

# NRICH F-6 curriculum mapping document

## Mapping to the Australian Curriculum - Statistics and Probability

Many Australian teachers access the problems, games and investigations from the website [www.nrich.maths.org](http://www.nrich.maths.org) to use with their students either as launch activities or as longer investigations during mathematics lessons. This resource maps the NRICH tasks to the Australian Curriculum descriptors (ACARA) for Statistics and Probability. The NRICH [primary site](#) provides links to other countries' curriculum documents (e.g. England's curriculum) and these have been a guide for the production of this resource. In this resource, the tasks have been linked to the Australian Curriculum content descriptors only. All of these tasks potentially link to the proficiencies of understanding, fluency, problem solving and reasoning - however, it is more how the individual teacher utilises the tasks, and how the students interact with them, that determine the links to these processes.

This resource maps tasks to the Statistics and Probability strand. Two other resources have been developed that link to [Number and Algebra](#) and [Measurement and Geometry](#). The links here are not an exhaustive list of the many ways the tasks can be utilised or connected to concepts across the curriculum. The tasks have been linked to the content descriptor they mainly focus on, although connections can be made to other areas as well. As more tasks are added to the NRICH site this document will be updated.

NRICH also have a [Primary Live Problems](#) site where schools and their students can access problems and then send their solutions to NRICH who will publish a selection of them.

## References

Australian Curriculum, Assessment and Reporting Authority (ACARA) mathematics curriculum content descriptors are all © Australian Curriculum, Assessment and Reporting Authority accessed via <https://www.australiancurriculum.edu.au/f-10-curriculum/mathematics>

NRICH website [www.nrich.maths.org](http://www.nrich.maths.org) all tasks © University of Cambridge

Chance			
Year 1 content descriptor	Year 2 content descriptor	Year 3 content descriptor	
Identify outcomes of familiar events involving chance and describe them using everyday language such as 'will happen', 'won't happen' or 'might happen' (ACMSP024)	Identify practical activities and everyday events that involve chance. Describe outcomes as 'likely' or 'unlikely' and identify some events as 'certain' or 'impossible' (ACMSP047)	Conduct chance experiments, identify and describe possible outcomes and recognise variation in results (ACMSP067)  <a href="#">Stop or Dare</a> <a href="#">How Random!</a> <a href="#">Three Spinners</a> <a href="#">You Never Get a Six</a> <a href="#">Mixed-up Socks</a>	
Year 4 content descriptors			
Describe possible everyday events and order their chances of occurring (ACMSP092)	Identify everyday events where one cannot happen if the other happens (ACMSP093)	Identify events where the chance of one will not be affected by the occurrence of the other (ACMSP094)  <a href="#">You Never Get a Six</a>	



Chance			
<b>Year 5 content descriptors</b>			
List outcomes of chance experiments involving equally likely outcomes and represent probabilities of those outcomes using fractions (ACMSP116)  <a href="#">Game of PIG - Sixes</a>	Recognise that probabilities range from 0 to 1 (ACMSP117)		
<b>Year 6 content descriptors</b>			
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)	

Data representation and interpretation			
Foundation content descriptor	Year 1 content descriptors		
<p>Answer yes/no questions to collect information and make simple inferences (ACMSP011)</p> <p><a href="#">In the Playground</a></p>	<p>Choose simple questions and gather responses and make simple inferences (ACMSP262)</p> <p><a href="#">Our Sports</a> <a href="#">Real Statistics</a> <a href="#">In the Playground</a></p>	<p>Represent data with objects and drawings where one object or drawing represents one data value. Describe the displays (ACMSP263)</p> <p><a href="#">Our Sports</a> <a href="#">Sticky Data</a> <a href="#">Ladybird Count</a> <a href="#">The Hair Colour Game</a> <a href="#">In the Playground</a></p>	



