

**Dimension:** Number & Algebra

**Focus:** Multiplication & Division

**Length of Unit:** 14 sessions

**Victorian Curriculum:**

**Level 4**

Recall multiplication facts up to  $10 \times 10$  and related division facts

Develop efficient mental and written strategies and use appropriate digital technologies for multiplication and for division where there is no remainder

**Level 5**

Identify and describe factors and multiples of whole numbers and use them to solve problems

Solve problems involving multiplication of large numbers by one- or two-digit numbers using efficient mental, written strategies and appropriate digital technologies

Solve problems involving division by a one digit number, including those that result in a remainder

**Level 6**

Select and apply efficient mental and written strategies and appropriate digital technologies to solve problems involving all four operations with whole numbers and make estimates for these computations

**Level 7**

Investigate index notation and represent whole numbers as products of powers of prime numbers

Investigate and use square roots of perfect square numbers

Apply the associative, commutative and distributive laws to aid mental and written computation and make estimates for these computations

**Vocabulary Development:**

Times, multiply, divide, division, multiplication, dividend, divisor, quotient, product, groups of, equal, times tables, number facts, turn-arounds, split up, factor, multiple, prime, composite,

**Establishing Prior Knowledge**

**Dimension:** All**Focus:** Problem Solving**Length of Unit:****10 Lessons****Victorian Curriculum Learning Focus Statement:**

Problem solving is the ability of students to make choices, interpret, formulate, model and investigate problem situations, select and use technological functions and communicate solutions effectively. Students pose and solve problems when they:

- use mathematics to represent unfamiliar or meaningful situations
- design investigations and plan their approaches
- apply their existing strategies to seek solutions
- verify that their answers are reasonable.

**Vocabulary Development:**

Zone of confusion, strategy, apply, problem, solution, steps, working backwards, diagram, methodical, table, system, pattern, possible, impossible, logic, limits, efficient, solve, trial and error, guess and check, reasonable, estimate, predict, test,

**Teaching and Learning Sequence**