Assessment Report

Name: J

School:

Date of Birth: 10.10.97

Age at Assessment: 14 years 7 months

Specialist Assessor: Alex Tait

Assessment Date: 10th May 2012

This report is drawn from information provided by questionnaires, consultation, observations of behaviour and the data gathered from the assessment itself. It represents a professional opinion based on this information.

Background Information

Before the assessment two questionnaires were sent out: one to the learner's family and the second to the learner's school. Currently, the first has yet to come back. The information that has been given, alongside informal notes from the SENCO, was used to create the following profile of the learner and in the selection of the assessment material.

Reasons for referral

Currently, J is performing at a below average level in his writing and his speaking and listening. History, Geography and PE are also mentioned as areas of significant under achievement. He requires a lot of prompting before he can start a task independently and once he does he is slow to process information and tends to get easily distracted. A formal assessment would shed light on the underlying reasons for these difficulties. It would also provide indicators for where an application for future access arrangements could be made.

Risk factors

Family and dyslexia history
At this point, it is not known if there is a family history of dyslexia. The hereditary factors of dyslexia have attracted a lot of research, but there seems to be a general consensus that 'roughly 40-50% of the first degree relatives (siblings and parents) of an individual with dyslexia are likely to have or have had reading problems.' (Smith, Gilger & Pennington, 2002: Scarborough, 1989; Gilger, Pennington, DeFries, 1991, cited in Gilger, 2003, p7)

Speech and language
J is cited by the school as performing below average in his speaking and listening attainment. These difficulties may stem from problems with expressive language ('a process of formulating ideas into words and sentences, in accordance with the set of grammatical and semantic rules of language' Cantwell and Baker, 1987) or receptive language (the understanding of language) or both. Both of these will have an impact on literacy skills.

Left/right handed
J is left handed, as is his older sister. This is worth noting in the light of research which involved a 'study on a large group of strongly left-handed people (that) confirmed that this population has a much higher rate of learning disabilities than a control population of strongly right-handed individuals' (Geschwind and Behan cited by Ott p32, 1997).

Indicators

Motor skills
The fact that J is performing at a below average level in both his writing and his PE suggests that there may be possible issues on both a fine and gross motor skill level. A comorbidity between specific learning difficulties is not uncommon (Visser, 2003). Research suggests that about 50% of learners with dyslexia also display indications of dyspraxia (Deponio, P 2004).

Behaviour
J is described the school as being 'a lovely lad' but his attention can drift from the task in hand. This, together with the fact that he needs instructions given to him more than once, is slow to start tasks and is easily distracted all affect the speed of his work and the output.

Uta Frith (2002) has pointed to a possible connection between problems in the attention system and problems with spoken and written language. If executive functions are affected, this is linked with difficulties in planning, organizing, sequencing and concentration, all skills which are crucial for competent reading, writing and numeracy.

Barriers

It is not currently known if there are any concerns about J's eyesight or hearing, either of which could act as a barrier to learning.

Educational history

In his SATs J reached a level 3 in his English and Maths. The expected level of attainment is level 4 by the end of KS2, which he achieved in his Science. Encouragingly, he is reported as performing at an average level in Reading, Comprehension and Spelling at this moment in time.

Difficulties in speaking and listening and concentration, combined with potential problems with memory, will make it harder for J to retain and recall verbal information. It will also make it difficult to retain and learn new vocabulary. This will affect all subject areas, but particularly those that may be more language orientated (and less practical) such as Geography and History.

Provision of additional support in school

J is being monitored for Special Educational Needs by his school and is currently on the School Action stage. A conversation with J's Learning Support Teacher highlighted the nature of the in class support he is currently given. The main purpose of this is to make sure that he understands instructions and to refocus him if he seems off task. The issues with organisation have improved over his time at school,

though they still remain a problem. He recently completed a special handwriting course ('Speed Up') which saw his writing speed improve. Though he can often get easily distracted, J is never disruptive in class and he has matured considerably since year 7.

Learner's Views

In the school questionnaire, it was noted that J has expressed his own concerns with his concentration and processing. He enjoys most lessons in school, particularly the practical side of DT and English, where he feels he has a natural interest (although he does not read very much). The only subject he did not enjoy is Spanish.

Test Behaviour

J instantly presented as an interesting and polite student. He understood the purpose and rationale of the assessment and displayed excellent attention and concentration throughout the whole session. He was good-natured and calm, even when he found some activities difficult, and never gave up on any tasks.
He understood the instructions for the tasks without them needing to be explained again. Occasionally he seemed quite impulsive to start before the instructions had been fully given. He was able to reflect on his performance in the different tasks using a traffic light system (green = comfortable, red = uncomfortable, orange = satisfactory) where he annotated the assessment timetable. The vast majority of tasks were given an orange, some a green, none red. He used some strategies for different activities and was able to comment on these.

Assessment Procedure

The assessment was carried out in a quiet room in the Learning Support Unit at Weydon School. The session was broken into three separate chunks of approximately 50 minutes each. It is felt that the results of the assessment are a good indication of J's current abilities.

Summary of standardised test results

Name: J   Chronological Age: 14 years 7 months
Date of Birth: 10.10.97   Date of Assessment: 10.5.12

Standardised Score		Standard Score	Percentile Rank	< 69 Well below average	70 84 Below average	85 100 115 Average Range	116 130 Above average	>130 Well above average	Confidence Interval
Underlying Ability									
WRIT	Verbal Analogies*	99	47th			☆			
	Vocabulary	90	25th			☆			
	Verbal Ability	94	34th			☆			88-101
	Matrices	80	9th		☆				
	Diamonds	85	16th			☆			
	Visual Ability	79	8th		☆				73-88
Cognitive Processing									
DMT	Auditory working memory	96	39th			☆			
PhAB	Naming speed (pictures)	82	12th		☆				
	Naming speed (digits)	91-94	28th – 34th			☆			
	Fluency - semantic	88	22nd			☆			
	Fluency -rhyme	92	30th			☆			
	Fluency - alliteration	82	12th		☆				
	Spoonerism	87	20th			☆			
SDMT	Visuo-Motor Processing	75	5th		☆				
Attainment									
DRA (Form B)	Reading Accuracy	126	95th				☆		
	Reading Fluency*	Average				☆			
	Reading Comprehension	Below average			☆				
	Comprehension Processing Speed	Average				☆			
TOWRE (Form A)	Sight Word Efficiency	94	35th			☆			84-104
	Phonemic Decoding Efficiency	96	39th			☆			90-102
	Total Word Efficiency	94	35th			☆			88-100
WRAT 4 – Green Form	Single Word Reading	108	70th			☆			99-116
	Single Word Spelling	102	55th			☆			93-111
DASH	Handwriting Speed	82	13th		☆				72-92
	Copy Best	105	63rd			☆			95-115
	Copy Fast	85	16th			☆			75-95
	Alphabet	75	5th		☆				65-85
	Free writing	75	5th		☆				65-85

*See footnotes at the end of the diagnostic report

Interpreting the scores:

Standardised Scores (SS) – This allows a comparison of a learner's scores with the average scores that would be obtained by learners of the same age, and those of other tests scored this way. In other words, it shows where the learner's score sits compared to peers' scores. The average is 100 (and this is the 50th percentile). The average range contains 68% of the population and usually the average range is between SS85 and SS115. Learners scoring higher than this average band will be 'above average' and 'below average'. 16% of the population fall into each of these bands.

