A large blue triangle is positioned in the bottom-left corner of the slide. In the top-left area, there are three overlapping triangles: a light blue one, an orange one, and a pink one, all pointing towards the center.

Understanding the CAT4 assessment and reports



What is CAT4?

CAT4: Cognitive Ailities Test Fourth Edition

CAT4 assesses a student's abilities across four different reasoning batteries:

Verbal reasoning – thinking with words

Quantitative reasoning – thinking with numbers

Non-Verbal reasoning – thinking with shape

Spatial reasoning – thinking with space and shape

It is important to note that this is an assessment of ability and not attainment



Ability vs. Attainment

Cognitive Abilities Test

- Requires no preparation
- Assesses regardless of previous teaching and schooling
- Gives an indication of the ability of a student to learn
- Used at the beginning of the academic year to ensure appropriate support and intervention is in place

Attainment Testing

- Often requires revision and practice
- Assesses skills and content knowledge that have been taught
- Gives an indication of what has been learnt
- Used at the end of teaching modules to track progress and identify whether any gaps in knowledge or skills are present



What is CAT4 used for?

- Identifying academic potential
- Understanding how a student thinks
- Determining where further support may be necessary
- Highlighting any possible barriers to learning
- Setting targets
- Providing feedback to the teacher, to the student and to the parent



Verbal Reasoning

Your turn...

Verbal Classification

happy sad frightened

tall

feel

think

new

angry

Verbal Analogies

cow → milk : chicken →

feather

dinner

egg

hen

bird

Quantitative Reasoning

Your turn...

Number Analogies

Practice 1

[5 \rightarrow 4] [8 \rightarrow 7] [3 \rightarrow ?]

1	2	3	5	6
---	---	---	---	---

Number Series

Practice 1

5 10 15 20 \rightarrow

25	30	35	40	45
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Non-Verbal Reasoning

Your turn...

Figure Classification

Practice 1

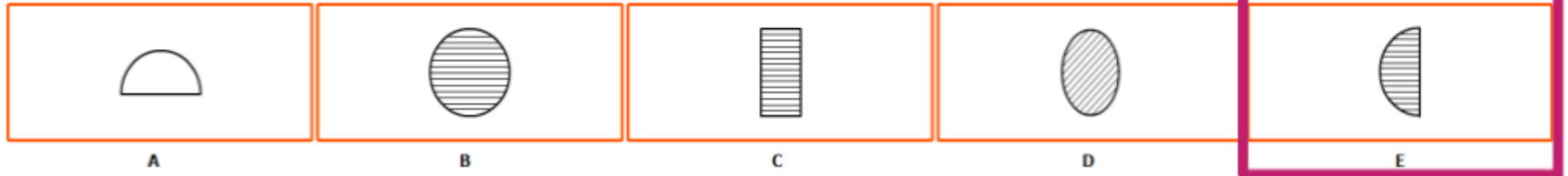
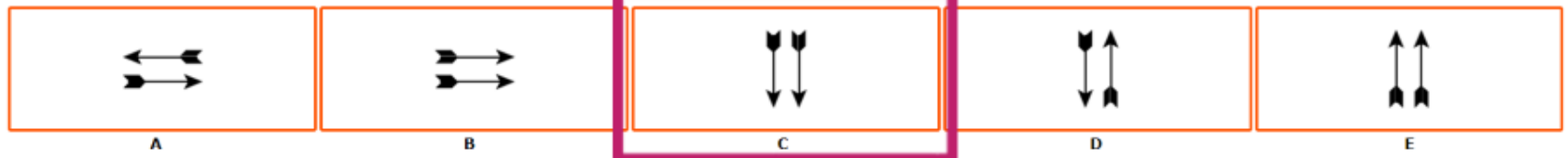
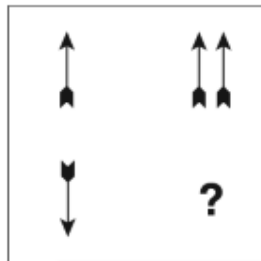


Figure Matrices

Practice 1

Choose your answer by clicking on it with the mouse.

If you want to change your mind, just click on your new answer choice.

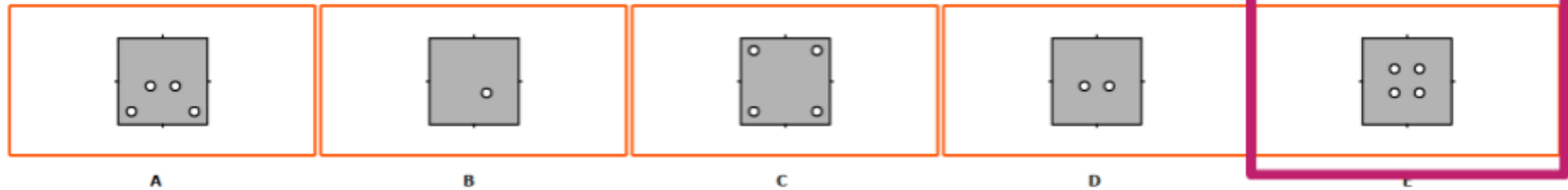
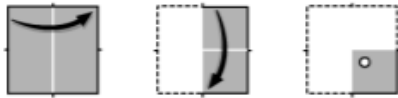


Spatial Reasoning

Your turn...

