Mapping the Test List to the New Report Format

SASC Conference 2025

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Aims of this course

- To provide the key areas of the report format
- To provide tests which address these areas
- To divide up the test list into areas that will be included, as opposed to those that could.
- To enable you to make an informed choice about which tests to use.

What I have not included here (to save space)

- UK/US Norms

- Age ranges

- Publisher

- Link to SASC Guidance

- Qualification levels

All of this information can be found on the STEC list.

The Selection of Tests Chosen will…..

- Use the background information
- Prioritise test areas that add useful information relevant to the reason for referral and the emerging findings of the assessment
- Have the potential to contribute meaningfully to the conclusions of the report
- Avoid under or over-testing and inclusion of multiple tests in the same area, if no further information can be gained
- Consider the individuals age and capacity to engage with the assessment process
- Reflect accepted definitions of specific learning difficulties.

Many tests comprise of subtests which can be combined to give an overall measure of the skill being tested–sometimes called a Composite score, a Cluster score, a Factor score or an Index score.

These are often considered to be more reliable than an individual subtest result.

In this test list, some of the subtests listed are part of composites/clusters/factors/indexes. If these directly apply to the specific area being examined, they are reported in the subtests column.

For some tests, the way that they are constructed means that they should not be used or reported as separate stand-alone single subtests. If this is the case an additional comment is added to the Comments column

LANGUAGE AND REASONING SKILLS

These skills are the foundation for reading, spelling and mathematics learning.

Poor phonological awareness is strongly implicated in specific learning difficulties such as dyslexia. Very poor oral (receptive and expressive) language skills are implicated in developmental language disorder (DLD).

Poor early language skills are implicated as a risk factor for dyslexia.

Good receptive and expressive language skills in the context of poor reading or mathematics attainment can indicate that the specific identified difficulties are unexpected. Such strengths may act as protective factors in the management of those difficulties.

Strengths in reasoning skills can indicate that specific identified difficulties in reading, spelling or mathematics attainment are unexpected. Such strengths may act as protective factors in the management of those difficulties.

A clear weakness in pattern or design recognition/construction may support the identification of specific mathematics difficulties.

Areas of assessment:

- Receptive language and listening comprehension.

- Expressive language.

- Verbal reasoning.

- Phonological awareness.

- Non-verbal reasoning.

This section will include:

- A standardised measure of receptive and/or expressive language skills to assess vocabulary knowledge, language structure and the ability to put thoughts into words and sentences in ways that make sense.

- Standardised measures of phonological awareness to indicate the ability to accurately identify, discriminate between and manipulate the separate units of sounds in words, known as 'phonemes'. If not reported in this section phonological awareness must be reported in another suitable section of the report (see comment 'Testing Phonological Awareness'). In a maths-focused assessment, it may not be necessary to assess phonological awareness if there is not a concern.

Receptive and/or Expressive Language

Intelligence and Development Scales Second Edition (IDS-2)	• Expressive Language • Receptive Language
Kaufman Test of Educational Achievement: Third Edition (KTEA-3)	Oral Expression
Test of Dyslexia (TOD)	TOD-C Vocabulary Composite is made up of: • Picture Vocabulary • Listening Vocabulary TOD-E: Picture Vocabulary
Wide Range Intelligence Test (WRIT)	Vocabulary
Woodcock-Johnson IV Tests of Oral Language: UK and Ireland Edition (WJ IV OL)	Picture Vocabulary
British Picture Vocabulary Scale: Third Edition BPVS3)	Understanding of single words

Woodcock-Johnson IV Tests of Cognitive Abilities (WJ IV COG)	Comprehension – Knowledge Cluster is made up of:
	
	• General Information:
	  o Where
	  o What
	• Oral Vocabulary:
	  o Synonyms
	  o Antonyms

Expressive Language

Academic Achievement Battery (AAB)	Expressive Communication Composite is made up of: • Oral Fluency • Oral Expression • Oral Production
Expressive Vocabulary Test: Third Edition (EVT-3)	Test of expressive vocabulary and word retrieval based on words in Standard American English.
Test of Adolescent/Adult Word Finding: Second Edition (TAWF-2)	Single-word expressive language tests to assess word finding problems in adolescents and adults.
Weschler Individual Achievement Test: Third Edition UK for Teachers (WIAT-III UK)	Oral Expression is made up of: • Expressive Vocabulary • Oral Word Fluency • Sentence Repetition

Phonological Awareness (2 slides)

Test	Description
Comprehensive Test of Phonological Processing 2 (CTOPP2)	Phonological Awareness Composite is made up of: • Elision • Blending Words • Phoneme Isolation Alternative Phonological Awareness Composite is made up of: • Blending Nonwords • Segmenting Nonwords
Feifer Assessment of Reading (FAR)	Phonological Awareness tests include: • Phonemic Awareness (Rhyming, Blending, Segmenting and Manipulation) • Positioning Sounds
Intelligence and Development Scales Second Edition (IDS-2)	Phonological Awareness includes: • Syllable Segmentation • Rhyme detection • Phoneme Identification • Phoneme Segmentation • Elision • Spoonerisms
Kaufman Test of Educational Achievement: Third Edition (KTEA-3)	Phonological Processing subtest covering: Blending, Rhyming, Sound Matching, Deleting Sounds, Segmenting.
Phonological Assessment Battery (PhAB2) Primary	Phonological Awareness includes tests of: Alliteration, Rhyme, Blending, Spoonerisms, Phoneme Segmentation, Phoneme Deletion.
Test of Auditory Processing Skills 4 (TAPS-4)	Phonological Processing Index is made up of: • Word Discrimination • Phonological Deletion • Phonological Blending • Syllabic Blending (supplemental)

