

# CEM IBE

Student Guidance and Performance  
Monitoring for the IB Diploma

## Key aims

After this session you will be able to

1. Understand the use of CEM IBE at Sha Tin College
2. Know how to interpret Individual Pupil Records (IPRs)
3. Know how to interpret a Chances Graph



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‘Ours is a culture where we take responsibility for **fulfilling our own potential** and that of others for the good of humanity at all levels.’

# CEM IBE & ESF

- CEM IBE has been in use across ESF from Sept 2009
- CEM is part of the University of Durham.
- CEM run four tests at different ages and it is used by millions of students in over 70 countries
- Students tracked by CEM from Year 1 to 13 at ESF
  - INCAS Primary
  - MidYIS Secondary entry
  - Insight Year 9
  - CEM IBE Senior School



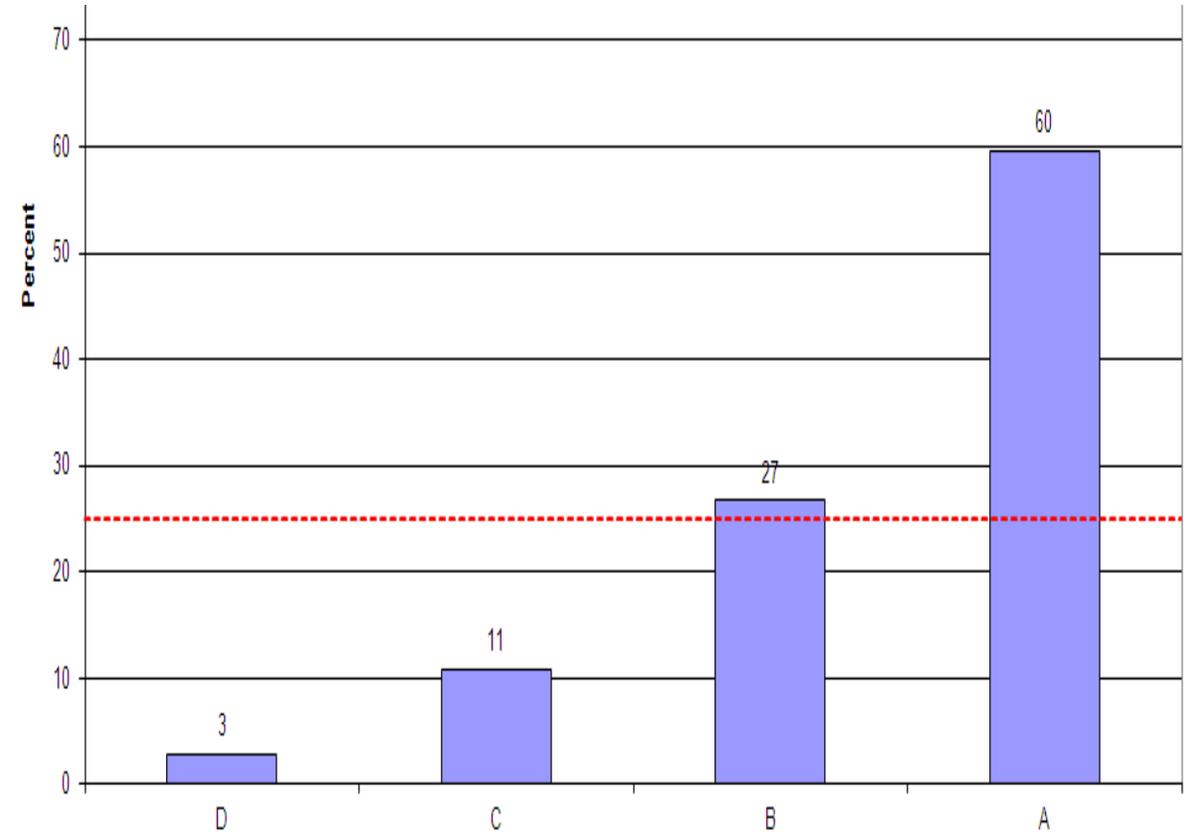
# CEM IBE tests...

