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| **Title of unit:** | Calculations and Accuracy |
| **Overview of unit:** | Directed NumbersPlace valueBIDMASRounding and estimatingBounds |
| **Cross-curricular/ extra-curricular links:** | Business Studies – awareness of sensible answersGeography – use of negative numbers to interpret below sea levelHistory – use timelines and interpret negative numbers (AD and BC)MFL – use of, and calculation with, moneyScience – estimating quantities or results of calculations |
| **Literacy/ numeracy links:** | Worded problems/exam questionsKeywords displayed on all PPts – positive, negative, zero, place value, units, tens, hundreds, thousands, decimal point, tenths, hundredths, thousandths, brackets, indices, division, multiplication, addition, subtraction, decimal place, significant figure, estimate, upper, lower, bounds, maximum, minimumWritten plenaries |

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| **Grade:** | **Learning objective:** | **Resources:** |
| **1** | +/-/x/÷ with 2 or 3 digits+/-/x/÷ directed numbers.Understand inverse operations.Understand place value. | [Four operations](https://www.piximaths.co.uk/four-operations)[Directed numbers](https://www.piximaths.co.uk/directed-numbers)[Place value](https://www.piximaths.co.uk/place-value) |
| **2** | Understand and apply the correct order of operations (BIDMAS).Calculate money problems.Round to a given number of decimal places. | [BIDMAS](https://www.piximaths.co.uk/bidmas)[Money calculations](https://www.piximaths.co.uk/money-calculations)[Rounding and estimating](https://www.piximaths.co.uk/rounding-and-estimating) |
| **3** | Round to a given number of significant figures.Use place value to calculate changes to calculations.Use a calculator for complex calculations. | [Rounding and estimating](https://www.piximaths.co.uk/rounding-and-estimating)[Changes to calculations](https://www.piximaths.co.uk/place-value)[Using a calculator](https://www.piximaths.co.uk/using-a-calculator) |
| **4** | Find upper and lower bounds.Estimate answers to calculations. | [Bounds](https://www.piximaths.co.uk/bounds)[Rounding and estimating](https://www.piximaths.co.uk/rounding-and-estimating) |
| **5** | Use inequality notation to specify error intervals due to rounding. | [Bounds](https://www.piximaths.co.uk/bounds) |
| **6** | Find the upper and lower bounds of calculations with quantities given to a various degrees of accuracy. | [Bounds](https://www.piximaths.co.uk/bounds) |
| **7** |  |  |
| **8** |  |  |
| **9** |  |  |