

## What is the BAS3?

The *British Ability Scales 3 (BAS3)* is a collection of individual tests that are used to assess the general thinking and reasoning skills of children aged from 3 to 17 years. The tests are designed to measure abilities that are important for learning, such as problem solving, remembering things, working out how things relate to one another and understanding language.

## Why has my child been assessed?

Gagan is a Year 1 child who has had a Statement of Special Educational needs since 2009. Gagan has a brittle bone condition. It was concluded during statutory assessment that as well as physical difficulties linked to her bone condition she has very low cognitive ability, difficulties with social skills, delayed language and difficulties with self help skills. Gagan has attended Hightop School, a maintained special school that specialises in providing for young people with physical difficulties and learning difficulties, since the start of Reception. Gagan's parents speak English and Punjabi at home; they consider English to be Gagan's first language. Educational Psychology input was requested by Hightop School to provide up-to-date evidence about Gagan's special educational needs as school felt that Gagan has made considerable progress with learning during her time at Hightop. No cognitive assessment was done during Gagan's statutory assessment; school wonder whether the conclusions that were drawn about her cognitive ability during statutory assessment were an underestimate. If this were the case, school wondered whether it was appropriate for Gagan to start accessing mainstream school. On 4 November, 2011, I spoke with Gagan's class teacher and nursery nurse and I observed Gagan in class. On 7 November, 2011, I returned and completed the British Ability Scales 3 Early Years (BAS3) with Gagan to assess her strengths and weaknesses in verbal skills, pictorial reasoning and spatial skills. As I was told that Gagan can be nervous when working with unfamiliar adults, and as Gagan's sister (Rupi) happened to be present in school that morning, Rupi was present during the assessment.

## Why was the *BAS3* used to assess my child?

The *BAS3* was chosen to assess your child as the results provide an overview of her cognitive strengths and weaknesses and highlight the areas of thinking with which she may need help. Your child's ability to cope with the types of tests included within the *BAS3* is very important and may affect the extent to which she progresses at school. When used alongside other sources of information (i.e. teacher observation, parental feedback), the *BAS3* results help build up a picture of your child, which allows us to understand any difficulties she might be experiencing. We can then decide how to deal with those difficulties.

## What do the *BAS3* results show?

Your child completed the tests that were most suited to identifying her needs. The tests in the *BAS3* combine to produce different types of scores. A summary of these scores and the abilities they test is shown below.

| Type of score                | Measures your child's ability to...   |
|------------------------------|---|
| Verbal Ability               | <i>Understand and use spoken words and language.</i>  |
| Non-verbal Reasoning Ability | <i>Work out why numbers, pictures or patterns are linked with others.</i>   |
| Spatial Ability              | <i>Remember and make sense of shapes and the way they are arranged.</i>   |
| General Conceptual Ability   | <i>Use all three kinds of ability – verbal, spatial, non-verbal reasoning.<br/>This score summarises your child's overall thinking and problem solving abilities.</i>                               |
| Special Non-verbal Composite | <i>Use two kinds of ability – spatial and non-verbal reasoning.<br/>This score is used when children are unable to do tests involving words, or when they would find such tests very difficult.</i> |

## How is the *BAS3* scored?

The *BAS3* scores are presented in percentiles, showing your child's rank when compared with what would be expected for 100 children of the same age. For example, if your child ranked in the 55<sup>th</sup> percentile, it would mean that she scored higher than 55 out of 100 children of the same age.

About two thirds of children will rank between the 16<sup>th</sup> and 84<sup>th</sup> percentile, so percentiles help us to decide how typical or unusual your child's score is.

Descriptions of the percentiles are provided below.






| Percentile                          | Description   |
|-------------------------------------|---------------|
| 1 <sup>st</sup> – 2 <sup>nd</sup>   | Very Low      |
| 3 <sup>rd</sup> – 8 <sup>th</sup>   | Low           |
| 9 <sup>th</sup> – 24 <sup>th</sup>  | Below Average |
| 25 <sup>th</sup> – 74 <sup>th</sup> | Average       |
| 75 <sup>th</sup> – 90 <sup>th</sup> | Above Average |
| 91 <sup>st</sup> – 97 <sup>th</sup> | High          |
| 98 <sup>th</sup> – 99 <sup>th</sup> | Very High     |

## Summary of the *BAS3* scores

Name: ID 0010

Age at Test: 5 years 10 months

Date tested: 07/11/11

|                              | Very Low   | Low | Below Average | Average | Above Average | High | Very High | Percentile       |
|------------------------------|--|-----|---------------|---------|---------------|------|-----------|------------------|
| Verbal Ability               |     |     |               |         |               |      |           | 9 <sup>th</sup>  |
| Non-verbal Reasoning Ability |    |     |               |         |               |      |           | 81 <sup>st</sup> |
| Spatial Ability              |     |     |               |         |               |      |           | 1 <sup>st</sup>  |
| General Conceptual Ability   |    |     |               |         |               |      |           | 9 <sup>th</sup>  |
| Special Non-Verbal Composite |  |     |               |         |               |      |           | 16 <sup>th</sup> |

## Things that may have affected your child's scores:

Gagan smiled on occasion and answered questions when asked but she did not initiate conversation and did not speak more than was necessary. She appeared to be trying her best with the assessment (for example, on a couple of occasions she spontaneously self-corrected) despite tiring towards the end of the assessment. On a number of occasions Gagan became silent when she was unable to complete a task. On these occasions I let her know that it was okay to miss a question and move on to the next one. Gagan's fine motor skills (including her pen grip and letter formation) appeared to be an area of weakness although not to the extent that they interfered with her general performance.