Test of Dyslexia (TOD)	TOD-C - Phonological Awareness Composite is made up of: • Phonological Manipulation – includes two subtests: Substitution and Deletion • Blending • Segmenting TOD-E has an Early Phonological Composite which is made up of: • Rhyming • Early Segmenting
Woodcock-Johnson IV Tests of Cognitive Abilities (WJ IV COG)	Phonological Processing subtest consists of 3 parts: • Word Access • Word Fluency • Substitution
Woodcock Johnson Tests of Oral Language (WJ IV OL)	Phonetic Coding is made up of: • Segmentation • Sound Blending There are 3 additional phonological awareness subtests of: • Sound Awareness (Two subtests measuring phonological abilities) • Rhyming • Deletion

Where there are no, or insufficient indicators of unexpectedness, or where global learning difficulties are suspected, this section will include:

- A measure of verbal reasoning to assess the capacity to make conceptual links and relationships and/or

- A measure of non-verbal/visual reasoning/pattern or design recognition/construction which may assess grouping and ordering skills, pattern recognition, abstract reasoning skill, logic, problem solving and deduction

Verbal Reasoning

British Ability Scales: Third Edition (BAS3)	Verbal ability is made up of • Verbal Similarities • Word definitions
Cognitive Assessment System- Second Edition (CAS2)	Verbal Content is made up of scores from three subtests: • Verbal-Spatial Relations • Receptive Attention • Sentence Questions
Intelligence and Development Scales Second Edition (IDS-2)	Verbal Reasoning Factor is made up of : • Naming Categories • Naming Opposites
Reynolds Intellectual Assessment Scales, Second Edition (RIAS-2)	Verbal Intelligence Index is made up of: • Guess What • Verbal Reasoning
Wechsler Adult Intelligence Scale: Fourth Edition (WAIS-IV UK)	Verbal Comprehension is made up of: • Similarities • Vocabulary • Information, [Comprehension (supplementary)]
Wechsler Abbreviated Scale of Intelligence: Second Edition (WASI-II)	Verbal Ability is made up of: • Vocabulary • Similarities
Wechsler Intelligence Scale for Children: Fifth UK Edition (WISC-V[UK])	Verbal Comprehension is made up of: • Similarities • Vocabulary • Information (supplementary) • Comprehension (supplementary)
Wide Range Intelligence Test (WRIT)	Verbal Ability Composite is made up of: • Verbal Analogies • Vocabulary

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Non-Verbal Reasoning (2 slides)

British Ability Scales: Third Edition (BAS3)	Non-Verbal ability is made up of: • Matrices • Quantitative Reasoning
Cognitive Assessment System- Second Edition (CAS2)	Non-Verbal Content is made up of: • Matrices • Figure Memory • Planned Codes
Intelligence and Development Scales Second Edition (IDS-2)	Abstract Reasoning Factor is made up of: • Matrices Completion • Matrices Odd One Out
Raven's 2 Progressive Matrices	
Reynolds Intellectual Assessment Scales, Second Edition (RIAS-2)	Non- Verbal Intelligence Index is made up of: • Odd Item Out • What's Missing
Snijders-Oomen Non-Verbal Intelligence Test (SON-R 6-40)	4 subtests: • Analogies • Categories • Mosaics • Patterns
Test of Dyslexia (TOD)	TOD-C Reasoning Composite is made up of: • Picture Analogies • Geometric Analogies

Test of Nonverbal Intelligence: Fourth Edition (TONI-4)	60 items
Wechsler Adult Intelligence Scale: Fourth Edition (WAIS-IV UK)	Perceptual Reasoning is made up of: • Block Design • Matrix Reasoning • Visual Puzzles • Optional: Figure Weights and Picture Completion
Wechsler Abbreviated Scale of Intelligence: Second Edition (WASI-II)	Visual Ability is made up of: • Block Design • Matrix Reasoning.
Wechsler Intelligence Scale for Children: Fifth UK Edition (WISC-V^{UK})	Fluid Reasoning and Visual Spatial Perceptual Reasoning is made up of: • Matrix Reasoning • Figure Weights • Block Design • Visual Puzzles • Optional subtest of Picture Concepts
Wide Range Intelligence Test (WRIT)	Visual Ability Composite is made up of: • Matrices • Diamonds
Woodcock-Johnson IV Tests of Cognitive Abilities (WJ IV COG)	Fluid Reasoning Cluster is made up of: • Number Series • Concept Formation