Figure Analysis

Practice 1



A

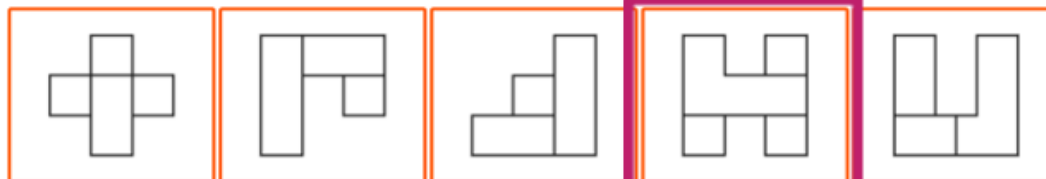
B

C

D

E

Figure Recognition



A

B

C

D

E



What is Spatial Reasoning?

The ability to generate, retain and manipulate abstract spatial images", Lohman (1979)



What is Spatial Reasoning?

Strengths

- Spatial
- Understanding
- Logical
- Creative



Visual thinkers:

are
concepts

Weaknesses (perceived)

- Little
- Oral
- Detailed



Visual thinkers

detail
handwriting

Students with good spatial reasoning ability have a high potential in subjects such as Science, Technology, Engineering, Mathematics and the Creative Arts.

These subjects are important for the future career prospects of our students.



Verbal Reasoning

- Verbal reasoning is the ability to think with words.
- The verbal reasoning battery is the only battery that is influenced by students' English language skills.
- Students who do not have English as a first language may find their verbal score to be lower than the other batteries.
- As verbal reasoning can be influenced by schooling, students can improve their verbal score by improving their English language skills.
- There will be strategies suggested in your Parent Report that will guide how you can support your child with their verbal reasoning skills at home.



Understanding the Reports

Standardised Age Score (SAS)

The raw scores for each of the 4 batteries of test are converted into a Standardised Age Score .

