### The Multiplication and Division Facts Learning Journey



#### 1. Counting

#### a. Direct Modelling:

• Begin to develop conceptual understanding using representations, models and images.

#### b. Concrete Counting:

- Counting unitary (one-by-one) e.g. 1, 2, 3, 4, 5, 6, 7 = 1 group 1, 2, 3, 4, 5, 6, 7 = 2 groups
- Begin to group
- Counting on e.g. 1, 2, 3, 4, 5, 6, 7 = 1 group 8, 9, 10, 11, 12, 13, 14 = 2 groups
- Then, 7 = 1 group, 8, 9, 10, 11, 12, 13, 14

## c. Counting Rhythmically:

- Kinesthetic/ pictorial approach.
- Opportunities to count rhythmically- begin using a hundred square, where the numbers being counted are highlighted.
- Use hundred square without highlighted numbers.
- Take hundred square away- starting at zero
- Count back to zero
- Count on from different starting points within sequence, up to 12 x 12.
- Count backwards from different starting points within the sequence.

# 2. Explore Patterns (Concrete-pictorial-abstract approach)

- Fact relationship cards
- Build on understanding of number bonds (addition and subtraction facts)
- Crossing the next 10.
- Doubling halving (2, 4, 8 x tables 3, 6, 12 etc)
- Patterns within hundred square (e.g. 9's diagonal/ +ten one)
- Recognising patterns of ones and where the tens change.
- Identify missing numbers within a sequence

## 3. Application of Multiplication and Division Facts

- Fact relationship cards used as flashcards
- Dice (1-12)
- Online games
- Triangular facts (particularly for the 'gold' test)
- Chanting
- Bing Bong Zong
- Playing cards