Percentile Rank – This score ranges from 0 – 100 and shows a learner's position in relation to his/her peer group. The 50th percentile is the central score (equivalent to SS100). The average percentile range is between 16 and 84.

Test Information

DRA	Diagnostic Reading Analysis, 2nd Edition (DRA2): Crumpler and McCarty: Hodder & Stoughton (2008)
TOWRE	Test of Word Reading Efficiency: Torgensen, Wagner and Rashotte: Pro-Ed (1999)
DMT	Digit Memory Test: Turner and Ridsdale: Dyslexia Action (2004)
PhAB	Phonological Assessment Battery: Frederickson, Frith and Reason: GL Assessment (1997)
WRIT	Wide Range Intelligence Test : Glutting, Adams and Sheslow: Wide Range Inc. (2000)
WRAT 4	Wide Range Achievement Test, 4th Edn: Psychological Assessment Resources Inc (2006)
SDMT	Symbol Digit Modalities Test: Western Psychological Services (1973)
DASH	Detailed Assessment of Speed of Handwriting: Pearson (2007)

Summary of further test results

Test Name	Subtest	Comments
PEERAMID 2 Pediatric Examination of Educational Readiness at Middle Childhood 2: Levine. Educational Publishing Service, Inc: Cambridge and Toronto. (1996)	Rapid Verbal Recall	Good
	Drawing from Memory	Average
	Visual Vigilance	Accurate but slow
One minute number test: Westwood, Harris-Hughes, Nolan and Scrymgeour. Remedial Education (Criterion referenced) (1974)	One minute addition test	Weak
	One minute subtraction test	Very Weak
Common sequences	Days of week, months of year	Good

General Ability

*The **Wide Range Intelligence Test ('WRIT')** has four subtests of cognitive ability that assess verbal and non-verbal abilities relevant in school. The **Verbal scale** is made up of the **Vocabulary** and **Verbal Analogies** subtests, whilst the **Visual (non-verbal) scale** consists of the **Matrices** and **Diamonds** subtests.*

Verbal Ability

- *The **Verbal Analogies** subtest requires the learner to provide a word verbally to complete an analogy: "The sky is to blue as snow is to….".*
- *Success on this requires good verbal reasoning and receptive language ability.*

J achieved a solid average score in this test (SS 99, 47th percentile). His responses here were fairly automatic. He did not require any repetition of the analogy. Two of the responses were mirroring the first word, which may have been a working memory issue. Two errors were appropriate substitutions (if still incorrect) suggesting that J is able to think about the semantics of the analogy. Overall it suggests that J is able to use the context of a sentence effectively to generate an answer, ie use the clues provided by the sentence to come up with the right word.

- *The **Vocabulary** subtest requires the learner to define a word verbally, which has been presented orally.*
- *Performance is affected by expressive language ability, word knowledge and familiarity with specific vocabulary as well as auditory processing.*

J achieved a low average score in this subtest (SS90, 25th percentile). J gave quite full responses to the majority of the questions and displayed a good use of expressive vocabulary in the process. Despite this the ceiling of errors was reached quite early on. Two of the errors suggested were to do with substituting a word that sounded similar. For three of the errors no answer was given. A weaker score on this test compared with the Verbal Analogies suggests that without context to help J may have some difficulties with the meaning of some words.

Combining these two scores gives an indication of the **verbal** measure of intelligence – also known as crystallised ability. Here his score was within the average band (SS94, 34th percentile). This measure is dependent on the knowledge, skills and vocabulary built up over a lifetime. It can be strongly affected by long term verbal memory and expressive/receptive language. Overall this is an encouraging strength for J.

Non-Verbal Ability

- *The **Matrices** subtest requires the learner to select a picture from a series in order to complete an initial incomplete picture stimulus.*

- *This test assesses non-verbal reasoning, visual observation and pattern recognition.*

J's score here was below average (SS80, 9th percentile). After an initial measured start, much of J's responses reflected a certain impulsivity. This may have been caused by the fact that it was a timed exercise, but J explained that he tended to see the answer straight away – there was no obvious process of deduction taking place, backed up by the lack of subvocalisation or use of a finger to figure out the relationship. Essentially what this meant was that there was an absence of reasoning in the errors made; the responses chosen were not without a degree of logic, but the lack of attention to detail meant they were the wrong ones. There was also evidence of some difficulties with spatial ability (specifically problems with orientation).

- *The **Diamonds** subtest requires the construction of 2d and 3d patterns using diamond shaped pieces.*
- *It necessitates good spatial ability, visual perception (interpreting and analysing what is seen) and combining the visual with fine motor skills.*

J's score in this test was in the average band (SS85, 16th percentile) but at its lowest point. He did not find this task easy and showed some difficulties manipulating the diamond pieces accurately. Getting the correct orientation of the construction was an initial issue and several of his answers fell only just inside the time limit. Despite finding these tasks difficult, he persisted and was not afraid of starting all over again if he reached an impasse. This is where a distinction can be drawn between his performance here and in the Matrices test – far less impulsive. Once again, however. there was no obvious attempt to subvocalise or point at the picture to help work things out.

These two scores give an indication of **visual** intelligence – or 'fluid ability'. This is the ability to solve new problems and understand the relationships of various concepts and is thought to be independent of acquired knowledge. A combined score of the Matrices and Diamonds tests gave J a below average score for **non-verbal ability** (SS 79, 8th percentile). A weakness in this kind of non-verbal reasoning is significant because this is the kind of thinking that enables learners to analyse and solve complex problems without relying on, or being limited by, language abilities. Many mathematical concepts, science problems, interpretation of diagrams and graphs require exactly this. It also enables much of our everyday small scale 'mental leaps' – transferring concepts across topics, finding solutions, problem solving.

Summary of relative strengths and weaknesses in underlying ability

Strengths	Weaknesses
Relatively good verbal reasoning	Weak non-verbal reasoning skills
Relatively good expressive language abilities	Weak visual perception
Perseverance with problem solving in practical tasks	Poor use of strategies to help in deduction
	Impulsiveness for solving visual tasks

Underlying cognitive skills

Memory

Digit Memory Test
- *The **Digit Memory Test** assesses the ability to remember and repeat sequences accurately, and the ability to hold and manipulate sounds in working memory.*
- *A series of numbers is presented orally in a monotone voice one second apart.*
- *The learner has to listen and repeat these digits forwards and then, in the second part of the tests, backwards.*

J's score in this test puts him firmly in the average band (SS 96, 39th percentile). He used a strategy of counting on his fingers to remember the initial and final number in the sequence and this seemed to work well for him.