Listening Comprehension

Academic Achievement Battery (AAB)	Listening Comprehension Composite is made up of: • Words and Sentences • Passages
Kaufman Test of Educational Achievement: Third Edition (KTEA-3)	Listening Comprehension
TAPS-4: A Language Processing Skills Assessment	Processing Oral Directions, Auditory Comprehension, Auditory Figure-Ground, (supplemental)
Tests of Dyslexia (TOD)	TOD-C: Listening Vocabulary
Wechsler Individual Achievement Test: Third Edition (WIAT-III^{UK})	Listening Comprehension includes 2 subtests: • Receptive Vocabulary • Oral Discourse Comprehension
Woodcock Johnson Tests of Oral Language (WJIV OL)	Listening Comprehension Cluster is made up of: • Oral Comprehension • Understanding directions
Woodcock Reading Mastery Tests: Third Edition (WRMT-III)	Listening Comprehension (6 years to adults)

Attainment: Reading

Persistent and sometimes severe difficulties in word and non-word decoding (reading accuracy) are typically observed in children with dyslexia learning to read and spell in English. Across all languages, difficulties in reading fluency are a key marker of dyslexia.

Reading difficulties can also predict mathematics difficulties.

Areas of assessment:

- Single-word reading

- Prose reading

- Speeded decoding

- Reading comprehension

- Comparison between listening and reading comprehension

This section will include:

- Reading speed, accuracy and fluency

- A standardised, graded, untimed, single-word reading test.

- Measures of speeded sight-word reading and non-word decoding to indicate the ability to pronounce printed words and phonemically regular non-words accurately and fluently.

- A standardised test of reading comprehension of continuous prose. (Oral is preferred but as appropriate to the age/stage of the individual). When a silent reading comprehension task is used, it is strongly recommended that oral reading of continuous prose is also included and used for qualitative analysis.

Graded Single Word Reading (untimed)

Name of Test	Subtests that could be used to examine this area:
Academic Achievement Battery (AAB)	Letter Reading (ages 4 to 8 years). Word Reading (8:0 to 85:11).
Kaufman Test of Educational Achievement: Third Edition (KTEA-3)	Letter and Word Recognition
Single Word Reading Test (SWRT)	Sold to schools. Also, to independent assessors as part of YARC Primary / Secondary (2007).
Tests of Dyslexia (TOD)	TOD-C Basic Skills Reading Composite should be used which is made up of: • Irregular Word Reading (TOD-C) • Pseudoword Reading TOD-E Letter and Sight Word recognition (TOD-E)
Wechsler Individual Achievement Test: Third Edition (WIAT-III[UK])	Word Reading
Wechsler Individual Achievement Test: Third Edition UK for Teachers (WIAT-III[UK]-T)	Word Reading
Wide Range Achievement Test: Fifth Edition (WRAT5)	Word Reading
Woodcock-Johnson IV Tests of Achievement: UK & Ireland Edition (WJ IV ACH)	Letter-Word Identification
Woodcock Reading Mastery Tests: Third Edition (WRMT-III)	Letter Identification (4:06 to 6:11) Word Identification (6:00 to 79:11)

Speeded Sight-word Reading
==(timed)==

Intelligence and Development Scales Second Edition (IDS-2)	Single Word Reading
Feifer Assessment of Reading (FAR)	Isolated Word Reading Fluency Irregular Word Reading Fluency
Tests of Dyslexia (TOD)	TOD-C Rapid Irregular Word Reading

Speeded Sight-word Reading and Non-word Decoding (timed)

Intelligence and Development Scales Second Edition (IDS-2)	Single Word Reading Single Non Word Reading
Tests of Dyslexia (TOD)	TOD-C Decoding Efficiency Composite is made up of: • Rapid Irregular word Reading • Rapid Pseudoword Reading
Test of Word Reading Efficiency: Second Edition (TOWRE-2)	Total Word Reading Efficiency Index is made up of: • Sight Word Efficiency • Phonemic Decoding Efficiency

Reading Comprehension of Continuous Prose

Reading Comprehension of Continuous Prose (silent and aloud)	Adult Reading Test: Second Edition (ART2)	Reading Comprehension, silent and aloud
Reading Comprehension of Continuous Prose (silent)	Feifer Assessment of Reading (FAR)	Silent Reading Fluency: Comprehension and Silent Reading Fluency: Rate
Reading Comprehension of Continuous Prose (aloud)	Gray Oral Reading Tests: Fifth Edition (GORT-5)	Oral Reading Index is made up of: • Reading Rate • Reading Accuracy • Reading Fluency • Reading Comprehension
Reading Comprehension of Continuous Prose (aloud)	Intelligence and Development Scales Second Edition (IDS-2)	Reading Comprehension
Reading Comprehension of Continuous Prose (silent - but can read aloud if the individual prefers this)	Kaufman Test of Educational Achievement: Third Edition (KTEA-3)	Reading Comprehension
Reading Comprehension of Continuous Prose (silent)	Tests of Dyslexia (TOD)	TOD-C Silent Reading Efficiency
Reading Comprehension of Continuous Prose (silent - but can read aloud if the individual prefers this)	Wechsler Individual Achievement Test: Third Edition (WIAT-III^{UK})	Reading Comprehension
Reading Comprehension of Continuous Prose (silent - but can read aloud if the individual prefers this)	Wechsler Individual Achievement Test: Third Edition (WIAT-III^{UK-T})	Reading Comprehension
Reading Comprehension (aloud)	York Assessment of Reading for Comprehension (Early Years and Primary) (YARC)	Reading Comprehension
Reading Comprehension (silent - but can read aloud if the individual prefers this)	York Assessment of Reading for Comprehension (Secondary) (YARC)	Reading Comprehension

