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Centre for Evaluation & Monitoring

InCAS has now evolved into **Cambridge Primary Insight**

Using InCAS to support Scotland's Curriculum for Excellence

Boosting progress in the transition year

Callum is 12 years old and enjoys school. Callum has reached the crucial transition from P7 to S1 and his teachers think a new school environment will help nurture his inquisitive nature.

Callum attends a small community school in central Scotland with small class sizes of around twenty pupils. It prides itself on having a strong pastoral support system, being involved in community activities and having high levels of student wellbeing.

Callum's school uses CEM's AfE (InCAS) assessments to track their pupils' progress. AfE (InCAS) is a personalised computer-adaptive assessment, tailored to each individual pupil according to their age and abilities, generating an age equivalent score (the age that the child is actually working at).

It then uses detailed AfE (InCAS) feedback to analyse Callum's strengths and weaknesses in 6 key cognitive areas: reading; general mathematics; developed ability; spelling; mental arithmetic; and attitudes.

Feedback provides a holistic profile

The feedback from these assessments provides a holistic profile of each individual's strengths and learning needs.

Feedback is also available at class and cohort level giving a full overview of results. This is useful from a management perspective for comparing groups of pupils and monitoring standards over time.

Feedback for each individual and class is available in table and chart formats, presenting information in an easy to interpret, visual way.

Age standardised scores offer an insight into pupil performance in the context of a nationally representative sample

		Age Equivalent Scores (Years:Months)	
		Achievement	
Name	Age (Years:Months)	Reading	Gen Maths
James	12:0	7:5	9:11
Paul	11:6	11:5	9:11
Callum	12:0	13:1	11:4
Kirsty	11:7	11:8	10:10

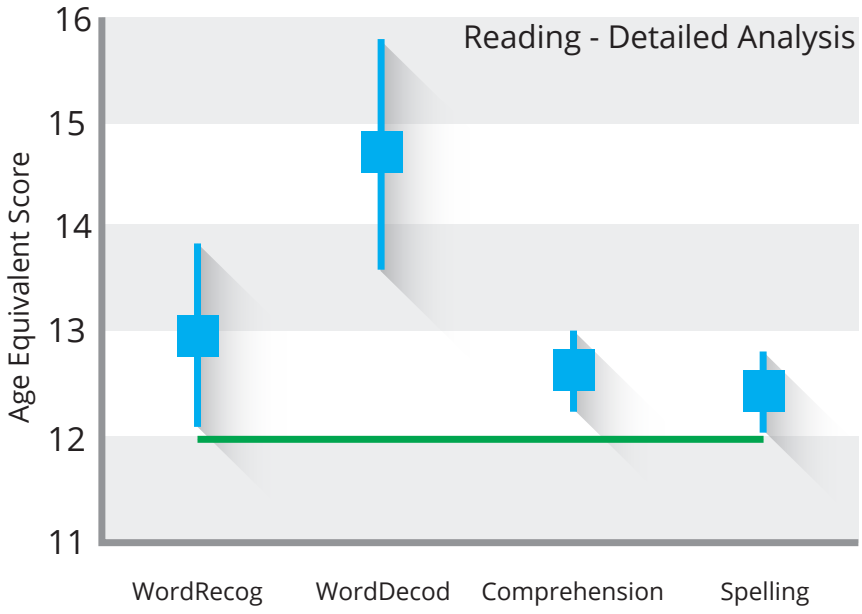
Reading: an exercise for the mind

In the reading assessment, approximately two thirds of children will achieve standardised scores between 85 and 115. Callum scored 108 in his overall reading assessment, which just falls in the upper end of the average attainment scale.

In all sections of the reading assessment, Callum achieved an age equivalent score above his chronological age, showing him performing beyond expectation.

Callum's word decoding score is his strong point. This section requires students to match complex words to their sounds and recognise patterns that make syllables and words.

Callum's teachers encourage his keen and positive attitude towards reading advanced texts and he now participates in cross-age peer-reading activities at school, sharing his enjoyment of reading with younger children.