Working memory has been described as 'the mental workspace where material can be processed and maintained'. When working memory is weak it is very difficult to hold onto information that has been verbally presented (eg a list of instructions). 'Zoning out' happens because often the crucial information needed to guide an activity has been forgotten, and once information is lost from working memory it is gone for good. This was something that was noted in the observation material from J's Learning Support Teacher. The score obtained in this test was encouraging because it suggests that J has the 'capacity' to hold onto and process information. A classroom situation, though, can often present more distractions and this may have an impact on working memory.

Visual Memory (PEERAMID 2)
- ***Drawing from Memory** is a visual retrieval task where the learner looks at a design or pattern and then completes a similar one that has parts missing.*
- *It requires good short term memory and attention skills.*

J scored in the expected band for his age group. There were minor issues with orientation but attention and focus were good. Visual recall is relevant for spelling, writing and certain aspects of mathematics.

Common sequences

J had no difficulties recalling the days of the week or months of the year both forwards and backwards.

Summary of memory strengths

Strengths	Weaknesses
Average short term auditory memory	Background information suggesting

and working memory when tested on DMT Average short term visual retrieval memory Good sequential memory	possible weakness in working memory in a classroom setting

Phonological and processing skills

*The **Phonological Assessment Battery (PhAB)** contains a range of tasks to assess phonological skills and processing abilities. In other words, the skills linked to the sound patterns we hear in speech and language and how efficiently they can be carried out. These skills are seen as very important for reading and spelling.*

PhAB Naming Speed tests
- *These determine the speed of phonological processing and word retrieval, i.e how quickly and efficiently can someone access known words from their 'phonological filing system'*
- *The learner looks at a series of pictures or digits and names them as fast as possible while being timed.*

J achieved an average score for Naming Speed of digits (SS 91-94, 28th – 34th percentile) but a below average score for Naming Speed of pictures (SS 82, 12th percentile). The discrepancy in this case suggests that whilst J should be able to recall letter/sound links fairly efficiently, accessing whole words from long term memory is more difficult for J. This could impact on his ability to recognise and pronounce vocabulary quickly and accurately while reading.

PhAB Fluency test
- *This assesses the ability to retrieve words (and phonological information) from long term memory at speed.*
- *The learner is asked to say as many words as possible fitting in to a particular category (semantic) / starting with a particular letter (alliteration) / rhyming with a one syllable word in 30 seconds (rhyme).*

J's scores on the semantic and rhyme tests were in the low average band, this despite grouping items in a very logical way (SS 88 22nd percentile, SS92 30th percentile respectively). His score in the alliteration subtest put him below average (SS 82, 12th percentile) and on one of the tests he said that he 'lost what I'm doing' – this may have been an issue with working memory or simply attention. The results suggest that there may be a weakness at retrieving words (from a range of stimuli) at speed, and that the 'phonological organisation' of his word bank – almost like a filing system – is not very efficient.

PhAB Spoonerisms test
- *This assesses the ability to segment and manipulate sounds and then synthesise the segments to make new words.*

- *In part 1 the learner is asked to replace the first sound of a word with a new sound.*
- *In part 2 the learner is asked to exchange the initial sounds of two words.*

J's low average score in the Spoonerisms test (SS87, 20th percentile) could have been a reflection of difficulties manipulating onset and rime in words. As important, though, may have been a weakness in working memory – particularly important when it came to the second part of the test where all of J's errors occurred. There were no attempts at sub vocalisation and in conversation afterwards he discussed how his technique was trying to see what he could hear (rather than repeating the words in his head to play about with the sounds).

Summary of strengths and weaknesses of phonological skills

Strengths	Weaknesses
Relatively good phonological manipulation with single words (ie with less pressure on working memory)	Poor phonological manipulation when working memory is involved
Average rapid naming of symbols (supporting fluency of blending and segmenting)	Weak rapid naming of whole words (may have an effect on word recognition/reading fluency)
Use of categorisation to group words	Poor use of strategies to help with phonological skills

Language Skills

Rapid Verbal Recall (PEERAMID 2)
- *This requires the assessor to read a list of short, simple questions that require the learner to name something they already know. The learner has to answer as quickly as possible.*
- *The activity measures the speed of language processing and production.*

J's score put him firmly in the expected band for his age. There was no hesitation with word retrieval when fed the stimuli verbally. This mirrors the strengths shown in the Verbal Ability section of the WRIT – J uses context well to generate the right word and this would appear to speed up his word retrieval (as compared with the PhAB tests).

Summary of language skills strengths and weaknesses

Strengths
Good word retrieval following verbal stimuli

Visual Functions

Symbol Digits Modalities Test
- *In the **Symbol Digits Modalities Test**, the learner is asked to assign numbers to specific symbols, using a key provided at the top of the page.*
- *It measures speed of visual-motor processing, visual tracking/copying, visual processing and attention to detail.*
- *The manipulation of written symbols at speed has a direct relationship to writing.*

J's score was in the below average band by some margin (SS 75). He worked very methodically but very slowly, and the score highlights a clear issue with visuo-motor processing specifically, and processing speed in general. The need to constantly refer to the key for most of the decoding is also a possible indicator of working memory issues.

The impact of a weakness on visuo-motor processing will be most felt in handwriting and performance in activities where he is required to multi-task, for example taking notes from a text or copying from the board in class.

Visual Vigilance (PEERAMID 2)
- *The learner is presented with visual stimuli that they then need to match.*
- *It gives an insight into attention, visual discrimination and scanning strategies.*

J's score here was lower than the range expected for his age group. Interestingly there were more omissions of stimuli (false negatives, ie missing out on an answer) suggesting inattention rather than errors of commission (false positives ie circling the wrong answer) which often suggest an impulsive approach to the task.
He was slightly faster processing information with letters (his speed here was within the expected age band but at the lowest end) rather than symbols (where his time fell outside the expected band) . J did use a strategy to try and be more systematic about his scanning but it proved ineffective and this can suggest more generalised problems with planning and organisation.

Summary of visual strengths and weaknesses

Strengths	Weaknesses
Methodical approach	Poor visuo-motor skills
Some attempt to find a strategy	Poor attention to detail

Attainments

Reading

Prose Reading

- *In the **Diagnostic Reading Analysis (DRA)** the learner first listens to a passage read by the assessor and answers questions. He or she then reads three of more passages and answers questions, until a ceiling of errors is reached.*
- *This test can be used to obtain a score for reading accuracy, fluency, comprehension and comprehension processing speed.*

J's score for reading accuracy places him in the above average band (SS126, 95th percentile). He makes very good use of context to work out unfamiliar words and was quick to recognise substitutions that did not make sense and correct these accordingly. This reflected his performance on the Verbal Analogies subtest where he showed that he could use context well to generate the right word. Allied to this are his good word attack skills. Words such as *'impenetrable', 'cumbersome'* and *'possess'* were all sounded out syllabically. On some occasions this led to the correct decoding but a stress error – eg with *'consecutive'*- and this may also have affected the understanding of the word despite the successful breaking down. Overall, though, what these skills give J are the tools to read with considerable accuracy.