- **Vocabulary** measures fluency and the use of words picked up from the student's background, not necessarily from English lessons
- **Maths** assesses logical thinking, manipulating numbers and numerical concepts without being linked to the Maths syllabus.
- **Non-verbal** asks students to recognise shapes, match pictures and use visual intuition as a measure of perceptual speed and accuracy

# CEM IBE Results

- Are standardised against a global cohort
- A score of 100 is deemed 'average' or on the 50<sup>th</sup> percentile
- Results are broken down into quartile bands, A, B, C & D
- While a UK state 'comprehensive' intake would be 25% per band, STC differs from this pattern significantly

# STC Bands



# The Individual Pupil Record

- In each test the following four pieces of information are provided for each pupil, as well as an overall score
- **CEM IBE Band**  
Each of the four CEM IBE Bands (A to D) includes 25% of the internationally representative sample. Band A represents the top 25% and Band D the lowest.
- **Stanine**  
One of nine divisions of the normal distribution of CEM IBE scores where Stanine 9 is the highest.
- **Percentile**  
Percentage of the nationally representative sample scoring less than this student.
- **Standardised Score**  
Score standardised against a nationally representative sample, where the sample mean is set to be 100 and the standard deviation is 15.

Band A	Stanine 9	87 <sup>th</sup> Percentile
	Stanine 8	
Band B	Stanine 7	48 <sup>th</sup> Percentile
	Stanine 6	
	Stanine 5	
Band C	Stanine 4	Percentile
	Stanine 3	
Band D	Stanine 2	Percentile
	Stanine 1	

# Reading An IPR

## Example

### Vocabulary Ability

This pupil's Vocab score falls just below the average score, placing the pupil in Band C. The pupil performed better than 45% of the students in this sample.

### Maths Ability

In contrast their Maths score is well above the average placing the pupil in the top 25% of all performances globally.

### Non Verbal Ability

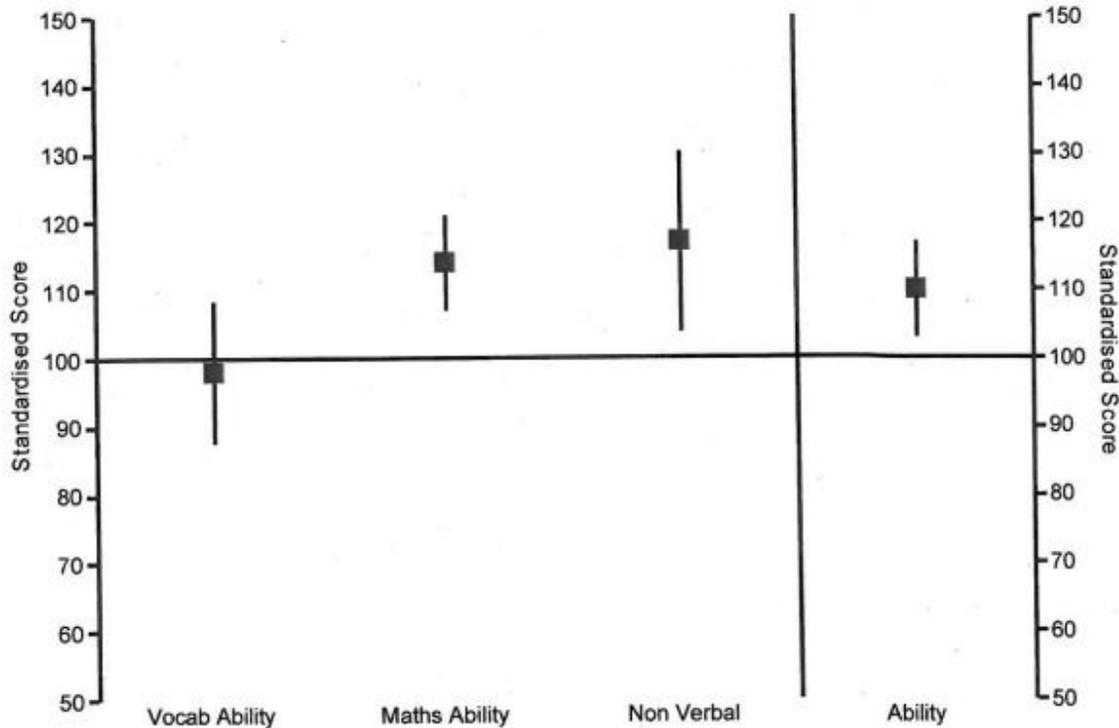
With a score of 117, the non-verbal score is well above average placing too. The student has performed better than 87% of all the students in the sample.

### Comment

The vocabulary is out of kilter with the other elements of this profile. A focus on reading for pleasure and learning subject specific technical vocabulary will really support this student to achieve their potential.

