

## MATHSWATCH COVERS EVERY TOPIC ON THE IGCSE SYLLABUS

Grades that will be examined: Grades that can be obtained:

|          |   |   |   |   |   |   |   |   |   |
|----------|---|---|---|---|---|---|---|---|---|
| Extended | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Core     | 1 | 2 | 3 | 4 | 5 |   |   |   |   |

|          |   |   |   |   |   |   |   |   |   |
|----------|---|---|---|---|---|---|---|---|---|
| Extended |   |   | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Core     | 1 | 2 | 3 | 4 | 5 |   |   |   |   |

The Maths Grade 1 to 9 syllabus  
is split into 4 areas and 234 videos.

Number - 80 videos  
Algebra - 65 videos  
Geometry and Measures - 62 videos  
Probability and Statistics - 27 videos

How long will it take to revise?

The timings of our videos are:

0 to 5 mins . . . . 90 videos  
5 to 10 mins . . . . 107 videos  
10 to 15 mins . . . . 30 videos  
15 to 20 mins . . . . 7 videos

| Grade 1                                           | Grade 2 cont.                                      |
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| Ordering Decimals . . . . . 3                     | Percentages - Introduction . . . . . 33            |
| Reading Scales . . . . . 4                        | Direct Proportion - Introduction . . . . . 34      |
| Simple Mathematical Notation . . . . . 5          | Value for Money . . . . . 35                       |
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|                                                   |                                                    |
|                                                   | <u>Prime Numbers</u>                               |
|                                                   | 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, . . .          |
|                                                   | Each prime number has<br>exactly two factors.      |

| Grade 4                                            | Grade 5                                              |
|----------------------------------------------------|------------------------------------------------------|
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| Scatter Diagrams . . . . . 130                     |                                                      |
| Averages From a Table . . . . . 131                |                                                      |

|                            |                   |
|----------------------------|-------------------|
| <u>The Laws of Indices</u> | <u>Pythagoras</u> |
| $x^a \times x^b = x^{a+b}$ | $a^2 + b^2 = c^2$ |
| $x^a \div x^b = x^{a-b}$   |                   |
| $(x^a)^b = x^{ab}$         |                   |
| $x^{-a} = \frac{1}{x^a}$   |                   |

| Grade 3                                           |                                              |
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| Subject of a Formula - Introduction . . . . . 86  |                                              |
| Generate a Sequence from $n$ th Term . . . . . 87 |                                              |

|                                                          |
|----------------------------------------------------------|
| <u>Addition/Subtraction</u>                              |
| $(++)$ becomes $+$ eg. $5 - (-3) = 5 + 3$                |
| $(--)$ becomes $+$                                       |
| $(+-)$ becomes $-$ eg. $5 + (-3) = 5 - 3$                |
| $(-+)$ becomes $-$                                       |
| <u>Multiplication/Division</u>                           |
| $(+) \times (+)$ becomes $+$ eg. $(-5) \times (-3) = 15$ |
| $(-) \times (-)$ becomes $+$                             |
| $(+) \times (-)$ becomes $-$ eg. $(-5) \times 3 = -15$   |
| $(-) \times (+)$ becomes $-$                             |

| Grade 6                                              | Grade 7 cont.                                  |
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| Trigonometric Graphs . . . . . 180                   |                                                |

|                                          |                                                  |
|------------------------------------------|--------------------------------------------------|
| <u>Fractional Indices</u>                | <u>Surds</u>                                     |
| $x^{\frac{a}{b}} = (\sqrt[b]{x})^a$      | $\sqrt{a} \times \sqrt{a} = a$                   |
|                                          | $\sqrt{a \times b} = \sqrt{a} \times \sqrt{b}$   |
| <u>Quadratic Formula</u>                 | $\sqrt{\frac{a}{b}} = \frac{\sqrt{a}}{\sqrt{b}}$ |
| $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ |                                                  |