaching pack. The school will also need to provide a few resources:

- base-10 apparatus
- coins (1p 10p £1)
- large sheets of paper
- felt tip pens
- pegs and pegboard
- coloured pencils
- large number of small items e.g. paperclips
- Numicon and Numicon baseboard (optional)
- playing cards (optional)

THINGS TO DO AFTER THE FIRST DAY OF TRAINING

Training on Day 1 will include guidance on these steps. You may wish to prepare them beforehand.

Choose the learners to take part in Success@Arithmetic

Success@Arithmetic works best if the right learners are chosen to take part in it.

Number Sense	The mathematics content is ideally suited to learners in later Year 3 to Year 5 who have already had some success with mathematics but who need to understand the number system and develop fluency with number facts.
Calculation	The mathematics content is ideally suited to learners in Years 5 to 8 who have a secure knowledge of the number system, place value and some number facts but who has difficulty with formal written calculation methods.

A group of up to 3 learners should be chosen who can 'gel' and learn together. In the teaching assistant's training term, we recommend a group of 2 learners. They should not normally take part in another intervention at the same time to avoid overload.

Prepare a timetable

The Lead Teacher will need one or two lessons per learner to complete initial Diagnostic Assessments. The teaching assistant will observe at least one Diagnostic Assessment lesson for each learner as part of their professional development.

Thereafter, the teaching assistant will deliver 40-minute sessions. Please allow them plenty of time to prepare for sessions, to deliver them and to talk with teachers, particularly in their training term. We suggest that the teaching assistant is timetabled for 1 hour a day and we have included two additional preparation/liaison sessions in this **example** timetable:

AN EXAMPLE OF A TEACHING ASSISTANT'S TIMETABLE FOR A STRAND OF SUCCESS@ARITHMETIC					
	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1	Preparation of steps for the strand	Step 1	Step 2	Step 3	Individual / paired support for targeted learner(s)
Week 2	Step 4	Step 5	Step 6	Individual / paired support for targeted learner(s)	Feedback and discussion with Lead Teacher / Class Teacher
Week 3	<i>If some steps are repeated with all of the learners, a third week will be needed.</i>				

Learners will engage in up to five strands in Success@Arithmetic Number Sense and four in Success@Arithmetic Calculation, so this timetable will be repeated up to five times over 10 to 15 weeks.

Make baseline assessments of the learners

Testing the learners on entry and exit is optional in Success@Arithmetic but we strongly advise schools to do so. Measuring the progress that learners make will help you to plan for their subsequent support and to evaluate the impact of Success@Arithmetic. Parents, the senior leadership team, governors, and Ofsted may all want to know how effective it has been.

It is best to use a standardised mathematics test. We recommend the following:

Number Sense	<p>Sandwell Early Numeracy Test (SENT) KS2/3</p> <p>Available from GL Assessment. A 5% discount is currently available to ECC schools that order with GL Assessment via telephone number 0330 123 5375 with the discount code GL671.</p>
Calculation	<p>Progress and Understanding in Mathematics Assessment (PUMA) Year 4</p> <p>Published by Rising Stars. A 15% discount on all PUMA materials is currently available to ECC schools that order at https://www.risingstars-uk.com/Subjects/Assessment, entering the discount code WQ0003458.</p>

Any other standardised test that caters for your learners' range of attainment will also be suitable. Please be aware, though, that some tests do not give standardised scores for learners whose attainment is well below age-related expectations and so may not help you to measure the progress of learners in Success@Arithmetic.

The school can use the secure Every Child Counts online data system to record data about learners' progress and to download and print out reports. Each report analyses the support that learners received and the progress that they made, both individually and as a group, and enables the school to compare its own outcomes with national benchmarks. You can view sample reports on the Every Child Counts website.

Start teaching!

The Lead Teacher should carry out the diagnostic assessment and the teaching assistant should start to deliver Success@Arithmetic as soon as possible after Day 1. This will enable them to get the most out of the course.