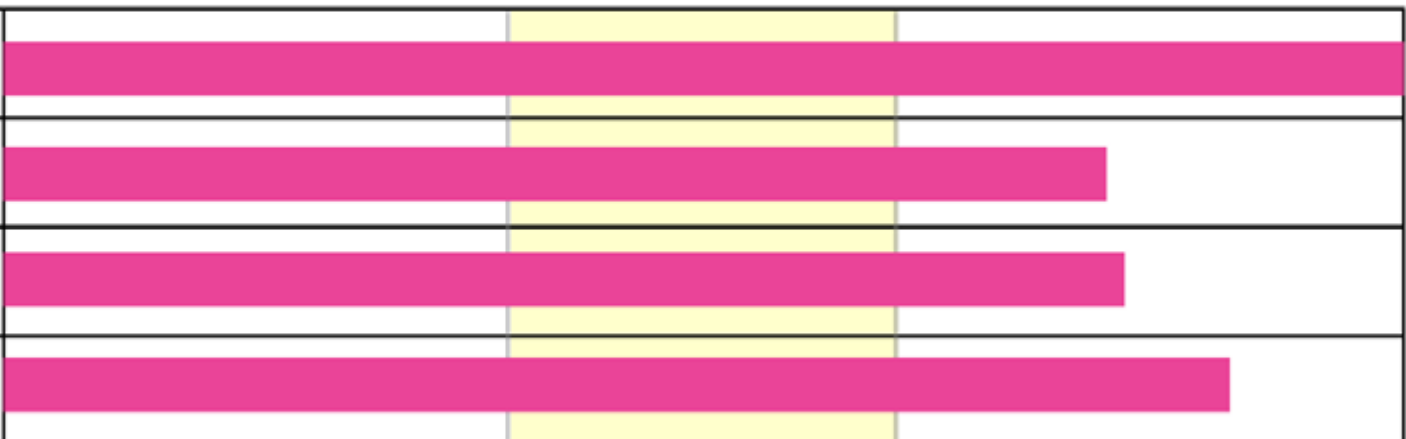
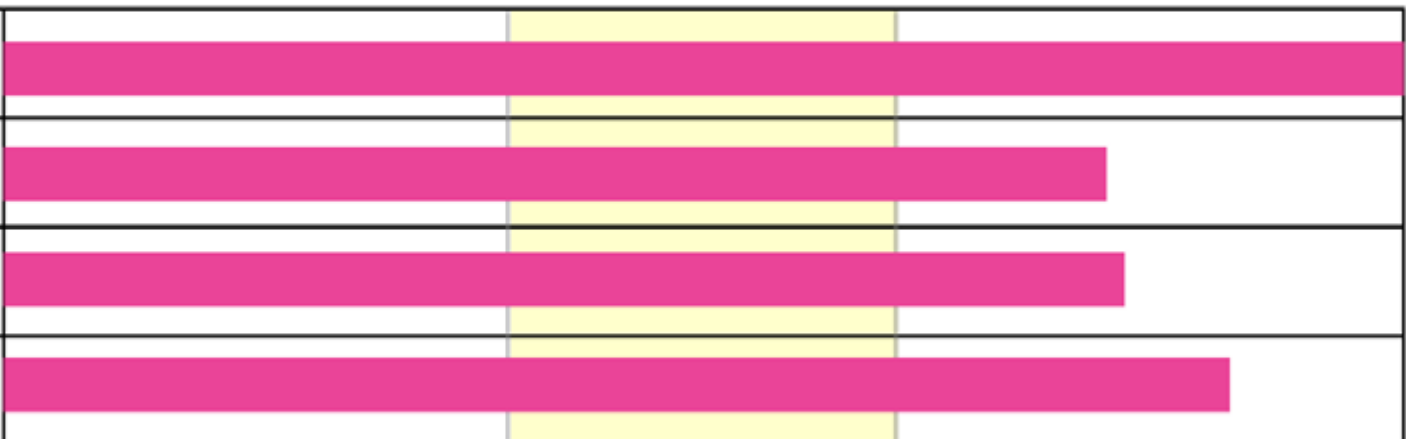
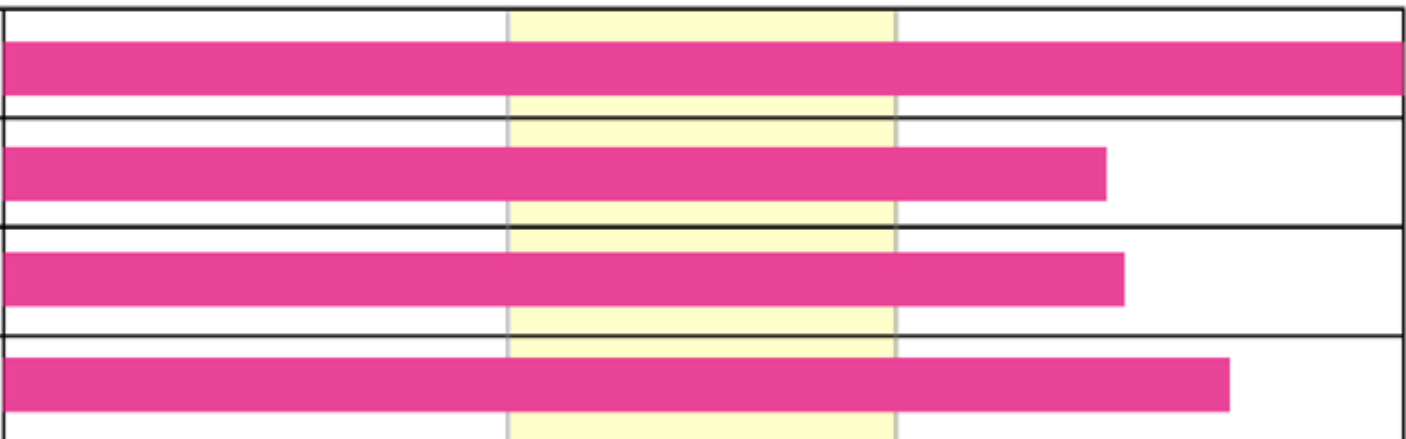
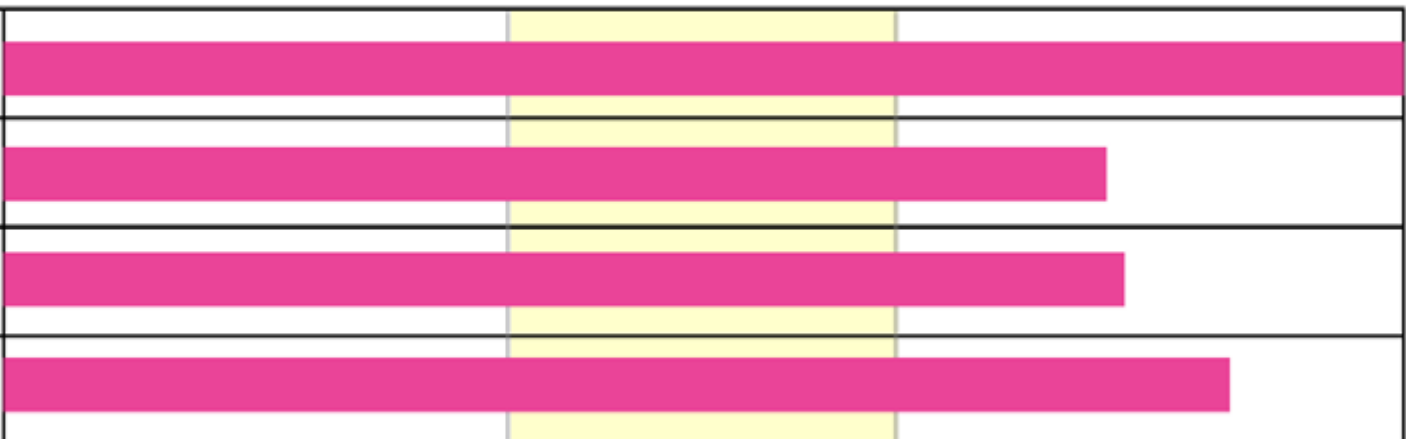
This gives an indication of how the student is performing relative to a sample of students of the same age.