Continuous Prose Reading to examine Reading Speed, Accuracy and Fluency

Academic Achievement Battery (AAB)	Reading Fluency
Adult Reading Test: Second Edition (ART2)	Prose Reading Accuracy Speed of Reading (silent and aloud)
Feifer Assessment of Reading (FAR)	Oral Reading Fluency
Kaufman Test of Educational Achievement: Third Edition (KTEA-3)	Silent Reading Fluency
Tests of Dyslexia (TOD)	TOD-C Oral Reading Efficiency
Wechsler Individual Achievement Test: Third Edition (WIAT-III^{UK})	Oral Reading Fluency: includes standardised measures of accuracy, speed and overall fluency
Wechsler Individual Achievement Test: Third Edition UK for Teachers (WIAT-III^{UK}-T)	Oral Reading Fluency: includes standardised measures of accuracy, speed and overall fluency
Woodcock-Johnson IV Tests of Achievement: UK & Ireland Edition (WJ IV ACH)	Oral Reading

This section could also include:

- The assessment ==of sub-skills involved in reading== relevant at younger ages (e.g. alphabetic knowledge, letter-sound correspondence) and incorporated at the discretion of the assessor. (e.g. TOD-E)

- A standardised ==untimed non-word reading task== to further analyse decoding skills.

- Reference to a test of ==listening comprehension== (carried out elsewhere in the assessment) to provide useful comparative information to ascertain whether comprehension issues are related only to reading skills.

Where appropriate, commentary should cover qualitative analysis of errors (without reference to specific test items), evidence of strategies being used, for example: whole word recognition, decoding fluency, expression, ability to extract information from text etc.

Non-word Reading
(untimed)

Feifer Assessment of Reading (FAR)	Nonsense Word Decoding
Tests of Dyslexia (TOD)	TOD-C Pseudoword Reading This test should be combined with the Irregular Word Reading test to form the TOD-C Basic Reading Skills Composite. TOD-E Sounds and Pseudoword
Wechsler Individual Achievement Test: Third Edition (WIAT-III^{UK})	Pseudoword Reading
Woodcock-Johnson IV Tests of Achievement: UK & Ireland Edition (WJ IV ACH)	Word Attack
Woodcock Reading Mastery Tests: Third Edition (WRMT-III)	Word Attack

ATTAINMENT – Spelling and Writing:

Across languages and age-groups persistent weaknesses in spelling, despite standard instruction, are a likely indicator of dyslexia.

Orthographic processing (the ability to form and retrieve letters, letter sequences and spelling patterns) is commonly impaired in dyslexia. Analysing orthographic skills (spelling, copying, writing and typing), alongside compositional skills (written expression) is important for identifying the impact of strengths and challenges on the individual concerned and to inform intervention.

Areas of assessment:

- Spelling skills.

- Transcription skills i.e. handwriting, copying, typing, (legibility, speed, accuracy).

- Written expression - quality and composition.

This section will include:

- A standardised graded single-word spelling test. The report should give a brief qualitative analysis of error type, without reference to specific test items.

- A prose writing task (standardised and/or for qualitative analysis only) of ability to sustain formal, compositional or academic writing skills under timed conditions. This would provide further information about writing speed and/or features such as grammar, sentence complexity, coherence, vocabulary choice, spelling accuracy, fluency and error type, writing speed and handwriting legibility. Sensitivity should be shown in the language used to describe patterns of errors.

Graded Single-Word Spelling

Academic Achievement Battery (AAB)	Spelling: Word Writing for all ages, including Spelling: Letter Writing for ages 4:00 –8:11)
Feifer Assessment of Writing (FAW)	Isolated Word Spelling
Helen Arkell Spelling Test 2 (HAST–2)	Single word spelling
Intelligence and Development Scales 2nd Edition (IDS2)	Spelling
Kaufman Test of Educational Achievement 3rd Edition (KTEA3)	Spelling
Tests of Dyslexia (TOD)	TOD-C Spelling Composite should be used which is made up of: • Regular Word Spelling • Irregular Word Spelling
Weschler Individual Achievement Test 3rd Edition UK (WIAT-III UK)	Spelling
Weschler Individual Achievement Test 3rd Edition UK -T (WIAT-III UK -T)	Spelling
Wide Range Achievement Test version 5 (WRAT5)	Spelling
Woodcock-Johnson IV Tests of Achievement: UK and Ireland Edition (WJIV ACH)	Spelling (includes tests of prewriting and individual letter writing up to age 7:05)

