

Times Tables

Help your students/child have a good understanding of times tables without rote learning.

Summary

Times Tables! Who remembers standing in front of the class having times tables races or rote learning (repeatedly saying) 1×4 is 4, 2×4 is 8, 3×4 is 12?

Research has shown that rote learning is not the best approach to learn the times tables. Learning times tables by rote may mean they can accurately recall times tables but it also may mean they don't understand how they got the answer or are able to apply this knowledge to other maths problems.

Students need a good understanding of number patterns and place value to help them use the times tables to mentally solve 2 and 3 digit multiplication problems in later years.

The Australian Curriculum helps teachers understand the progression which students need to learn their times tables.

Using strategies such as arrays, word problems, skip counting, repeated addition, number lines and drawing diagrams help students have a good understanding of their times tables and use this knowledge to solve more difficult multiplication equations.

In this Times Tables unit I explain ways to help your student or child learn each of the times tables in an ordered approach.

Australian Curriculum

Foundation

Connect number names, numerals and quantities, including zero, initially up to 10 and then beyond ([ACMNA002 - Scootle](#))

Sort and classify familiar objects and explain the basis for these classifications. Copy, continue and create patterns with objects and drawings ([ACMNA005 - Scootle](#))

Level One

Develop confidence with number sequences to and from 100 by ones from any starting [point](#). Skip count by twos, fives and tens starting from zero ([ACMNA012 - Scootle](#))

Count collections to 100 by [partitioning](#) numbers using [place value](#) ([ACMNA014 - Scootle](#))

Investigate and describe number patterns formed by skip-counting and patterns with objects ([ACMNA018 - Scootle](#))

Level Two

Investigate number sequences, initially those increasing and decreasing by twos, threes, fives and tens from any starting [point](#), then moving to other sequences ([ACMNA026 - Scootle](#))

Group, partition and rearrange collections up to 1000 in hundreds, tens and ones to facilitate more efficient counting ([ACMNA028 - Scootle](#))

Describe patterns with numbers and identify missing elements ([ACMNA035 - Scootle](#))

Level Three

Apply [place value](#) to partition, rearrange and regroup numbers to at least 10 000 to assist calculations and solve problems ([ACMNA053 - Scootle](#))

Recall multiplication facts of two, three, five and ten and related division facts([ACMNA056 - Scootle](#))

Level Four

Apply **place value** to partition, rearrange and regroup numbers to at least tens of thousands to assist calculations and solve problems ([ACMNA073 - Scootle](#))

Investigate number sequences involving **multiples** of 3, 4, 6, 7, 8, and 9 ([ACMNA074 - Scootle](#))

Recall multiplication facts up to 10×10 and related division facts ([ACMNA075 - Scootle](#))

Level Five

Identify and describe factors and **multiples** of whole numbers and use them to solve problems ([ACMNA098 - Scootle](#))

Solve problems involving multiplication of large numbers by one- or two-digit numbers using efficient mental, written strategies and appropriate digital technologies ([ACMNA100 - Scootle](#))

Lesson Progression

The attached Times Tables Unit in the resources section outlines the following:

- A note to parents/teachers on the theory behind learning the times tables
- Foundation to Level Two Australian Curriculum outcomes relevant to times tables
- Understanding the Australian Curriculum outcomes
- Level Three to Level Five Australian Curriculum outcomes relevant to times tables
- Two Times Tables - skip counting, number lines, repeated addition
- Two Times Tables - array, commutative law of multiplication
- Two Times Tables - doubles, even numbers
- Five Times Tables - skip counting, number lines, repeated addition, arrays, number patterns
- Multiplication Strategies Mat - example
- Ten Times Tables - 0 times tables, 1 times tables
- Ten Times Tables - skip counting, place value
- Revise
- Known times tables facts
- Three Times Tables - skip counting, number lines, arrays, repeated addition, word problems
- Four Times Tables - double doubles
- Six Times Tables - repeated addition using the five times tables
- Nine Times Tables - repeated addition using the ten times tables
- Known times tables facts
- 7×7 , 8×8 , 7×8 (8×7)

Assessment

Using a blank 'multiplication strategies mat' write a times table problem in the middle and assess which strategies students use confidently and are able to explain their working out.

Resources

Times Tables PDF link