## What do these scores mean?

Your child ranks in the:

- **9<sup>th</sup>** percentile for **Verbal Abilities**, meaning she has performed as well as or better than 9% of the national sample. This suggests that her ability to deal with words and use them to think about and solve problems is **Below Average**.
- **81<sup>st</sup>** percentile for **Non-verbal reasoning Abilities**, meaning she has performed as well as or better than 81% of the national sample. This suggests that her ability to think about and solve problems involving numbers and patterns is **Above Average**.
- **1<sup>st</sup>** percentile for **Spatial Abilities**, meaning she has performed as well as or better than 1% of the national sample. This suggests that her ability to deal with shapes and space and use them to think about and solve problems is **Very Low**.
- **9<sup>th</sup>** percentile for **General Conceptual Abilities**, meaning she has performed as well as or better than 9% of the national sample. This suggests that her ability to deal with a broad range of thinking and problem solving tasks is **Below Average**.
- **16<sup>th</sup>** percentile for **Special Non-verbal Composite score**, meaning she has performed as well as or better than 16% of the national sample. This suggests that her ability to think spatially and/or non-verbally is **Below Average**.

## The BAS3 individual test results

Your child's scores on the individual tests that make up the BAS3 (Core, Diagnostic and Achievement) are provided in the following tables.

### Core tests:

These tests measure your child's thinking abilities and contribute to the overall results shown on the previous page.

| Name of test                      | Task your child was asked to complete...  | Measures your child's ability to...   | Percentile       | Description of results |
|-----------------------------------|---|---|------------------|------------------------|
| <b>Copying</b>                    | <i>Shown a line drawing and asked to copy it.</i>   | <ul style="list-style-type: none"> <li>Recognise and match drawings</li> <li>Control hand movements</li> </ul>  | 1 <sup>st</sup>  | Very Low               |
| <b>Matrices</b>                   | <i>Shown an incomplete grid of abstract shapes and asked to identify the shape (from a multiple-choice selection) which completes the pattern.</i>          | <ul style="list-style-type: none"> <li>Recognise the similarities and relationships between sets of shapes</li> <li>Work out and use rules</li> <li>Use reasoning and problem solving skills</li> </ul> | 62 <sup>nd</sup> | Average                |
| <b>Naming Vocabulary</b>          | <i>Shown a picture of an object and asked to name it (e.g. horse, watch).</i>   | <ul style="list-style-type: none"> <li>Use expressive language (the ability to say things)</li> <li>Name objects</li> </ul>   | 14 <sup>th</sup> | Below Average          |
| <b>Pattern Construction (Alt)</b> | <i>Shown a 2- or 3-dimensional design using blocks, squares or cubes and asked to copy it within a time limit.</i>  | <ul style="list-style-type: none"> <li>Accurately observe, analyse and match designs</li> <li>Solve a problem under time pressure</li> <li>Control hand movements</li> </ul>                            | 2 <sup>nd</sup>  | Very Low               |
| <b>Picture Similarities</b>       | <i>Shown a row of pictures and given a card with an additional picture on it; then asked to match this card to the picture with which it shares a link.</i> | <ul style="list-style-type: none"> <li>Recognise the similarities and relationships between pictures</li> <li>Use reasoning and problem solving skills</li> </ul>                                       | 88 <sup>th</sup> | Above Average          |
| <b>Verbal Comprehension</b>       | <i>Given spoken instructions and asked to carry them out (e.g. 'Give me the pencil').</i>   | <ul style="list-style-type: none"> <li>Understand basic concepts and spoken language</li> </ul>   | 12 <sup>th</sup> | Below Average          |

## Diagnostic tests:

These tests measure your child's abilities in literacy and numeracy. The results enable her educational progress to be compared against what might be expected from her scores on the other *BAS3* tests.