Additional test to explore spelling

- FAW – Homophone spelling

Prose Writing

Academic Achievement Battery (AAB)	Written Composition (15 mins) (this test does not provide a standard score for speed of writing but is marked on various areas concerning the quality of composition)
Detailed Assessment of Handwriting (DASH)	Free Writing (10 minutes) Provides a standard score for speed of writing Additional tasks include: • Copy Best • Alphabet Writing • Copy Fast There is an additional task of Graphic Speed
Detailed Assessment of Speed of Handwriting 2 (DASH-2)	Free Writing (10 minutes) Provides a standard score for speed of writing Additional tasks include: • Copy Best • Alphabet Writing • Copy Fast There is an additional task of Graphic Speed

Prose Writing (ii)

Feifer Assessment of Writing (FAW)	Compositional Writing Index is made up of: • Expository writing (5 minutes) (this test does not provide a standard score for speed of writing but is marked on various areas concerning the quality of composition) • Story Mapping (5 minutes) (this test does not provide a standard score for speed of writing but is marked on various areas concerning the quality of composition) • Copy Editing Graphomotor Index: is made up of: • Alphabet Tracing Fluency • Motor Sequencing • Copying Speed • Motor Planning
Kaufman Test of Educational Achievement 3rd Edition (KTEA3)	Writing Fluency Written Expression
Wechsler Individual Achievement Test 3rd Edition UK (WIAT-III^{UK})	Essay Composition (10 minutes) (this test does not provide a standard score for speed of writing but is marked on various areas concerning the quality of composition) Writing skills can be furthered examined using: • Sentence Combining • Sentence Building (These form the Sentence Composition composite)
Woodcock-Johnson IV Tests of Achievement: UK and Ireland Edition (WJ IV ACH)	Writing Samples Sentence Writing Fluency

ATTAINMENT – Mathematics

Areas to be assessed:

- Basic calculations.

- Graded Computation

- Mathematics reasoning.

- General Mathematics Attainment

- Problem solving.

Assessing the level of mathematics attainment can provide an initial indicator of difficulties in mathematics learning. Where persistence and severity of mathematics difficulties seem marked, this may signal the possibility of a specific learning difficulty in mathematics.

Where a comprehensive, holistic assessment of mathematics difficulties is required, this will include standardised measures of:

- Standardised timed tests that will measure automaticity in the four basic operations (+, -, x, ÷)

- Graded computation (written, untimed) to explore the individual's current levels across the four operations and to see how far they can advance and their approaches.

- General mathematics attainment, that includes progression will ascertain the individual's current level of attainment in Mathematics and their potential ceiling.

- Mathematic Reasoning and Problem Solving, including word problems will explore whether the difficulties are related to number, or Mathematical terminology, or language more generally. where the test would commonly include mental mathematics skills, mathematical reasoning and solving problems, including word problems

Basic calculation (timed) (may include: +, -, x, ÷)

Feifer Assessment of Math (FAM)	4:00 – 21:11	• Addition fluency • Subtraction fluency
See FAQ 7 re Qualification Levels	8:00 – 21:11	• Multiplication fluency • Division fluency
	4:00 – 21:11	• Addition knowledge • Subtraction knowledge
US Norms	8:00 – 21:11	• Multiplication knowledge • Division knowledge
Kaufman Test of Educational Achievement: Third Edition (KTEA-3)	4:00 – 25:11	Maths Fluency
Test of Basic Arithmetic & Numeracy Skills (TOBANS)	7:05-11:05	• Addition • Addition with carry • Subtraction • Subtraction with carry • Multiplication
Wechsler Individual Achievement Test: Third Edition UK (WIAT-III UK)	6:00 – 25:11 (UK Norms) US norms up to 50:11	• Maths Fluency -Addition • Maths Fluency -Subtraction
See FAQ 7 re Qualification Levels UK Norms	8:00 – 25:11 (UK Norms) US norms up to 50:11	• Maths Fluency - Multiplication
Woodcock-Johnson IV Tests of Achievement: UK & Ireland Edition (WJ IV ACH)	2:00 – 90:11	Math Fluency

Graded Computation (==written,== ==untimed==)

Academic Achievement Battery (AAB)	Calculation
==Basic Number Screening Test: Fifth Edition==	
Kaufman Test of Educational Achievement: Third Edition (KTEA-3)	Computation
Key Maths 3 UK	• Addition & Subtraction • Multiplication & Division
Wechsler Individual Achievement Test: Third Edition UK (WIAT-III[UK])	Numeracy
Woodcock-Johnson IV Tests of Achievement: UK & Ireland Edition (WJ IV ACH)	Computation
Wide Range Achievement Test: Fifth Edition (WRAT5)	Computation

