

# 052 Multo: Better than Bingo!

*Connecting with the Australian Curriculum: Mathematics*

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Proficiency Strands:	Understanding, Fluency, Problem solving, Reasoning
General Capabilities:	Literacy, Numeracy, ICT Capability, Critical and creative thinking
Content Strands:	Number and algebra, Statistics and probability

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## Number and algebra

- Year 4      Recall multiplication facts up to  $10 \times 10$  and related division facts (ACMNA075)
- Develop efficient mental and written strategies and use appropriate digital technologies for multiplication and for division where there is no remainder (ACMNA076)
- Year 5      Identify and describe factors and multiples of whole numbers and use them to solve problems (ACMNA098)
- Use efficient mental and written strategies and apply appropriate digital technologies to solve problems (ACMNA291)
- Year 6      Make connections between equivalent fractions, decimals and percentages (ACMNA131)
- Year 7      Apply the associative, commutative and distributive laws to aid mental and written computation (ACMNA151)

## Statistics and probability

- Year 4      Describe possible everyday events and order their chances of occurring (ACMSP092)
- Year 6      Describe probabilities using fractions, decimals and percentages (ACMSP144)
- Conduct chance experiments with both small and large numbers of trials using appropriate digital technologies (ACMSP145)
- Compare observed frequencies across experiments with expected frequencies (ACMSP146)
- Year 7      Construct sample spaces for single-step experiments with equally likely outcomes (ACMSP167)
- Assign probabilities to the outcomes of events and determine probabilities for events (ACMSP168)
- Describe and interpret data displays using median, mean and range (ACMSP172)
- Year 9      List all outcomes for two-step chance experiments, both with and without replacement using tree diagrams or arrays. Assign probabilities to outcomes and determine probabilities for events (ACMSP225)
- Years 11/12: Interpret commonly used probability statements, including 'possible', 'probable', 'likely', 'certain'(ACMEM148)

Describe ways of expressing probabilities formally using fractions, decimals, ratios, and percentages. (ACMEM149)

Perform simulations of experiments using technology (ACMEM150)

Recognise that the repetition of chance events is likely to produce different results (ACMEM151)

Identify relative frequency as probability (ACMEM152)

Construct a sample space for an experiment (ACMEM154)

Use a sample space to determine the probability of outcomes for an experiment (ACMEM155)

Determine the probabilities associated with simple games (ACMEM157)

Review probability as a measure of 'the likelihood of occurrence' of an event (ACMMM052)

Review the probability scale:  $0 \leq P(A) \leq 1$  for each event A, with  $P(A) = 0$  if A is an impossibility and  $P(A) = 1$  if A is a certainty (ACMMM053)

Use relative frequencies obtained from data as point estimates of probabilities. (ACMMM055)