

Fast Maths!

Teacher's Manual: Individual tutoring

Getting started:

Stopwatches:

It's not easy getting pupils to switch from counting or calculating to **automatic recall**—old habits die hard! Pupils hate getting the wrong answer, so they prefer to stick with what they know. That's why stopwatches are at the heart of *Fast Maths*.

We have used the *Accessotech Digital Handheld Sports Stopwatch Stop Watch Time Clock Alarm Counter Timer*, which is user-friendly. So far they have proved reliable and robust, and they are available for £2.99 each from Amazon.

Placement test for addition:

The placement test for addition is on p 4 of the Workbook.

- Before you start, be sure your pupil knows that it is a timed test, and they must not begin until you tell them.
- If any pupil is still writing after 7 minutes, tell them to stop. such pupils will almost certainly need a lot of work with the **flashcards**. However, they will also be the ones to make the most spectacular gains!
- The Placement Test will also be used later as a Progress Test on pp 23 and 41. Pupils will invariably be amazed at how quickly they have improved!

Getting Started—Day 1

Flashcards:

Allow about 10 minutes for each lesson—three lessons per week is ideal. Little and often is the best way to teach basic skills.

First, have your pupil cut up the addition flashcards carefully (keep the multiplication flashcards in a safe place until they are needed). Take the 1+ and 2+ flashcards and put them in the CD pocket inside the front cover, and the rest in the pocket in the back cover.

The following procedure is critical:

1. Take the cards out of the front pocket and shuffle them—tell your pupil they must shuffle the cards every time they use them.
2. Hold up the top card. If the pupil gives the right answer, ‘give’ it to them—lay it down on the table in front of them.
3. If your pupil doesn’t come up with the right answer in **one second**, just tell them the answer and ask them to repeat it.
4. Bury the card one or two back in the pack that’s still in your hand. The next time it comes up, the pupil will get it right.

Rather than struggling to recall the answer—or in this case, merely counting on fingers or toes—the pupil gets the right answer painlessly and goes out on a high note. This takes the stress out of rote learning and builds confidence. When the same card comes up in the next session, the odds are very high that the pupil will get it right the first time.

Getting Started—Day 2

Flashcard practice:

Getting the flashcard exercise right is absolutely critical—the response must be instant and automatic. If pupils have enough time to count or calculate the answer, they aren't learning anything.

Introducing workbook exercises:

1. Start every session with the flashcards. Add new flashcards as your pupil progresses through their workbook--see the directions in the black bar at the top of pages 4 and 8.
2. Tell your pupil to turn to page 2 and read it. Discuss.
3. Tell your pupil to do the first exercise on page 4. Explain how it works if necessary and check answers
4. Next, your pupil will complete the Timed Exercise. Record the time on page 3.

Assigning targets for timed exercises:

More able pupils will complete the timed exercise in under 1.15 minutes. They can progress straight to **Level 2**—*they do not need to do Lessons 2 and 3.*

Pupils with times between 1.15 and 1.30 minutes will probably achieve <1.15 minutes in the next two lessons. If a pupil consistently achieves a time of <1.15 minutes, this will continue to be their target. These pupils are in the **A-stream**.

Pupils with times between 1.30 and 2.00 minutes should be able to reduce their time to <1.30 minutes after completing the three lessons at each Level. They must always do all three lessons at each level, even when they meet their target. These pupils are in the **B-stream**. Encourage them to aim for a time of <1.15!

SEN pupils:

Pupils with times >2.00 minutes will still have to achieve a minimum time of 1.30 to progress to the next Level. They will need a lot of practice with the flashcards to do so. Encourage them to use them during breaks—it may even be worth giving them a spare set to use at home with their parents.

The slowest pupils need not attempt a timed lesson every session. They can start the session with the flashcards, complete one of the two written exercises in each lesson, and then finish with the flashcards again. In extreme cases, it may be necessary to set a higher target—say, 1.45 minutes.

Dyspraxic pupils can move up a level if they can complete all of the flashcards for the current level with an average time of 2 seconds.

Progress Tests

The first progress test is on page 22. Pupils are amazed when they find out how much their times have improved.

The most able pupils will take the first progress test within 2 or 3 weeks of starting, and the slowest will take 8 to 10 weeks.

However, this is a chance for your SEN pupils to shine: they will be the ones who have made the most dramatic progress on this test. Post their times--showing how much they have improved--and you will make their day!

Prize Competition for Addition

The test on p 42 must not be completed on the same day as the last progress test on p 41. Fill in 'Gold', 'Silver' or 'Bronze' on the line above 'AWARD'. Then sign it with the date. Pupils can cut it out of the book, colour it in, or take it home.

Moving on to Multiplication

The multiplication lessons work exactly the same as the addition lessons. However, you will have to administer the **Placement Test for Multiplication** on p 45.

Obviously, this is the time to get the multiplication flashcards out of the cupboard!