Mathematical reasoning and problem-solving

Academic Achievement Battery (AAB)	Reasoning
Feifer Assessment of Math (FAM)	Equation Building sub-test
Intelligence and Development Scales Second Edition (IDS-2)	Logical mathematical reasoning
Kaufman Test of Educational Achievement: Third Edition (KTEA-3)	Concepts & applications
Key Maths 3 UK	Basic concepts • Foundations of problem-solving • Applied problem-solving
Wechsler Individual Achievement Test: Third Edition UK (WIAT-III^{UK})	Maths Problem solving
Woodcock-Johnson IV Tests of Achievement: UK & Ireland Edition (WJ IV ACH)	Applied problems

Other sub-tests that could be considered for additional information

Key Maths 3 UK See FAQ 7 re Qualification Levels UK Norms	• Algebra • Geometry • Measurement • Data Handling	When combined with numeracy sub-test can be used to derive a composite score for Basic concepts. Includes some problem-solving and reasoning questions. Test is no longer available to purchase but record forms and manual are still available. Easel is not available.
Key Maths 3 UK See FAQ 7 re Qualification Levels UK Norms	Mental Arithmetic	Combines with written ==Addition & Subtraction and Multiplication & Division== papers to provide an operations composite score. Test is no longer available to purchase but record forms and manual are still available. Easel is not available.

COGNITIVE PRESENTATION: Speed of Processing and Retrieval

Speeded tests of processing and retrieval can be used to gain information about the individual's ability to perform relatively simple, repetitive cognitive tasks quickly and accurately. Processing speed can impact on reading, spelling or numerical fluency.

Areas of assessment:

- Rapid Automised or symbolic naming

- Coding, symbol search and cancellation tasks

- Retrieval fluency

- Orthographic Processing

- Visual-motor speed

This section will include:

- Measures of rapid automatised (or symbolic) naming (RAN), i.e. the ability to retrieve accurately well-known phonological responses (e.g. names of letters, numbers, objects, colours) fluently from long-term memory in response to a visual stimulus. RAN tasks are a measure of processing speed (the ability to perform relatively simple repetitive cognitive tasks, quickly, accurately and fluently).

- Assessors can choose whether to include this in a Mathematics assessment.

Rapid Automatised Naming

Comprehensive Test of Phonological Processing: Second Edition (CTOPP-2)	Rapid Non-Symbolic Naming composite (ages 4:00-6:11 only) is made up of: • Rapid Colour Naming • Rapid Object Naming Rapid Symbolic Naming composite (ages 7:00-24:11) is made up of: • Rapid Digit Naming • Rapid Letter Naming
Feifer Assessment of Reading (FAR)	RAN: Objects and Letters (4:00 – 7:11) RAN: Objects and Stencils (8:00 – 21:11)
Kaufman Test of Educational Achievement 3rd Edition (KTEA-3)	• Object Naming Facility • Letter Naming Facility
Phonological Awareness Battery, second edition (PhAB2)	• Picture Naming • Digit Naming
Rapid Automatized Naming and Rapid Alternating Stimulus Test (RAN/RAS)	• Objects • Colours • Numbers • Letters • 2 Set (Letters and Numbers) • 3 Set (Letters, Number, Colours)
Reynolds Intellectual Assessment Scales, Second Edition (RIAS-2)	Speeded Naming Task • 2 tasks (dogs and cats, trees and cars) (3:00 – 5:11) • 2 tasks (common objects, geometric shapes) (6:00 – 94:11)
Tests of Dyslexia (TOD) US Norms	TOD-C: Rapid Automatised Naming composite is made up of: • Rapid Letter Naming, • Rapid Number and Letter Naming TOD-E: Early Rapid Number and Letter Naming
Woodcock- Johnson Tests of Oral Language (WJIV OL)	Rapid Picture Naming
Woodcock Reading Mastery Tests: Third Edition (WRMT-III)	Rapid Automatic Naming

This section could also include:

- Coding, symbol search and cancellation tasks, i.e. the ability to accurately and fluently scan and identify or copy symbolic content from a stimulus.

- Retrieval fluency tasks, semantic or phonological, i.e. the ability to retrieve, quickly and fluently, vocabulary, knowledge or categories of words in response to a stimulus.

- Tests of orthographic processing

- Visual-motor speed tasks, i.e. the ability to correctly search and /or reach for or mark a visual stimulus.

Coding, Symbol Search and Cancellation tasks

Intelligence and Development Scales Second Edition (IDS-2)	Processing Speed factor is made up of: • Parrots • Boxes
Reynolds Intellectual Assessment Scales, Second Edition (RIAS-2)	Speeded Picture Search: • 2 tasks (Sad Face, Happy Face) (3:00 – 5:11) • 2 tasks (House, Abstract Design) (6:00 – 94:11)
Wechsler Adult Intelligence Scale: Fourth Edition UK (WAIS-IV^{UK})	Processing Speed is made up of: • Symbol Search (Visual perceptual and discrimination Processing) • Coding (includes visuo and fine motor coordination) • Optional: Cancellation - visual perceptual scanning skills)
Wechsler Intelligence Scale for Children: Fifth UK Edition (WISC-V^{UK})	Processing Speed is made up of: • Symbol Search (Visual perceptual and discrimination Processing) • Coding (includes visuo and fine motor coordination) • Optional: Cancellation - visual perceptual scanning skills)
Woodcock-Johnson IV Tests of Cognitive Abilities (WJ IV COG)	Cognitive Processing Speed Cluster is made up of: • Letter-Pattern Matching • Pair Cancellation.

