SOLVING PROBLEMS

Pupils should be taught to:	As outcomes, Year 4 pupils should, for example:
Make and investigate a general statement about familiar numbers or shapes by finding examples that satisfy it	Find examples that match a general statement. For example, explain and start to make general statements like: • *The sum of three odd numbers is odd.* Examples: 3 + 5 + 7 = 15 137 + 31 + 465 = 633 • *If 14 < □ < 17, then any number between 14 and 17 can go in the box.* Examples: 16, 14.5, 16.99 • *Half way between any two multiples of 10 is a multiple of 5.* Examples: 90 and 120 are both multiples of 10; half way between them is 105, which is a multiple of 5. • *Multiples of 4 end in 0, 2, 4, 6 or 8.* Examples: 12, 64, 96, 108, 6760 • *Any odd number is double a number add 1.* Example: 63 = 2 × 31 + 1 • *If I multiply a whole number by 10, every digit moves one place to the left.* Examples: 63 × 10 = 630 5 × 10 = 50 366 × 10 = 3660 • *The perimeter of a rectangle is twice the length plus twice the breadth.* Example: The perimeter of a 5 cm × 3 cm rectangle is: 5 cm + 3 cm + 5 cm + 3 cm = 16 cm. This is the same as 5 cm × 2 add 3 cm × 2. • *The number of lines of reflective symmetry in a regular polygon is equal to the number of sides of the polygon.* Example: a regular hexagon has 6 sides and 6 lines of symmetry. Start to express a relationship orally in words. For example: • Explain how to find the number of days in any number of weeks. • Explain how to find the change from £1 after buying two first class stamps. • Describe a short way to work out the perimeter of a rectangle. • The rule is add 4. Start with 0. Explain how to find the first five numbers in the sequence. What would the 10th number be? • A sequence starts 1, 4, 7, 10, 13... Explain in words the rule for the sequence.