Scores charts give you a full profile of each child. The cognitive profile charts allow you to compare the age equivalent scores for an individual child across each section of the assessment.

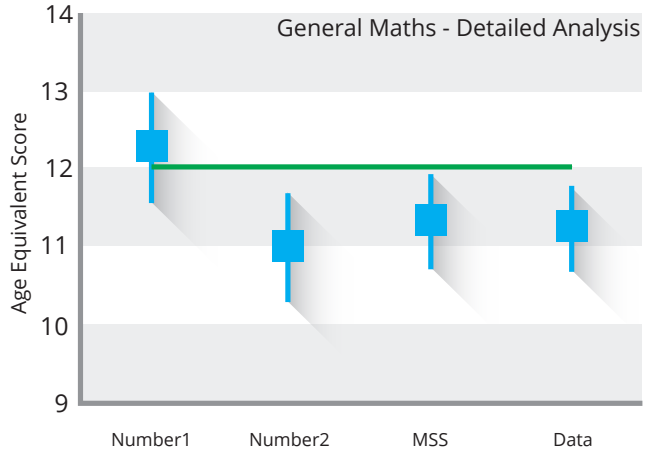
The only way to learn mathematics, is to do mathematics

Callum's overall standardised score for general mathematics is 93, and his mental arithmetic score was just 83 (statistically below national average). The adaptive nature of the AfE (InCAS) assessment means that questions are tailored to the individual pupil; this helps Callum's teachers by revealing both what Callum can and cannot do in mathematics.

Both of these scores show Callum performing below his chronological age (general mathematics places him at eleven years and four months; mental arithmetic at only ten years and six months).

His teachers state that Callum works hard in mathematics lessons, but he struggles to concentrate at times and lacks confidence when working alone on tasks. They believe Callum may benefit from a programme of one-to-one support in mental arithmetic with a special focus on subtraction and division.

We know that learning in mathematics doesn't happen in isolation from other aspects of children's cognitive development: these skills will be vital to Callum for future academic success in all areas of the curriculum including arts, humanities and sciences.



The General Maths age-equivalent chart gives an at-a-glance profile of pupil scores from the Number 1, Number 2, Measures Shape and Space (MSS) and Data handling modules. Number 1 includes counting, informal arithmetic, partioning and place value, fractions and decimals. Number 2 includes sorting, patterns, formal arthimetic, problem solving and algebra.

Developed ability – the road to progress

The developed ability section of the assessment is used to measure the capacity each individual has to learn, think quickly and solve problems. A developed ability score is not an IQ score, but it will usually change over a student's lifetime.

Measures of developed ability are useful because they provide you with additional information as to how well the pupil is achieving in class. It is measured within AfE (InCAS) using a combination of vocabulary acquisition and non-verbal ability. It provides another perspective from which to interpret children's attainment in reading and mathematics*.

Standardised Scores				
First Name	Reading	General Maths	Mental Arithmetic	Developed Ability
Alex	111	99	91	117
Callum	108	93	83	107
Charlie	106	81	86	104
James	105	88	81	103

What's next?

The AfE (InCAS) developed ability and attitudes assessments validate what Callum's teachers already knew from classroom-based observation:

If Callum becomes more confident with maths, his performance is likely to improve.

Callum would benefit from a greater focus on his mental arithmetic. Given support, he can enter S1 with a stronger attainment in this area.

Teachers should continue to challenge Callum by giving him more demanding reading work and continue with his cross-age peer-reading.

As Callum moves forward his continued progress can be tracked in the following years using CEM's AfE (MidYIS) S1 and S2 baseline assessment and AfE S2 (SOSCA) curriculum assessment.

** If you would like to know more about developed ability, see Tymms, P. (2010). Ability Testing. In International Encyclopedia of Education. Peterson, P., Baker, E. & McGaw, B. Oxford: Elsevier. 4: 1-6.*