| Sh Ed | aw ucation Reademy ust Keademy | nowledge Organiser - Mathemat | ICS Significant figures, Co-ordinates, Area, Sta | indard form |
|-------|--|--|---|--|
| | Topic | Information | Examples | Sparx Clip |
| 1 | Significant figures | Significant figures are the digits in a number that contribute to the accuracy of it. We start counting significant figures at the first non- zero digit of a number which is called the first significant figure, the next digit is then called the second significant figure and so on. | Round 3692 to one significant figure 1 s.f. 3692 Round 0.07039 to two significant figures. 0.07039 is 0.070 to 2 s.f. Round 24.753 to three significant figures 24.7 is 24.8 to 3 s.f. | M994, M131, M878 |
| 2 | Co-ordinates and mid- points | Method 1: add the x coordinates and divide by 2, add the y coordinates and divide by 2 Method 2: Sketch the line and find the values half way between the two x and two y values. | Find the midpoint between (2,1) and (6,9) $\frac{2+6}{2} = 4$ and $\frac{1+9}{2} = 5$ So, the midpoint is (4,5) | M618, M622, M230 |
| 3 | Area and units | Area of a Rectangle Length x Width Area of a Parallelogram Base x Perpendicular Height Area of a Triangle Base x Perpendicular Height ÷ 2 | 9 4 5 $A = 24cm^2$ | M390, M269, M610, M291, M705, M728 |
| 4 | Area and circumference | $A = \pi r^2$ which means 'pi x radius squared'. $\mathcal{C} = \pi d$ which means 'pi x diameter' | If the radius was 5cm, then: $A = \pi \times 5^2 = 78.5 cm^2$ If the radius was 5cm, then: $C = \pi \times 10 = 31.4 cm$ | M135, M595, M208, M431, M169, M231 |
| 5 | Standard form and ordinary numbers | $A \times 10^{b}$ where $1 \le A < 10$, $b = integer$ | $8400 = 8.4 \times 10^{3}$ 0.00036 = 3.6 × 10 ⁻⁴ | M113, M719, M678 |