A score of 100 is considered average and a score of below 100 below average and above 100 , above average.

SAS scores can range from 65 – 141

Understanding the Reports

The yellow band highlights where the “average” scores lie.

Verbal	 <table><tr><th>Reasoning Skill</th><th>Student Score (Pink Bar)</th><th>Average Range (Yellow Band)</th></tr><tr><td>Verbal</td><td>High</td><td>Medium</td></tr><tr><td>Quantitative</td><td>High</td><td>Medium</td></tr><tr><td>Non-verbal</td><td>High</td><td>Medium</td></tr><tr><td>Spatial</td><td>High</td><td>Medium</td></tr></table>	Reasoning Skill	Student Score (Pink Bar)	Average Range (Yellow Band)	Verbal	High	Medium	Quantitative	High	Medium	Non-verbal	High	Medium	Spatial	High	Medium
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Quantitative	High	Medium														
Non-verbal	High	Medium														
Spatial	High	Medium														
Quantitative	 <table><tr><th>Reasoning Skill</th><th>Student Score (Pink Bar)</th><th>Average Range (Yellow Band)</th></tr><tr><td>Verbal</td><td>High</td><td>Medium</td></tr><tr><td>Quantitative</td><td>High</td><td>Medium</td></tr><tr><td>Non-verbal</td><td>High</td><td>Medium</td></tr><tr><td>Spatial</td><td>High</td><td>Medium</td></tr></table>	Reasoning Skill	Student Score (Pink Bar)	Average Range (Yellow Band)	Verbal	High	Medium	Quantitative	High	Medium	Non-verbal	High	Medium	Spatial	High	Medium
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Verbal	High	Medium														
Quantitative	High	Medium														
Non-verbal	High	Medium														
Spatial	High	Medium														

This student has scored above average in every battery.
This tells us that this student is highly able across all four reasoning skills.

Understanding the Reports

The indicators provide the statistical probabilities of achieving different grades in different subjects.

You can see the “most likely” grades in the first column and the “if challenged” grades in the next column.

The bar chart in the last column represents the statistical probabilities in a visual format.

This is an example of Indicators at GCSE level.

Indicators for GCSE

Subject	Most likely grade achieved		'If challenged' grade achieved		GCSE grade									
					U	G	F	E	D	C	B	A	A*	
D&T – Textiles	A*/A	8	A*	9										
English	A*/A	8	A*	9										
English Literature	A*/A	8	A*	9										
Maths	A*/A	8	A*	9										
D&T – Food	A	7	A*	8										
Geography	A	7	A*	8										
History	A	7	A*	8										
Religious Education	A	7	A*	8										
Science – Biology	A	7	A*	8										
Science – Chemistry	A	7	A*	8										
Science – Physics	A	7	A*	8										



Understanding the Reports

The summary provides commentary on the results from the CAT4 assessment and gives some guidance about strategies you can use at home to support your child.

Summary

Jessica's profile of scores from *CAT4* shows she has a clear preference for learning by reading, writing and talking about topics but odd spatial skills will mean that she can learn effectively in a number of different ways.

- Jessica may find that she gets ahead very quickly in some subjects and so needs extra work that allows her to do more research or read around a subject or follow her own interests. As some students may be reluctant to ask for this, do encourage Jessica to approach the teachers.
- Jessica will learn best when working step-by-step through a subject or task.
- Encourage Jessica to read widely outside school. Reading from a range of different types of books will add to her knowledge and skills.
- Think about activities outside school that build on her abilities, for example debating, drama or science club. She may enjoy these if she is not already taking part.



Questions?