| Name of test                                | Task your child was asked to complete...  | Measures your child's ability to...   | Percentile       | Description of results |
|---|---|---|------------------|------------------------|
| <b>Early Number Concepts</b>                | <i>Shown squares or pictures and asked to answer questions about numbers, size and other numerical concepts.</i>  | <ul style="list-style-type: none"> <li>• Use knowledge of basic numbers</li> <li>• Solve simple number problems</li> <li>• Understand language about number and other mathematical ideas</li> </ul> | 3 <sup>rd</sup>  | Low                    |
| <b>Matching Letter-like Forms</b>           | <i>Shown an abstract shape that resembles letters of the alphabet, with a series of abstract figures below it (the same shapes rotated or reversed) then asked to find the identical match to the original shape.</i> | <ul style="list-style-type: none"> <li>• Recognise and match shapes that have been reversed or rotated</li> <li>• Discriminate between similar shapes</li> </ul>                                    | 4 <sup>th</sup>  | Low                    |
| <b>Recall of Digits Forward</b>             | <i>Listen to a series of numbers and repeat them.</i>   | <ul style="list-style-type: none"> <li>• Listen and recall simple number sequences</li> <li>• Use short-term memory</li> </ul>  | 10 <sup>th</sup> | Below Average          |
| <b>Recall of Digits Backward</b>            | <i>Listen to a series of numbers and repeat them backwards (i.e. in reverse order).</i>   | <ul style="list-style-type: none"> <li>• Listen and recall reversed number sequences</li> <li>• Reverse number sequences</li> </ul>   | 14 <sup>th</sup> | Below Average          |
| <b>Recall of Objects: Immediate Verbal</b>  | <i>Shown a display card containing a series of drawn objects and, after the card has been taken away, asked to name as many of the objects as possible.</i>   | <ul style="list-style-type: none"> <li>• Name objects</li> <li>• Remember and recall a series of objects</li> <li>• Use expressive language (the ability to say things)</li> </ul>                  | 27 <sup>th</sup> | Average                |
| <b>Recall of Objects: Immediate Spatial</b> | <i>After having named the objects in <b>Recall of Objects: Immediate Verbal</b>, asked to recreate the arrangement of the original display using a set of cards with the objects on and a blank grid.</i>             | <ul style="list-style-type: none"> <li>• Remember and recall a series of objects</li> <li>• Remember and recall the arrangement of objects</li> </ul>   | 7 <sup>th</sup>  | Low                    |
| <b>Recall of</b>                            | <b>15-20 minutes after completing Recall of Objects:</b>  | <ul style="list-style-type: none"> <li>• Name objects</li> </ul>  | 18 <sup>th</sup> | Below Average          |

|   |  |  |                  |      |
|---|--|--|------------------|------|
| <b>Objects: Delayed Verbal</b>            | <i>Immediate Verbal, asked to name as many of the objects as possible without any further sight of the display.</i>  | <ul style="list-style-type: none"> <li>Remember and recall a series of objects</li> <li>Remember and recall the arrangement of objects</li> <li>Use expressive language (the ability to say things)</li> </ul> |                  |      |
| <b>Recall of Objects: Delayed Spatial</b> | <i>After recalling the names of the objects in Recall of Objects: Delayed Verbal, asked to recreate the arrangement of the original display using a set of cards with the objects on and a blank grid.</i> | <ul style="list-style-type: none"> <li>Remember and recall a series of objects</li> <li>Remember and recall the arrangement of objects</li> </ul>  | 8 <sup>th</sup>  | Low  |
| <b>Recognition of Pictures</b>            | <i>Shown a picture of one or more objects for a short time; then shown another picture containing the same objects plus extra objects; then asked to point to the original ones.</i>                       | <ul style="list-style-type: none"> <li>Recognise and remember pictures of objects</li> <li>Use short-term memory</li> </ul>  | 92 <sup>nd</sup> | High |



## Summary of the *BAS3* assessment

### Views of the child

Gagan said that she likes school and that the best thing about school is that she gets to play with her friend Steff. When asked what could be better about school, Gagan said, "Nothing."

### Views of parents

I spoke to Gagan's mother on the telephone on 7 November, 2011. She spoke about how much progress Gagan has made at Hightop and about how she believes that this level of progress would not have been made if Gagan had been at a mainstream school. Further, Mrs Grewal commented that she feels that Gagan would not be able to access mainstream school because of the large number of children there and Gagan's brittle bone condition.

### Views of psychologist: Next steps

The results of this assessment suggest that Gagan's cognitive abilities a) are greater than was indicated during her statutory assessment and b) are also greater than is usual for students on roll at Hightop. Given Gagan's low levels of confidence and her reluctance to engage in conversation it is possible that Gagan's ability is not fully evident in the classroom environment. Those working with Gagan should be aware of her great strength in pictorial reasoning. Where possible, visual means of learning (for example, using pictures, computer games and mind-maps) should be used to supplement and support Gagan's language-based learning. Hightop should continue to liaise with Gagan's Occupational Therapist to put in place a programme to develop her fine motor skills and to further assess her visual-spatial skills as these are an area of significant weakness. Gagan has made significant progress since her Statement of Special Educational Needs was written. An interim review has been called at Hightop School (10am on 25 January, 2012) to update her Statement so that it more accurately describes her needs. All involved in working with Gagan (both her family and professionals) should start to consider the possibility of Gagan accessing some mainstream inclusion. Gagan remains a vulnerable child both because of her brittle bone condition and her varied learning profile. As such, any mainstream inclusion would need to be carefully planned and monitored.

### Any other comments

Given the level of difference between Gagan's non-verbal reasoning ability and her general conceptual ability it is best practice to consider her full pattern of scores rather than to quote her general conceptual ability on its own.

### Assessment completed by:

A. Psychologist, Independent Assessment Services