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| **Student Name:** | **PHASES IN SKILL DEVELOPMENT** | | | | | |
| **Curriculum Skill: "*Operations (Addition)"***  **GLD Level:** Mild  **Curricular Area:** Mathematics  **Curricular Strand:** Operations |  | **Attained** | | | **Extended** | |
| **Acquiring** | **Becoming Fluent** | **Maintenance** | **Generalisation** | **Application** | **Adaptation** |
| Develop an understanding of addition by combining or partitioning sets, use concrete materials 0-20:    *find all the addition combinations to make up a given number:  11 + 1 = 12, 2 + 6 + 4 = 12  record addition: orally, pictorially, in number sentences, in jumps on the number line* |  |  |  |  |  |  |
| Explore, develop and apply the commutative, associative and zero properties of addition:    *commutative property: 6 + 2 = 8, 2 + 6 = 8  associative property: (2 + 3) + 5 =10, 2 + (3 + 5) =10  zero property: 7 + 0 = 7* |  |  |  |  |  |  |
| Develop and/or recall mental strategies for addition facts within 20:    *use concrete materials to count on using commutative  property, zero property, counting in twos,  doubles and near doubles  pairs of numbers that total 10 (6 + 4 = 10)  complement numbers to 10 (3 + n =10)  orally memorise addition facts using strategies* |  |  |  |  |  |  |
| Construct number sentences and number stories; solve problems involving addition within 20:    *construct and tell a number story, record pictorially, as a number sentence or as a written story  solve written problems; pupils can also devise problems for each other* |  |  |  |  |  |  |
| Add numbers without and with renaming within 99:    *estimate sum by adding the tens, check estimates using manipulatives  add numbers using concrete materials, notation boards, number lines and hundred squares  use mental calculations  record using number lines, number sentences and algorithm* |  |  |  |  |  |  |
| Explore and discuss repeated addition and group counting:    *counting in twos, fives, tens  count children in the line, 2, 4, 6, 8 ....* |  |  |  |  |  |  |
| Develop an understanding of addition by combining or partitioning sets |  |  |  |  |  |  |
| Explore, develop and apply the commutative, associative and zero properties of addition |  |  |  |  |  |  |
| Develop and recall mental strategies for addition facts within 20:    *discuss different strategies for combining numbers:  9 + 8 = 10 + 8 - 1 or 8 + 8 + 1 or 9 + 9 - 1  memorise and record addition facts using strategies* |  |  |  |  |  |  |
| Construct number sentences and number stories; solve problems involving addition within 99 |  |  |  |  |  |  |
| Add numbers without and with renaming within 99:    *estimate simple sums within 99  use mental calculations  record using notation boards, number lines, number  sentences and algorithm  emphasise addition of 10 to multiples of 10, to other numbers (36 + 10)  add multiples of 10 to numbers (45 + 20)* |  |  |  |  |  |  |
| Explore and discuss repeated addition and group counting:    *in practical situations, e.g. buying a number of identical articles:  10 sweets in a packet; how many in 5 packets?  10 + 10 + 10 + 10 + 10 = 50 sweets* |  |  |  |  |  |  |