He read at a consistent speed (sometimes using a finger to keep his place) and the fluency rate reflects this, falling squarely in the average range. What the rate does not show though is that there were several occasions where he repeated a phrase having initially omitted a word or made an incorrect substitution. In most cases he corrected the error, but it meant that the flow of the text (and possibly the meaning) may have been affected.

The significance of this is important when looking at his score for comprehension. This was in marked contrast to his score for reading accuracy, falling into the below average band. In other words, while his decoding is a relative strength, he finds it difficult to understand and use the information read. His listening comprehension was comparatively good, suggesting that there are no obvious issues with receptive language. What was interesting, though, was that the one question he got wrong here was a 'predictive' question – i.e a question that requires the student to make a reasonable suggestion in the light of the information they have read. The importance of these questions is that they act as a very good check to see if the overall sense and meaning of the story of the passage has been comprehended. This was a pattern that was to repeat itself over a number of the passages that he read for himself – more errors were made on these types of questions than on any other. On only one passage out of the five read did it appear that J had grasped the meaning of the text clearly and here he scored 100% in his comprehension questions. So whilst J is able to make sense of sentence context, a failure to grasp a clear sense of overall context critically undermines his comprehension.

To understand what is going wrong, it may help to create a simple model for the reading process so that the points of breakdown can be identified. Reading requires a complex combination of processes: starting with visual perception, then maintaining attention, holding onto letters/words in the memory, connecting these to speech sounds (phonology), linking these to meaning, before finally turning this into the motor process of saying the word (or silently reading). Add in comprehension and there are additional issues; a text needs to be understood and remembered if questions can be answered about it.

J brings many strengths to this process (specifically connecting letters to speech sounds) and using his vocabulary, grammar and knowledge of syntax to look for meaning, but *processing* this information at speed would appear to be a difficulty. The low score on the PhAB Naming Speed suggests that accessing whole words is slower than average. As mentioned, J achieved an average fluency score despite rereading several passages, especially after he self corrected. These self corrections do not feed into the accuracy score and they may well have disrupted the overall understanding. His word attack skills are a great strength but occasionally it can mean that words are decoded successfully without always being understood. What this all means is that when reading prose a lot of effort is going into the process of getting things *right,* which leaves less capacity for understanding all of what is actually being read.

On top of this, successful comprehension rests on two other skills: Having successfully decoded the text, the information needs to be held onto whilst processing *what* a question is asking for and then, if the answer is not automatic, *searching* in the right place for a solution. This first task involves using *working memory*. Again, J's score for working memory in the assessment was in the average band and therefore not an obvious weakness. There were several occasions through the assessment, though, where working memory did appear to be an issue. This would certainly have an impact on comprehension. The effort that went into holding onto the meaning of sentences whilst either decoding unfamiliar words or using context to correct substitutions would appear to have used up much of the (finite) capacity for working memory. This would appear to leave little capacity to then integrate the information across the sentences and as a result, J often got the wrong overall sense of passage. Consequently, although his comprehension answers make sense of *his* interpretation, they were often wide of the mark of what was actually being asked for.

The second skill is more mechanical. Locating the information involves recognising what the key information is and scanning back over the text, if necessary subvocalising to remind himself what he is asking for. Sometimes it can mean slowing down, taking a little while to think about the response, especially when it is a question of inference that involves going beyond the surface layer of the text. J was quite rapid and impulsive with his comprehension responses (his comprehension processing speed is in the higher end of the average band) and there was little

evidence of much reflection. These are all skills that J is easily capable of (and can be taught well) but were rarely seen in this assessment.

Summary of prose reading strengths and weaknesses.

Strengths	Weaknesses
Very good reading accuracy Good decoding of multisyllabic words Good use of sentence context to aid self correction Average fluency	Below average reading comprehension Possible impulsivity with comprehension response

Reading – Single Word (Timed)

- *The **Test for Word Reading Efficiency (TOWRE)** consists of two sub tests: The **Sight Word Efficiency (SWE**) test assesses the ability to read single words without the aid of context quickly and efficiently. The **Phonemic Decoding Efficiency (PDE)** test assesses the ability to decode regular non-words, ie words that are unfamiliar but formed in a regular way.*
- *This is a timed test and so allows for assessment of speed of processing as well as accuracy.*

J scored in the average band for both Sight Reading Efficiency (SS 94, 35th percentile) and for Phonemic Decoding Efficiency (SS96, 39th percentile) which gave him an overall score in the average band as well (SS 94, 35th percentile).

In both subtests of the TOWRE, J was quite impatient to start, again an intimation of impulsivity as seen in the DRA and the Matrices test. He had no difficulty understanding the instructions and read with speed and fluency.

No mistakes were made in the Sight Word reading test and only four errors in the Phonemic Decoding Test (one visual error – *'ing'* for *'ig'*, one vowel sound error – *'dref'* for *'dreef'* – and two substitutions of a real word for non word – *'feet'* for *'fet'* and *'desperate'* for *'depate'*).

Reading – Single Word (Untimed)

- *The **Wide Range Achievement test, 4th Edn. (WRAT 4)** is an untimed test of single word reading.*
- *It assesses the ability to read words without the aid of context, and without placing the reader under pressure of time, although if a student does not respond to a word within 10 seconds he or she is asked to move on.*

J scored in the high average band for this test (SS 108, 70th percentile). J's strength in decoding logically was of great benefit here. Several words (eg '*rudimentary'*, '*extemporaneous')* were sounded out correctly without J having any understanding of what the words meant. This tallies with the DRA where again some words were decoded fairly fluently without there always being a clear understanding of their meaning. This might also feed into the bigger picture of why it is that J reads with great accuracy but scores poorly in his comprehension. The majority of substitutions were phonetic transcriptions rather than substitutions of words that looked similar. Whilst this is positive in terms of accuracy, there was not always a sense that words pronounced incorrectly were recognised as such, i.e a lack of self awareness.

The contrast with the TOWRE is that whilst both of the scores fall into the average band, the untimed single word score is in the high average band whereas the timed score is towards the lower end (a difference of 14 in standard scores). This suggests that whilst J has the tools to decode single words (either through sight word recognition, making analogies or breaking down into syllable chunks) he finds it much harder to do this at speed i.e his efficiency of reading single words is likely to be impaired which makes reading less automatic. The scores from the Naming Speed tests support this view - accessing words and symbols at speed is a relative weakness for J. This means that there is less processing 'space' to work through the meaning of a text – reading is not completely automatic and processing effort is still going into decoding and self correcting.