Retrieval Fluency

Feifer Assessment of Reading (FAR)	Verbal Fluency 2 timed trials
Intelligence and Development Scales Second Edition (IDS-2)	Listing Words
Kaufman Test of Educational Achievement 3rd Edition (KTEA3)	Associational Fluency (Words belonging to a given semantic category)
Test of Information Processing Skills (TIPS)	Semantic Fluency • word lists are generated orally within one-minute spans, • word lists are written within one-minute spans.
Woodcock Johnson Tests of Oral Language (WJIV OL)	Retrieval Fluency

[Lv1]In the manual this is described as 'a timed measure of word retrieval skills that combine speed of retrieval with memory) p71

Additional tests that could be used to further investigate orthographic skills

Test of Orthographical Competence 2nd Edition (TOC-2)	Punctuation, Abbreviations, Sight Spelling, Homophone Spelling, Word Scramble, Letter Choice.
Tests of Dyslexia (TOD)	Orthographic Processing Composite is made up of: • Letter and Word • Word Pattern Choice
Woodcock-Johnson IV Tests of Cognitive Abilities (WJ IV COG)	Letter Pattern Matching

Visual-Motor Speed

Beery-Buktenica Developmental Test of Visual-Motor Integration: Sixth Edition (Beery VMI)	Motor Coordination
Detailed Assessment of Speed of Handwriting (DASH) or Detailed Assessment of Speed of Handwriting (DASH 17+)	Graphic Speed
Detailed Assessment of Speed of Handwriting, Second Edition (DASH-2)	Graphic Speed
Developmental Test of Visual Perception Adolescent and Adult (DTVP-A:2)	Visual-motor speed
Intelligence and Development Scales Second Edition (IDS-2)	Visual Motor Skills Tasks (Task 1 Drawing between lines Task 2: Copying Images, Task 3: Completing Mirror Images).

Cognitive Performance and Presentation: Memory and Attention

Areas of assessment:

- Verbal working memory
- Phonological short-term memory
- Inhibitory control
- Shifting attention

Rationale:

- Problems in verbal working memory, phonological short-term memory, attention and planning can be present in individuals with specific and developmental difficulties. All of these cognitive skills are important in mathematics, reading, and writing composition, at word, sentence and text level.

- Verbal working memory is of particular importance in multi-step calculation processes where interim information and solutions must be held in mind.

- Attentional skills usually correlate with mathematics performance and inhibitory control/information filtering/shifting is important to mathematics development.

This section will include:

- Measures of ==verbal working memory==: the ability to maintain and manipulate/transform verbal information in working memory to complete tasks e.g. digits backwards, letters backwards, digits sequencing tasks, or digits or letters forward combined with digits or letters backwards.

- And (where concerns are literacy based), measures of phonological short-term memory: the ability to identify accurately, retain briefly, and repeat sequences of speech sound e.g. digits forward, letters forward, non-word repetition tasks.

Verbal Working Memory

Test	Subtests that could be used to examine this area:
British Ability Scales: Third Edition (BAS3)	Recall of digits forwards Recall of digits backwards
Feifer Assessment of Reading (FAR)	Word recall
Intelligence and Development Scales Second Edition (IDS-2)	Auditory short-term memory factor is made up of: • Digit and letter span • Mixed digit and letter span
Reynolds Intellectual Assessment Scales, Second Edition (RIAS-2)	Verbal Memory
TAPS-4: A Language Processing Skills Assessment	Auditory Memory Index is made up of: • Number Memory Forward • Word Memory • Sentence Memory • Number Memory Reversed (Supplemental)
Tests of Dyslexia (TOD)	Auditory Working Memory Composite is made up of: • Word Memory • Letter memory
Test of Information Processing Skills (TIPS)	Visual and Auditory Modality Delayed Recall Semantic Fluency
Test of Memory and Learning Second Edition (TOMAL-2)	• Digits forwards • Letter forwards • Digits backwards • Letters backwards There is an additional subtest of: • Memory for Stories

Verbal Working Memory

Wechsler Adult Intelligence Scale: Fourth Edition (WAIS-IV UK)	Working Memory Index is made up of: • Digit Span • Arithmetic • Letter-Number Sequencing
Wechsler Intelligence Scale for Children: Fifth UK Edition (WISC-VUK)	Working Memory Composite is made up of: • Digit Span • Picture Span • Letter-Number Sequencing
Wechsler Memory Scale: Fourth UK Edition (WMS-IV UK)	7 subtests, 6 of which are used to derive 5 Indices (Auditory Memory, Visual Memory, Visual Working Memory, Immediate Memory & Delayed Memory).
Wide Range Assessment of Memory and Learning Third Edition (WRAML-3)	Verbal Working Memory subtest
Woodcock-Johnson IV Tests of Cognitive Abilities (WJ IV COG)	Short-term Working Memory Cluster made up of: • Numbers Reversed • Verbal Attention • (an additional task of Object Number Sequencing) There is an additional subtest of: • Story Recall

Phonological short-term memory

Comprehensive Test of Phonological Processing 2 (CTOPP-2)	Phonological Memory composite is made up of: • Memory for digits • Nonword repetition
Phonological Awareness Battery, second edition (PhAB2)	Phonological Working Memory (Nonword repetition)
Woodcock-Johnson IV Tests of Cognitive Abilities (WJ IV COG)	Nonword Repetition Memory for Words

This section could also include:

- Measures of visual working memory.

