



## **CATCH UP NUMERACY: 4 KEY MESSAGES (summary)**

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- 1 Structured one-to-one intervention for learners who struggle with numeracy, based on Ann Dowker's ten components of numeracy**
- 2 Targeted to the identified needs of the individual, and maximises the effective use of resources (including 'Overcoming Barriers') and approaches already available in classrooms**
- 3 Grounded in rigorous academic research, and shown to be effective in schools across 37 local authorities**
- 4 Available as part of an accredited comprehensive, integrated and award winning training and resource package that supports both management and delivery of the intervention**

## **CATCH UP NUMERACY: 4 KEY MESSAGES (the details)**

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### **1 Structured one-to-one intervention for learners who struggle with numeracy, based on Ann Dowker's ten components of numeracy**

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- Catch Up Numeracy comprises four stages:
  - Formative assessments (which are used to produce an individualised learner profile based on an identification of a learner's strengths and gaps).
  - Identifying an appropriate focus for teaching (based on the profile and the individual learner's needs).
  - Structured individual teaching sessions (15 minutes, twice a week) which include multi-sensory learning, models and images, developing mathematical language, patterns and generalisations.
  - Monitoring and review (to monitor the learner's progress and to ensure that the intervention is targeted to their changing needs).
- Focuses on ten components of numeracy important in arithmetical development: counting verbally, counting objects, reading and writing, hundreds, tens and units, ordinal numbers, word problems, translation, derived facts, estimation, and remembered facts.

### **2 Targeted to the identified needs of the individual, and maximises the effective use of resources (including 'Overcoming Barriers') and approaches already available in classrooms**

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- Ensures that learners understand the purpose and intended outcomes of the learning, and the strategies that they are using successfully.
- Ensures that learners are aware of their strengths and builds upon them.
- Repeatedly revisits new learning, to ensure that it is properly embedded.
- Supports and encourages the use of quality-first resources already available in classrooms (for example, bead strings, Cuisenaire rods, dice, number lines, Numicon shapes, Unifix cubes...). Does not require any additional materials.
- Links to National Strategy guidance (Wave 3 'Supporting children with gaps in their mathematical understanding' materials and 'Overcoming Barriers in Mathematics' resources) have been made easily accessible (by means of Catch Up's website-based interactive tool) so that activities appropriate to the individual can easily be identified.

### **3 Grounded in rigorous academic research, and shown to be effective in schools across 37 local authorities**

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- Developed from extensive research by Dr Ann Dowker (author of 'What Works for Children with Mathematical Difficulties?', DCSF, 2009), University of Oxford: mathematical development involves independent, separately developing skills and processes (the ten components of Catch Up Numeracy)
- The Catch Up Numeracy research and development involved 154 learners in 44 schools across 11 LAs in England and Wales during 2007 and 2008 (externally evaluated by Alan Evans of Cardiff University).
- Learners in Years 2 - 6 who received Catch Up Numeracy for an average period of 4.7 months achieved average Number/Maths gains of 10.2 months (a mean ratio gain of 2.2). Standardised tests.
- Qualitative benefits include learners having increased self confidence and motivation, feeling more in control of their learning and more confident to work independently, and displaying a much improved attitude towards numeracy.
- Catch Up and Dr Dowker are working together on a 5 year longitudinal study with a group of schools in Oxford.

### **4 Available as part of an accredited, comprehensive, integrated and award winning training and resource package that supports both management and delivery of the intervention**

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- The training (£299 per trainee) comprises:
  - N1: Introducing Catch Up Numeracy (for strategy people)
  - N2: Delivering Catch Up Numeracy (3 x half days OCN accredited training for teachers and teaching assistants)
  - N3: Managing Catch Up Numeracy (half day training for teachers/SMT)
  - N4: Review and Next Steps (1 day, held six to nine months after N2, for teachers and teaching assistants).
- Trainees are each provided with a comprehensive Catch Up Numeracy file, a Catch Up Numeracy DVD, a set of management proformas, and access to the online Catch Up Numeracy list of (National Strategy linked) activities.
- No other resources are needed
- There are no additional costs