<u>Summary of single reading strengths and weaknesses.</u>

Strengths	Weaknesses
Relatively strong decoding skills	Good decoding possibly masking a lack of understanding of word (without the benefit of context found in prose)
Average sight word reading	Weaker single word reading at speed

Spelling

- *The Wide Range Achievement test, 4th Edn. (WRAT 4)) presents the learner with words of increasing difficulty in the context of a short sentence.*

J achieved a good average score in his spelling (SS102, 55th percentile). He had no hesitation with the spellings. Virtually all the spellings made phonetic sense (eg *'nessesity'* for *'necessity'*) and only 3/14 were errors to do with sound (eg *'iperterbable'* for *'imperturbable'*). Most mistakes highlighted issues with spelling conventions and rules (eg *–tion/-ician/-ssion* confusion, *soft c, -y/ey* endings).

<u>Summary of spelling strengths and weaknesses.</u>

Strengths	Weaknesses
Average spelling ability	Weakness with some spelling rules and

Use of plausible phonetic spellings	conventions

Writing

- *A series of subtests measure speed of copying a sentence in best handwriting (Copy Best), fastest (but still legible) handwriting(Copy Fast) and writing out the letters of the alphabet at speed (Alphabet).*

- *In the free writing element taken from the **Detailed Assessment of Handwriting Speed**, the learner is asked to write on the topic of 'My Life' for 10 minutes. A spider diagram is provided, and suggests various topics that may be included. The learner is given 1 minute of planning time to make brief notes on the spider diagram prior to writing.*

J's scores for the subtests highlight a range of strengths and weaknesses. His score for Copy Best was in the strong average band (SS 105, 63rd percentile). Copy Fast was also in the average band, though at the lowest end (SS 85, 16th percentile). Alphabet and Free Writing, though, were in the below average bracket, both with a standardised score of 75 (5th percentile). J's overall score across the range of DASH tasks gave him a below average score (SS82, 13th percentile).

A left handed writer, his writing was clearly spaced and legible. His grip during the exercise was an unusual thumb over single finger. He began the task with the sheet of paper perpendicular to the desk. His body was hunched over the sheet and his eyes were quite close to the page, suggesting possible issues with sight. He referred back to the sentence strip on several occasions despite having written the sentence down on the page which may have been an issue with working memory, something which was also raised with errors in the Copy Fast test. His poor score in the SMDT also underlined the difficulty J has in moving from the visual to the motor. The minimal difference between writing in best handwriting and writing as quickly as possible shows that there is a difficulty speeding up when the case demands which will have implications for exam situations. The alphabet was written correctly but quite slowly and was far from automatic.

Over the sustained piece of writing of 10 minutes it became clear from the way in which J changed his posture, position of hand and angle of paper that writing can cause some discomfort.

His attitude and concentration were good throughout the task. He clearly understood what he had to do. He used the plan well, adding branches to some of the initial stimuli .When he was writing he often referred back to the plan which he commented on as finding very useful.

The word rate shows that broadly speaking he was fairly consistent in maintaining a steady speed. All of his words were legible and there was just one spelling error. The choice of words was fairly simple (only two adjectives in the entire piece). Grammatically, most sentences were correctly demarcated with full stops and capital letters. Some proper nouns were marked with capitals (eg Scotland) but

many others were not (eg 'cornwall'). Commas were used correctly for lists and to separate up sentences. There were two occasions where prepositions were omitted and no apostrophes were used. This all suggests that there was little, if any, proof reading that took place as the writing was happening.

The piece was clearly structured and well informed by the planning. The sequencing was good and the writing flowed, however, there were no attempts made to paragraph the work.

Summary of writing strengths and weaknesses.

Strengths	Weaknesses
Legible and clearly spaced (throughout task, not just Copy Best)	Slow handwriting speed
Consistent speed and focus	Inability to speed up in exam conditions (as evidenced in the lack of distinction between Copy Best and Copy Fast) An uncomfortable process over a period of time
Correct (simple) punctuation	Simple use of language
Good use of planning to help sequence ideas	No proof reading No paragraphing

Numeracy

The One Minute Number Tests are only norm referenced for children up to 11 and therefore we cannot get a standardised score for J. In terms of age equivalence, though, the scores can give us some information: the addition score is comparable to the average score for a learner aged 11:00 years. The subtraction score is comparable to the average score for a learner aged 9:00 years. Whilst the addition sheet was done without any errors, two simple mistakes were made in the subtraction sheet. This suggests that J's competence with basic number operations is poor and even in the stronger addition, far from automatic. Ease and accuracy with number bonds is a vital building block for the rest of the maths curriculum but also for every day life skills (measuring, money,etc). Making these secure will be an important feature of any programme of remediation.

In the informal maths game to follow up these tests, he made errors with a question about perimeter; for a square of sides 23cm he gave a perimeter of 80cm. When asked to explain his method he said he took 20 and multiplied it by 4 which points to a possible working memory issue - he knew what the method was, but the number he was working with had slipped from his memory. Despite expressing discomfort with times tables he got the times table question (6x4) correct. He was less successful with a question that required him to colour in a fraction (he coloured in ¾

rather than 3/8 – possible link to some of the visual processing issues raised in the WRIT).

Summary of number reading strengths and weaknesses.

Strengths	Weaknesses
Basic addition secure at speed Generally good understanding of a range of maths concepts (time, tables, number sequences, measure, etc)	Subtraction weak at speed Poor visual concept of fractions Low confidence

Overall summary of relative strengths and weaknesses

	Relative strengths	Relative weaknesses
Underlying ability	Relatively good verbal reasoning Relatively good expressive language abilities Perseverance with problem solving in practical tasks	Weak non-verbal reasoning skills Weak visual perception Poor use of strategies to help in deduction Impulsiveness for solving visual tasks
Cognitive skills	<u>Memory</u> Average short term auditory memory and working memory in specific assessment for these skills. Average short term visual retrieval memory Good sequential memory <u>Phonological skills</u> Relatively good phonological manipulation with single words (ie with less pressure on working memory) Average rapid naming of symbols (eg digits) Use of categorisation to group words. Good word retrieval following verbal stimuli <u>Visual Functions</u> Methodical approach. Some attempt to find a strategy.	<u>Memory</u> Possible weakness of working memory in other learning contexts <u>Phonological skills</u> Poor phonological manipulation when working memory is involved. Weak rapid naming of whole words. Poor use of strategies to help with phonological skills. <u>Visual Functions</u> Poor visuo-motor skills Poor attention to detail.