	Standard Score	Band	Stanine	Percentile
Vocab Ability	98	C	5	45
Maths Ability	114	A	7	82
Non Verbal	117	A	7	87
Ability	110	B	6	75

Standardised Scores with 95% Confidence Band



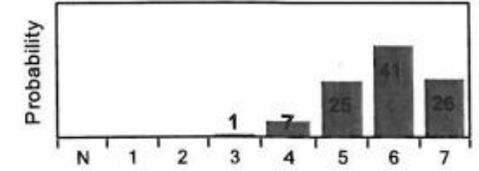
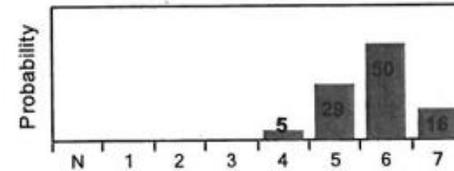
<b>Raw Score</b>	The student's observed scores on the various components of the baseline test.
<b>Standardised Score</b>	Score standardised to have a mean = 100 and Standard Deviation = 15.
<b>Band</b>	One of four divisions, each containing 25% of the sample (D=lowest, A=highest).
<b>Stanine</b>	One of nine divisions of the Normal distribution (1=lowest, 9=highest).
<b>Percentile</b>	Percentage of the sample scoring less than this student.

# Chances Graphs

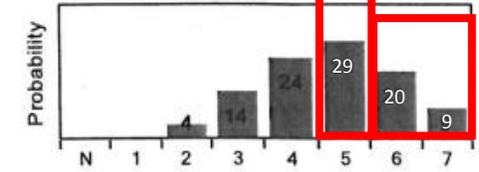
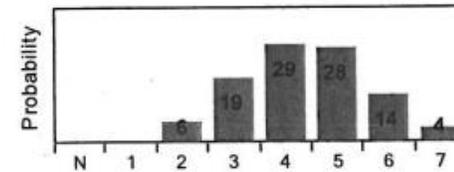
- Students who achieved the same profile of potential as your child went onto achieve these results
- What do you and your child aspire to?
- What is realistic?
- How will your child balance academic progress with a balanced, rounded and happy life?

Subject	Predictions from GCSE		Predictions from Test	
	Points	Grade	Points	Grade
IB-H-Geography	5.7	6	5.8	6
IB-H-Mathematics	4.4	4	4.7	5
IB-H-Physics	4.7	5	4.9	5
IB-S-Biology	5.3	5	5.5	6
IB-S-English A: Language & Literature	5.4	5	5.5	5
IB-S-Mandarin_B	6.2	6	6.3	6

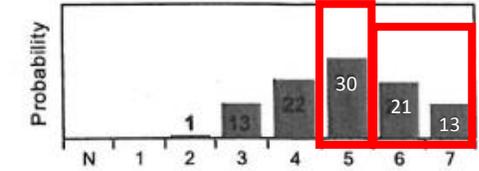
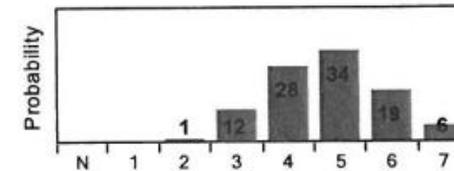
GCSE - IB-H-Geography - Adaptive Test



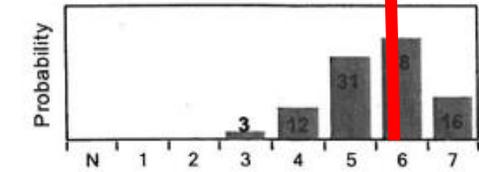
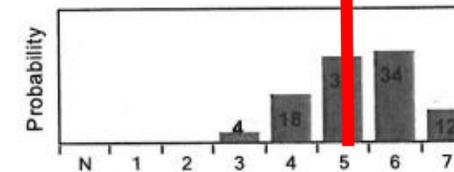
GCSE - IB-H-Mathematics - Adaptive Test



GCSE - IB-H-Physics - Adaptive Test



GCSE - IB-S-Biology - Adaptive Test



The graph to the left is based upon GCSE Scores, whilst the graph on the right is based upon baseline test

CEM IBE is only one part of a range of tools for teachers to help improve your child's learning.

It is designed to provide us with a measure of potential.

We will compare this to the picture we are developing of your child as a learner through other means such as talking with your child, assessing their work, classroom observation and looking at IGCSE and other qualification results.



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