

# Nrich K-6 curriculum mapping document

## Mapping to the 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 NSW mathematics K-6 syllabus outcomes and descriptors 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 NSW syllabus *content* outcomes only. All of these tasks potentially link to the working mathematically outcomes of communicating, problem solving and reasoning (based on the four proficiencies from the Australian Curriculum) however, it is more how the individual teacher utilises the tasks that determine their link to working mathematically. This resource maps task 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, other 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 section of them.

## References

Board of Studies NSW. (2012) Mathematics K-10 syllabus. Retrieved from <https://syllabus.nesa.nsw.edu.au/download>  
Nrich website [www.nrich.maths.org](http://www.nrich.maths.org) all tasks © University of Cambridge

Data			
Early Stage 1 MAe-17SP	Stage 1 MA1-17SP	Stage 2 MA2-18SP	Stage 3 MA3-18SP
<p>Answer yes/no questions to collect information (ACMSP011)</p> <p><a href="#">In the playground</a></p>	<p>Choose simple questions and gather responses (ACMSP262)</p> <p><a href="#">Our sports</a> <a href="#">Real statistics</a> <a href="#">In the playground</a></p>	<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>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>Organise objects into simple data displays and interpret the displays</p> <p><a href="#">Sticky data</a> <a href="#">Ladybird count</a> <a href="#">Sort the street</a> <a href="#">Button up</a> <a href="#">The hair colour game</a></p>	<p>Represent data with objects and drawings where one object or drawing represents one data value and describe the displays (ACMSP263)</p> <p><a href="#">How big are classes 5, 6, and 7?</a> <a href="#">Our sports</a> <a href="#">If the world were a village</a> <a href="#">Sticky data</a> <a href="#">Ladybird count</a> <a href="#">Sort the street</a> <a href="#">Button up</a> <a href="#">The hair colour game</a> <a href="#">In the playground</a></p>	<p>Collect data, organise it 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>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>

Data			
Early Stage 1 MAe-17SP	Stage 1 MA1-17SP	Stage 2 MA2-18SP	Stage 3 MA3-18SP
	Identify a question of interest based on one categorical variable and gather data relevant to the question (ACMSP048)  Our sports Real statistics	Interpret and compare data displays (ACMSP070)  How big are classes 5, 6, and 7? Class 5's names Going for gold The Doomsday Project If the world were a village Now and then Plants The hair colour game Mixed-up socks	Describe and interpret different data sets in context (ACMSP120)  Graphing number patterns Class 5's names The Doomsday Project If the world were a village Now and then Plants
	Collect, check and classify data (ACMSP049)  How big are classes 5, 6, and 7? Real statistics What shape and colour? Plants The hair colour game	Select and trial methods for data collection, including survey questions and recording sheets (ACMSP095)  Our sports The car that passes Real statistics	Interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables (ACMSP147)  Graphing number patterns Going for gold The Doomsday Project If the world were a village Now and then What shape and colour? Carroll diagrams Plants



Data			
Early Stage 1 MAe-17SP	Stage 1 MA1-17SP	Stage 2 MA2-18SP	Stage 3 MA3-18SP
	<p>Create displays of data using lists, tables and picture graphs and interpret them (ACMSP050)</p> <p><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></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>Interpret secondary data presented in digital media and elsewhere (ACMSP148)</p> <p><a href="#">Going for gold</a> <a href="#">The Doomsday Project</a> <a href="#">If the world were a village</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>	

Chance			
	Stage 1 MA1-18SP	Stage 2 MA2-19SP	Stage 3 MA3-19SP
	Identify outcomes of familiar events involving chance and describe them using everyday language, such as 'will happen', 'won't happen' or 'might happen' (ACMSP024)	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>	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>
	Identify practical activities and everyday events that involve chance (ACMSP047)	Describe possible everyday events and order their chances of occurring (ACMSP092)	Recognise that probabilities range from 0 to 1 (ACMSP117)
	Describe outcomes as 'likely' or 'unlikely' and identify some events as 'certain' or 'impossible' (ACMSP047)	Identify everyday events where one occurring cannot happen if the other happens (ACMSP093)	Compare observed frequencies across experiments with expected frequencies (ACMSP146)
		Identify events where the chance of one occurring will not be affected by the occurrence of the other (ACMSP094)  <a href="#">You never get a six</a>	Describe probabilities using fractions, decimals and percentages (ACMSP144)



Chance			
Stage 1 MA1-18SP		Stage 2 MA2-19SP	Stage 3 MA3-19SP
			Conduct chance experiments with both small and large numbers of trials using appropriate digital technologies (ACMSP145)