Attainment	Reading Very good reading accuracy. Good decoding of multisyllabic words. Good use of sentence context to aid self correction. Average fluency. Average sight word reading	Reading Good decoding possibly masking a lack of understanding of word (without the benefit of context) Below average reading comprehension Possible impulsivity with comprehension response / lack of self reflection Weaker single word reading at speed
	Writing Consistent speed and focus Correct (simple) punctuation Legible and clearly spaced Good use of planning to help sequence ideas	Writing Slow handwriting speed Simple use of language No proof reading No paragraphing An uncomfortable process over a period of time Inability to speed up in exam conditions
	Spelling Average spelling ability Use of plausible phonetic spellings	Spelling Weakness with some spelling rules
	Maths Basic addition work is secure Generally good understanding of maths concepts (time, tables, sequences, measure, etc)	Maths Poor subtraction (at speed) Possible weakness with visual reasoning eg fractions Low confidence
Use of strategy	Some use of kinaesthetic – eg fingers in memory test	No sub-vocalisation No use of fingers/hands to help problem solve in the WRIT Inefficient choice of strategy in Visual Vigilance test
Approach to tasks	Focused and determined. Prepared to begin again. Some self reflection	Occasional impulsiveness No self questioning during the task eg comprehension

Conclusion

J presented as an interesting and polite student. He was adaptable, willing and showed excellent concentration and focus throughout the assessment session. He was happy to attempt all that was asked of him and was able to reflect on his performance. His good nature and his ability to express himself shone through. He persevered with every task – a skill that stands him in good stead – and whilst there were elements of impulsivity at times, he listened to instructions well.

This last point is significant because it had been raised as an area of concern for J in the classroom context, as had his speaking and listening generally. Difficulties following instructions will have an obvious impact on learning – missing out on critical parts of a task, failing to complete work, going off on the wrong tangent, etc. However, from J's performance during this assessment, it did not seem that he has significant difficulties with understanding and following instructions. Naturally a 1:1 situation is quite different to a classroom but it is important to note that the point of breakdown does not appear to be with language.

In fact, J's **verbal ability** is an important relative strength in his profile. His receptive and expressive vocabulary is firmly in the average band (ie he understands and uses language effectively). He has learnt to use context well to support his knowledge and this is particularly helpful in his reading where he is able to use the clues and cues in a sentence to work out unfamiliar words or correct himself if he makes a mistake. And generally, his ability and confidence to verbalise his ideas lays a valuable foundation for academic work across the board.

J's **non-verbal ability** is less secure. This would appear to have both a specific and a more general impact on J's learning. Specifically, there is an indication that J finds it difficult to understand, analyse and interpret visual information. This will affect how he tackles concepts that are presented visually (eg graphs, diagrams, etc). His mistake on the fraction question in the informal maths assessment where he coloured in 3/4 rather than 3/8 was a window on this kind of difficulty. Attention to detail will be vital here. It will also have an impact when hands and eyes work together in a coordinated fashion (visuo-motor integration). This would appear to have a clear link to the speed and coordination of J's handwriting.

Beyond these specifics lies the more general impact of a weakness in non-verbal reasoning. Being able to make visual analogies enables a lot of the small scale 'mental leaps' carried out in day to day learning – transferring concepts across topics, finding solutions and problem solving. What it suggests is that J may have a weakness when it comes to thinking abstractly and reasoning quickly especially when faced with something new.

In terms of attainment, there are a lot of strengths J brings to his learning. The obvious starting point is his **reading accuracy**. J makes excellent use of two crucial strategies here: as shown in the tests for verbal ability, he makes good use of context

to work out the sense of a word. In addition he is very proficient in his ability to break a word down using phonics. What this does is give him access to all the written areas of the curriculum which is a vital tool for his overall learning.

To maximise this potential he needs to be able to understand what he can so effectively decode – the process of reading accurately is one thing, the purpose (to be able to comprehend what he has read) is quite another. This discrepancy between accuracy and **comprehension** is a major area of concern for J. Its impact is considerable: at this stage of his learning, J is needing to sift through and filter information from a vast range of written sources. If the understanding cannot be grasped, or the wrong interpretation is made, it may affect the cumulative gathering of knowledge i.e in so many subjects at this level, information stacks up, built on the assumption that everything before has been understood. It can make learning difficult if there are missing pieces.

The reason for this relative weakness in comprehension would appear to be a combination of *processing* (on a *word* , *sentence* and *whole text* level) and *method*. Despite the fluent *rate* of reading, the *way* the text is read can be quite disruptive to understanding. Sometimes the wrong word is being pulled down from long term memory. Because J uses context well he recognises his mistake and self corrects, but it can interrupt the flow. Once words have been processed correctly, the meaning of each sentence needs to be worked through and then, and this would appear to be the critical component for J, the sentences need to be pulled together to get an *overall* sense of a text. To do this he needs to remember the information and meaning of each sentence and then integrate them and *this* seems to be the point of breakdown for J – he can make sense of words and sentences but getting the overall 'gist' of a passage can be elusive.

The *method* comes from knowing how to extract information from a text. How to recognise what a question is asking for, how to hold on to that question whilst searching, what method will be best used to help that search, how to check if the answer seems right or wrong. These practical skills, all of which J is very capable of mastering, are currently not being used. Instead, there is an element of impulsivity to the way he answers questions making things much more 'hit or miss'.

Another of J's strengths was his **spelling**. There was only one mistake in his free writing passage and he scored well in the spelling assessment, even when wrong substituting totally plausible phonetic alternatives. It certainly does not seem to be something which hampers his **writing**, or holds it back. Similarly, it was encouraging to see how successful J was at using a plan to help guide his work. Ultimately, though, his **speed of handwriting** stands in the way of J achieving his potential on the page. This would appear to be the result of two factors. Firstly, writing is an uncomfortable process: he is a left hander, he needs to change the angle of the paper and the way he rests his writing hand on the surface regularly enough for it to become disruptive. Encouragingly, he has found a style that suits him (and it is clear and legible) but he is not able to speed up in a time pressured situation (eg exams). Secondly, there would appear to be an issue with visuo-motor processing (i.e how

quickly a motor function can take place from a visual stimuli, in this case writing). Bearing in mind J's relative strength in his expressive language, it could be argued that his writing, particularly when given a time limit, does not reflect his underlying ability.

Finally there is J's **numeracy**. This is an area that J expressed little confidence in, though he showed a secure grasp of basic addition and could apply himself to a range of maths questions. His weakness with subtraction, though, suggests that there may be some important key skills that need to be firmed up. Equipping him with strategies and teaching aids to overcome a lack of automatic knowledge will be important for this next phase of his learning.

So having identified the specific areas of weakness in J's attainment, and looked into the possible reasons why these exist, two significant factors appear to underpin his performance. The first is a slower than average processing speed (whether it is taking in information, pulling it down from long term memory, or converting it into a function). He can carry out all these tasks but not always automatically. The second factor would appear to be limitations with his working memory, i.e problems taking in information and then manipulating it. Despite scoring in the average range in the specific test for this there was evidence in the background information and from observations during the assessment that this could be an issue. The impact of both of these factors in a classroom setting - where so much information is given verbally and the pace of work is taken for granted - is that gaps may emerge in terms of understanding and meaning. The effort and desire to follow all the instructions, absorb all the information, work with it, apply it, etc may be there, but the environment, with all its distractions and assumptions that information has been bedded in, works against this.