Data representation and interpretation			
Year 2 content descriptors			
Identify a question of interest based on one categorical variable. Gather data relevant to the question(ACMSP048)  <a href="#">Our Sports</a> <a href="#">Real Statistics</a>	Collect, check and classify data (ACMSP049)  <a href="#">Real Statistics</a> <a href="#">What Shape and Colour?</a> <a href="#">Plants</a> <a href="#">The Hair Colour Game</a>	Create displays of data using lists, table and picture graphs and interpret them (ACMSP050)  <a href="#">Our Sports</a> <a href="#">The Car That Passes</a> <a href="#">It's a Tie</a> <a href="#">Ladybird Count</a> <a href="#">Mixed-up Socks</a>	

<b>Data representation and interpretation</b>			
<b>Year 3 content descriptors</b>			
<p>Identify questions or issues for categorical variables. Identify data sources and plan methods of data collection and recording (ACMSP068)</p> <p><a href="#">Real Statistics</a> <a href="#">In the Playground</a></p>	<p>Collect data, organise into categories and create displays using lists, tables, picture graphs and simple column graphs, with and without the use of digital technologies (ACMSP069)</p> <p><a href="#">How Big Are Classes 5, 6, and 7?</a> <a href="#">Our Sports</a> <a href="#">Going for Gold</a> <a href="#">Real Statistics</a> <a href="#">In the Playground</a></p>	<p>Interpret and compare data displays (ACMSP070)</p> <p><a href="#">How Big Are Classes 5, 6, and 7?</a> <a href="#">Class 5's Names</a> <a href="#">Going for Gold</a> <a href="#">The Domesday Project</a> <a href="#">If the World Were a Village</a> <a href="#">Now and Then</a> <a href="#">Plants</a> <a href="#">The Hair Colour Game</a> <a href="#">Mixed-up Socks</a></p>	
<b>Year 4 content descriptors</b>			
<p>Select and trial methods for data collection, including survey questions and recording sheets (ACMSP095)</p> <p><a href="#">Our Sports</a> <a href="#">The Car That Passes</a> <a href="#">Real Statistics</a></p>	<p>Construct suitable data displays, with and without the use of digital technologies, from given or collected data. Include tables, column graphs and picture graphs where one picture can represent many data values (ACMSP096)</p> <p><a href="#">The Car That Passes</a> <a href="#">It's a Tie</a></p>	<p>Evaluate the effectiveness of different displays in illustrating data features including variability (ACMSP097)</p> <p><a href="#">Going for Gold</a> <a href="#">The Car That Passes</a> <a href="#">If the World Were a Village</a></p>	



<b>Data representation and interpretation</b>			
<b>Year 5 content descriptors</b>			
<p>Pose questions and collect categorical or numerical data by observation or survey (ACMSP118)</p> <p><a href="#">Real Statistics</a> <a href="#">In the Playground</a></p>	<p>Construct displays, including column graphs, dot plots and tables, appropriate for data type, with and without the use of digital technologies (ACMSP119)</p> <p><a href="#">Graphing Number Patterns</a> <a href="#">The Car That Passes</a> <a href="#">It's a Tie</a> <a href="#">In the Playground</a></p>	<p>Describe and interpret different data sets in context (ACMSP120)</p> <p><a href="#">Graphing Number Patterns</a> <a href="#">Class 5's Names</a> <a href="#">The Domesday Project</a> <a href="#">If the World Were a Village</a> <a href="#">Now and Then</a> <a href="#">Plants</a></p>	
<b>Year 6 content descriptors</b>			
<p>Interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables (ACMSP147)</p> <p><a href="#">Graphing Number Patterns</a> <a href="#">Going for Gold</a> <a href="#">The Domesday Project</a> <a href="#">If the World Were a Village</a> <a href="#">Now and Then</a> <a href="#">What Shape and Colour?</a> <a href="#">Carroll Diagrams</a> <a href="#">Plants</a></p>	<p>Interpret secondary data presented in digital media and elsewhere (ACMSP148)</p> <p><a href="#">Going for Gold</a> <a href="#">The Domesday Project</a> <a href="#">If the World Were a Village</a></p>		