- Observational or standardised measures of attention, i.e. shifting (the ability to switch attention between mental sets, tasks or strategies) and inhibitory control/inhibition (the ability to inhibit a dominant response or resist interference).

- Qualitative observations of the ability to filter information effectively to make decisions and solve problems.

Area Assessed	Test	Subtests that could be used to examine this area:
Visual working memory	British Ability Scales: Third Edition (BAS3	Recall of objects
Visual working memory	Cognitive Assessment System-Second Edition (CAS-2)	Figure Memory
Visual working memory	Feifer Assessment of Mathematics (FAM)	Visual-spatial memory
Visual working memory	Woodcock-Johnson IV Tests of Cognitive Abilities (WJ IV COG)	Picture recognition
Visual spatial short-term memory	Intelligence and Development Scales Second Edition (IDS-2)	Shape memory Rotated shape memory
Visual short-term memory	Reynolds Intellectual Assessment Scales, Second Edition (RIAS-2)	Non-verbal memory
Visual Memory/ Sequential Memory	Test of Memory and Learning: Second Edition (TOMAL-2)	Manual imitation (a visual sequential processing task with a motor element) Abstract visual memory (Visual Working Memory) Visual sequential memory (Visual Sequential Memory)
Visual Memory/ Sequential Memory	Wechsler Intelligence Scale for Children: Fifth UK Edition (WISC-V UK)	Block design Visual Puzzles
Visualisation	Woodcock-Johnson IV Tests of Cognitive Abilities (WJ IV COG)	Spatial relations Block rotation

Attention, shifting and inhibitory control/inhibition

British Ability Scales: Third Edition (BAS3)	Pattern construction Recognition of pictures
Cognitive Assessment System- Second Edition (CAS2)	Attention Scale is made up of: • Expressive Attention • Number Detection • Receptive Attention (A minimum of 2 subtests must be administered for an Attention Scale score.
Developmental Test of Visual Perception–Adolescent and Adult, Second Edition (DVT2A:A)	Visual motor search
Intelligence and Development Scales Second Edition (IDS-2)	Divided attention Animal colours Drawing routes
Woodcock-Johnson IV Tests of Cognitive Abilities (WJ IV COG)	Letter pattern matching Number pattern matching Pair cancellation
Woodcock-Johnson IV Tests of Cognitive Abilities (WJ IV COG)	Pair cancellation

Numerical Cognition

Tests in this section would be included ONLY in an assessment focusing primarily on Mathematics difficulties.

Areas of assessment:

- Magnitude comparison
- Magnitude estimation
- Counting
- Sequencing/ordering numbers
- Mastery of Mathematics Language

Performance on symbolic magnitude processing tests is strongly associated with Mathematics achievement.

Difficulties with specific Mathematics language can impact on Mathematics attainment.

COGNITIVE PRESENTATION: VISUAL-SPATIAL PROCESSING

What the report format tells us:

The processing of visual-spatial information enables us to make sense of what we see and to interact efficiently and appropriately with the world around us. It is crucial to our performance of everyday tasks in academic and workplace environments.

The ability to store accurate spatial representations in memory and to marshal these when solving problems is important in the development of **mathematical understanding and problem-solving**. **Mental rotation and visual working memory** are particularly important in mathematics.

Spatial skills impact across all areas of mathematics, not just shape and space; for example, they are involved in spatial representations of numbers and concepts, aligning procedures and mental visualisation. **Difficulties in visual-spatial processing skills can impact on reading and writing**

In this section:

Visual-spatial processing could be explored through tests of:

· Spatial processing: The ability to hold spatial relations in memory and use the information to carry out tasks effectively.

· Visual working memory i.e. the ability to temporarily maintain relational visual information that is relevant for a current or imminent task.

· Mental imagery/visualisations (qualitative analysis and informal observations only)

· Mental rotation skills

- If assessors feel it is more appropriate, measures of visual reasoning/pattern or design recognition/construction which may assess grouping and ordering skills, pattern recognition, abstract reasoning skill, logic, problem solving and deduction could be reported in this section, rather than in the Language and Reasoning section(further details of tests are included there). This may be more appropriate in a maths-focused assessment

Where age-appropriate tests are available, this section will include:

Measures of symbolic magnitude comparison, i.e. comparing the value of numbers expressed as digits.

Appropriate to age, this section could also include standardised measures of:

- Magnitude estimation

- Counting

- Sequencing/ordering numbers

- Non-symbolic magnitude comparison

- Standardised measures and/or qualitative observations and analysis of mastery of Mathematics language.