In summary, it is clear which areas J would benefit from further input. His comprehension is weak, his writing slow and his numeracy lacking in confidence. The issues with processing speed and working memory need to be recognised in a classroom setting. Recommendations are provided in the attached appendix, for home and school, to help J with these specific areas of weakness and help him achieve his potential. J has many attributes in his learning which will help here: his attitude, his maturity and his focus are all real positives which provide an excellent basis for any future remediation. He brings some very important skills to the table as well: his excellent reading accuracy (reinforced by strong decoding skills and good use of context), his good expressive and receptive language and his relatively strong spelling. He was a pleasure to work with and I was impressed with his focus, his effort and his thoughtfulness. I wish him all the very best for the future.

Recommendations

Further information that would be worth investigating

The evidence from the assessment, in particular the results of the handwriting tests and the SMDT (which measures visuo-motor processing) suggest that activities that involve fine motor coordination may be a potential problem for J. The awkward pen grip, the shifting posture whilst writing and the inability to speed up, the slow processing of visual information, occasional orientation problems – all suggest that a there are *elements* of dyspraxia to J's profile. Alongside these specific markers are the anecdotal observations from professionals who work with J that organisation and planning can be an issue for him with his learning. Also worth noting is J's impulsivity and the comments made about difficulties following and remembering instructions. However, what is not known is any history of late motor development – was J late in reaching the milestones such as sitting, standing, walking, speaking? Has he had difficulties with hand to eye coordination, attention, concentration, etc. A fuller picture needs to emerge. More information about dyspraxia can be found on the dyspraxia foundation website.
http://www.dyspraxiafoundation.org.uk/services/dys_glance.php

Within this site there is a particularly useful section on secondary education with recommendations for how to help with issues in the classroom (instructions, planning, organisation) which could be very worthwhile sharing with the school.
http://www.dyspraxiafoundation.org.uk/services/gu_secondary.php

At the time of writing this assessment, there is no information available about J's sight history. However, the assessment itself highlighted potential areas of difficulty. The WRIT tests suggested that there may be issues with the way that J interprets visual information, the Visual Vigilance test from the PEERAMID 2 , a test of attention, visual discrimination and scanning strategies, gave J a score below that expected for his age group. His posture whilst he was writing was very hunched with his face close to the page. All of these would suggest that there may be issues with visual processing. This will affect the way that J accesses information presented visually (eg maps, diagrams, graphs, etc) and also how he scans and tracks information on a page. This is worth monitoring, particularly by a specialist teacher delivering a specific teaching programme. If there is not satisfactory progress after a period of specialist tuition, it may be worth seeking the advice of an optometrist who could investigate this further.

Access Arrangements

The aim of access arrangements is to provide an equal opportunity to demonstrate knowledge, skills and understanding in an examination context. Looking at J's profile, there are two arrangements that would help to create this opportunity:

25% Extra Time – the current JCQ regulations require evidence that below average processing measures and/or writing and/or reading speeds will be needed to qualify for this extra time. J's below average naming speed for pictures (SS 82), the SDMT test of visuo-motor processing (SS 75) and the DASH score for writing speed (SS 82) would all support this application. His ability to focus and maintain concentration over an extended time suggest that he would be able to exploit this extra time to its full and compensate for his slow processing speeds. Extra time would enable him to use interactive reading strategies and produced detailed plans to support longer writing tasks. An application can be supported by assessment evidence from any time during J's secondary phase of education,

Scribe – J would be eligible for a scribe under current regulations because J's handwriting speed falls in the below average band (DASH SS 82). J's expressive language skills suggest that he would be able to dictate clearly and effectively to a scribe. There is evidence from the assessment that working memory issues might be masking some of his potential as a writer – the effort that it takes to get ideas down on paper may be preventing him from simultaneously thinking about the word choice and the overall structure of his writing. Against this, some people do find it easier to think whilst they are writing – it would be important to see what J himself felt. A scribe would free him up to demonstrate his ability here. A scribe would be preferable to using a word processor at this point in time since J does not appear to use a word processor as his usual practice (though if a course of touch typing proved to be successful using this, rather than a scribe, would be a preferable option since it is far more sustainable in the long run). For an application to have a scribe, a specialist assessment must have been carried out within **26** months of the final exam for which access arrangements are requested.

Ultimately, it is up to the school to decide what access arrangements to apply for and to make application to the awarding body if required. Organising and completing any paperwork that may be required by JCQ (eg Form 8) is also the responsibility of the school .History of need is a vital component of any application and any access arrangements should reflect a normal way of working (and this should be well documented by the school). It is also important that any access arrangements are practised before hand so that a learner is familiar with them before the examinations.

Specialist Teacher

Word reading
- J's word attack skills are a strength. He can successfully break down unfamiliar words into constituent sounds well. He needs to think about the stress of the syllables when he reassembles the word so that he can hear the alternatives. Also worth exploring the morphology of words so that J can begin to see the root word within a multisyllabic word.
- The rules for hard and soft /g/ need to be firmed up.

Comprehension
This is a major area of focus and the possible underlying factors (issues with working memory, slow processing of language, lack of supporting strategies, impulsivity) all need to borne in mind, even if the remediation focus is on just one of these.
- Talking about what J is reading is vital. He has a strength with his expressive language so he will be able to accurately reflect what he has taken in. What has happened? What might happen next? This will help to develop literal and inferential skills. In non-fiction getting J to explain back about something in his own words.
- Teaching how to sub-vocalise – repeating question back under breath with emphasis on key instruction, key word, etc.
- Visualisation: getting J to visualise the text as he reads will help him to understand and remember the text (Read, pause, visualise)
- Turning information into a diagram (flow chart, mind map, etc).
- Rereading sentences and paragraphs to reinforce meaning and checking that the understanding is there.
- Identifying key words in a text – perhaps highlighting if possible. Making the link between key words in questions and key words in the text, and learning how to scan back.
- Where possible, using texts with shorter sentences or breaking long sentences into chunks to help with processing.
- Learn active reading strategies that suit J's style of learning: SQ3R, skimming and scanning, KWL, looking for the 5 'w's (who, what, where, why, when)
- Teach how to recognise the different types of questions (literal, predictive, inferential) and what kind of information each is looking for.
- 'Target: Reading Comprehension' by Bernadette McLean and Rosie Wood has a range of activities that would support J's needs.

Writing
- J used a simple spider map effectively to plan out his writing. Exploring other techniques that might help is worth pursuing so that he can become more independent and automatic in his choice of strategy eg mind maps, linear plans, using a dictaphone, etc
- Using writing scaffolds and frameworks will help structure his writing in a more sophisticated way, according to purpose.

- Getting J to say what he is going to write and how to use subvocalisation as he writes will help to support working memory issues.
- Learning how to use a simple proof-reading checklist will help J to look back over his work and prompt him to look out for simple errors.
- Expanding sentences using connectives and learning how to vary sentence structure/length for effect.
- Extending vocabulary using word cogs/thesaurus/brain storming to encourage more adventurous use of language (particularly use of adjectives, adverbs and conjunctions).
- Learning how to make best use of a scribe. Experience of using a scribe is vital if this access arrangement is going to be pursued. This would break through the constraints of finding sustained writing uncomfortable.
- Learning how to touch type and use a word processor as much as possible for his writing if this seemed to be a more efficient way of getting information down.

Spelling
- Spelling is not a major issue for J, but it would be useful for him to look at the word meaning, root words and the adding of prefixes/suffixes to further improve his spelling.
- 'i' before 'e' rule.
- J needs to be taught concrete ways of making visual analogies with spellings. The WRIT highlighted the fact that J does not find visual analogy easy and so making links between spellings of different words that follow the same convention needs to be explicit rather than assumed.
- Dictation with new spellings will help to reinforce these but also to develop the skill of subvocalisation.

Exam and study skills
- J has a history of organisation difficulties. It would help him enormously to be able to be able to learn how to organise his notes, files, subjects, etc before even beginning to address specific topics.
- J should be taught how to accurately read and analyse exam questions in detail by identifying topic area, limiting words and directive.
- Note taking skills – using abbreviations, different styles (linear, Cornell, etc), turning information into revision cards.
- J would benefit from being able to learn efficient revision strategies and strategies for learning facts and information.

Numeracy
- J needs to make sure that number bonds to 10,20, 100 are all in place and how they can be used to work out other solutions (eg 4 + 6 = 10, 400 +600 = 1000).
- Subtraction needs to be reinforced, using Dienes blocks , or something else that is concrete, to ensure that basic subtraction facts are in place. Reinforce with subtraction flashcards to make this more automatic. Ensure a secure

method is in place for vertical subtraction – again, using concrete apparatus to reinforce.
- Recognise specific points of breakdown in times tables and use multisensory strategies to address these.
- Learn how to use a times table square effectively if times tables are still a problem.
- Explain verbally what visual diagrams, eg graphs, are showing and get J to do the same.

Support in the classroom

The reality of the classroom situation at the end of KS3 (and going into KS4) is that the pace of work will be picking up as the pressures of working through a syllabus come into play. There will be many different teachers for all the different subject area, and each subject (and teacher) will bring a different style of teaching. All of this makes it important that J needs to take ownership over his own learning and be aware himself of the points of breakdown and know how to pre-empt and respond to these. A theme running through support in the classroom situation, then, is getting J to reflect on things himself.

Reading Comprehension
- Getting J to discuss what he has read: summarising the main points of a text, explaining back about something in his own words.
- Making the process of comprehension as concrete as possible – highlighting/underlining key words in a question and linking these to the text. Modelling this process in class.
- Getting J to explain how he has located information – getting him to reflect on using strategies like skimming for information, scanning back, etc.

Writing
- Using planning strategies that J is comfortable with (eg spider diagrams) to map out his writing.
- Getting J to explain what he is going to write before he starts.
- Using scaffolds and frameworks to help structure writing.
- Prompting J to use a proof reading checklist trialled in specialist teaching sessions.
- Using word processor / Alpha Smart in class (if this proves to be viable alternative to writing by hand – this would follow on from a successful touch typing programme).

Visual Processing
- It is important to check that J has understood information that has been presented visually (eg graphs, diagrams, maps, etc). He needs to explain the information back to a teacher/partner.

- Copying from the board is likely to be difficult. Providing handouts will allow him to focus on understanding rather than copying.
- Making visual information as clear cut as possible – simple, large text, not overcrowding information, highlighting/signposting the most important information, etc.
- Prompting J to ask for help if he is finding it difficult to interpret visually presented information.

Working Memory
- Provide opportunities for J to rehearse / paraphrase instructions and avoid instruction overload.
- Get J to explain how visualisation/ association techniques can help him to remember information while working on a task.
- Provide time for discussion.
- Using colour coding strategies, highlighting key words, etc.
- Providing retrieval practice.
- Link facts and concepts to information that J already knows and get him to reflect on these links.

General processing issues
- Break information down into manageable chunks
- Give time to process verbal and written information
- Overlearning – opportunities to practice new techniques to build confidence and automaticity with new skills.
- Avoid overloading and fatigue

Metacognition
- Encourage J to think consciously about how he goes about a task.
- Get him to feedback which strategies might help in particular situations (eg visualisation, using checklists, subvocalisation)
- Develop a greater awareness of the kind of learning that suits J (hands on, visual but not exclusively so).
- Develop questioning techniques (eg de Bono's thinking hats) to help J learn how to analyse information.
- Organisation techniques – visual reminders of homework, how to file work, keeping on top of planner, etc.
- Specific feedback to J on how he can structure his work will help develop this side – set achievable targets.

At Home

Bearing in mind some of the issues of working memory and processing discussed in this report, it is likely that J is working twice as hard as some of his peers just to keep pace. Home needs to be a respite from the demands of school rather than another learning environment. Maintaining his confidence and self esteem is vital. However, there are certain practical things that would also help J;

- Creating an environment with minimal distraction (where possible in a busy family home!) where study can take place fitting in to a regular schedule.
- Asking J to verbalise what he is working on will help to reinforce the information and highlight any gaps / misunderstandings.
- J is not a keen reader but he has a genuine feel for language and enjoys English. Listening to books on an ipod would help to further extend his vocabulary.
- If J does decide to go down the touch typing path, reinforcing this at home would be really helpful.
- Helping J keep on top of his organisation – bag, books, homework, etc will always benefit him.

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Summary of Assessment Outcomes

- J showed an excellent attitude towards his learning. He was adaptable, willing and focused. He expressed himself well, persevered when tasks became more challenging and, although there were elements of impulsivity, listened to instructions well.

- J has a relative strength in the area of verbal ability, but his non-verbal ability falls into the below average band. This is likely to affect the way that he interprets and processes information that is presented visually and non-verbal reasoning generally.

- J reads with great accuracy and makes very good use of context within a sentence and phonic decoding to tackle unfamiliar words. His reading fluency falls into the average band as does his comprehension processing speed. However, his comprehension is below average and this is a significant area of concern.

- A slow visuo-motor processing speed and possible fine motor skill difficulties also impact on his writing both in terms of output. They may also be impacting on general organisation and planning.

- Although the assessment for working memory did not highlight an obvious weakness, there is much to suggest from observation and anecdotal evidence that this could be an issue (and may also feed into the comprehension difficulties). Coupled with a slow processing speed, this will have an impact on the efficiency of being able to access, hold onto and manipulate information.

- J would be eligible for access arrangements in exams to compensate for both slow processing speed (25% extra time) and also for the slow speed of his writing (use of a scribe / or use of a word processor).

- J already receives in class support. This should continue and a further programme of specialist teaching should be considered to help J acquire key skills to overcome the difficulties he currently has with reading comprehension, writing and visual processing.