Alignment of Classroom activities on CensusAtSchool with National Standards

Following is a summary of our CensusAtSchool activities and where they fit with the National Standards.

The material at each curriculum level will be spread across two years of National Standards. Activities can be used at either year within the recommended NZC Level but we have placed them alongside the most appropriate National Standard. Words in italics under National Standards are new content for that year level.

If you think you have a resource that you would like to contribute to the CensusAtSchool website, please contact us at <u>t.meek@auckland.ac.nz</u>.

Useful links:

National Standards: <u>http://nzcurriculum.tki.org.nz/National-Standards/Mathematics-standards/The-standards</u>.

New Zealand Curriculum: <u>http://new.censusatschool.org.nz/wp-content/uploads/2012/08/new-nz-stats-</u> <u>curriculum.pdf</u>

NZMaths Illustrating the standards: <u>http://www.nzmaths.co.nz/national-standards-illustrations?parent_node</u>=

New Zealand Curriculum		National Standards		CensusAtSchool
Level		Year	National Standard in Statistics	Activities
Level 1	Statistical Investigation	After 1	In contexts that require them to solve	
	Conduct investigations using the statistical	Year at	problems or model situations, students	
	enquiry cycle:	school	will be able to:	
	 posing and answering questions; 			
	 gathering, sorting and counting, 		investigate questions by using	
	and displaying category data;		the statistical enquiry cycle (with	
	 discussing the results. 		support), gathering, displaying, and/or	
			counting category data.	
	Statistical Literacy			
	Interpret statements made by others from	After 2	In contexts that require them to solve	
	statistical investigations and probability	years	problems or model situations, students	
	activities.	at	will be able to:	
		school		
	Probability		investigate questions by using	
	Investigate situations that involve		the statistical enquiry cycle (with	
	elements of chance, acknowledging and		support), gathering, displaying, and/or	
	anticipating possible outcomes.		identifying similarities and differences in	
			category data	
			describe the likelihoods of	
			outcomes for a simple situation involving	
			chance, using everyday language.	

Level 2	Statistical Investigation	After 3	In contexts that require them to solve	
	Conduct investigations using the statistical	years	problems or model situations, students	
	enquiry cycle:	at	will be able to:	
	 posing and answering questions; 	school		
	 gathering, sorting and displaying 		investigate questions by using the	
	category and whole-number		statistical enquiry cycle (with support):	
	data;		 gather and display category 	
	 communicating findings based on 		and simple whole-number data	
	the data.		 interpret displays in context 	
	Statistical Literacy Compare statements with the features of simple data displays from statistical investigations or probability activities		<i>compare and explain</i> the likelihoods of outcomes for a simple situation involving chance.	
	undertaken by others.	After 4	In contexts that require them to solve	
		years	problems or model situations, students	
	Probability	at	will be able to:	
	Investigate simple situations that involve	school		
	elements of chance, recognising equal and		investigate questions by using the	
	different likelihoods and acknowledging		statistical enquiry cycle independently:	
	uncertainty.		 gather and display category and 	
			simple whole-number data	
			 interpret displays in context 	
			compare and explain the likelihoods of outcomes for a simple situation involving chance, <i>acknowledging</i> <i>uncertainty</i> .	

Level 3	Statistical Investigation	After 5	In contexts that require them to solve	 Posing summary
	Conduct investigations using the statistical	years	problems or model situations, students	Investigative
	enquiry cycle:	at	will be able to:	questions
	- gathering, sorting, and displaying	school		 Nosey Parker 1
	multivariate category and whole-		investigate summary and	• Nosey Parker 2
	number data and simple time-		comparison questions by using the	,
	series data to answer questions;		statistical enquiry cycle:	
	 identifying patterns and trends in 		 gather, display, and identify 	
	context, within and between data		patterns in category and whole-	
	sets;		<i>number</i> data	
	 communicating findings, using 		 interpret results in context 	
	data displays.			
			order the likelihoods of	
	Statistical literacy		outcomes for simple situations involving	
	Evaluate the effectiveness of different		chance, experimenting or listing all	
	displays in representing the findings of a		possible outcomes.	
	statistical investigation or probability			
	activity undertaken by others.	After 6	In contexts that require them to solve	 Masterpiece 1
		years	problems or model situations, students	 8 glasses per
	Probability	at	will be able to:	day
	Investigate simple situations that involve	school		 Using data cards
	elements of chance by comparing		investigate summary and comparison	•ID Cards
	experimental results with expectations		questions by using the statistical enquiry	
	from models of all the outcomes,		cycle:	
	acknowledging that samples vary.		- gather or access multivariate	
			category and whole-number	
			data	
			 sort data into categories or 	
			intervals, display it in different	
			ways, and identify patterns	
			 interpret results in context, 	
			accepting that samples vary	
			order the likelihoods of outcomes for	
			situations involving chance, considering	
			experimental results and models of all	
			possible outcomes.	

Level 4	Statistical Investigation	After 7	In contexts that require them to solve	 Masterpiece 3
	Plan and conduct investigations using the	years at	problems or model situations, students	• Rumbling
	statistical enquiry cycle:	school	will be able to:	Tummy
	- determining appropriate			• Analysis Tools
	variables and data collection		investigate summary, comparison, and	• How high can
	methods;		relationship questions by using the	vou iump?
	 gathering, sorting, and displaying 		statistical enquiry cycle:	yea jampi
	multivariate category,		- gather or access multivariate	
	measurement, and time-series		category and measurement	
	data to detect patterns,		data	
	variations, relationships, and		- sort data and <i>display it in</i>	
	trends;		multiple ways, identifying	
	 comparing distributions visually; 		patterns and variations	
	- communicating findings, using		- interpret results in context,	
	appropriate displays.		accepting that samples vary	
			and have no effect on one	
	Statistical literacy		another	
	Evaluate statements made by others			
	about the findings of statistical		order the likelihoods of	
	investigations and probability activities.		outcomes for situations involving	
			chance, checking for consistency	
	Probability		between experimental results and	
	Investigate situations that involve		models of all possible outcomes.	
	elements of chance by comparing			
	experimental distributions with	Aftor 9	In contexts that require them to solve	Masterniece 2
	experimental distributions with	Allero	In contexts that require them to solve	• Master piece Z
	expectations from models of the possible	years at	problems or model situations, students	• Speedster
	expectations from models of the possible outcomes, acknowledging variation and	years at school	problems or model situations, students will be able to:	• Speedster • The case of the
	expectations from models of the possible outcomes, acknowledging variation and independence.	years at school	problems or model situations, students will be able to:	• Speedster • The case of the missing cake
	expectations from models of the possible outcomes, acknowledging variation and independence. Use simple fractions and percentages to	years at school	problems or model situations, students will be able to: investigate summary, comparison, and	 Speedster The case of the missing cake Are you getting
	expectations from models of the possible outcomes, acknowledging variation and independence. Use simple fractions and percentages to describe probabilities.	years at school	problems or model situations, students will be able to: investigate summary, comparison, and relationship questions by using the	 Speedster The case of the missing cake Are you getting enough zz?
	expectations from models of the possible outcomes, acknowledging variation and independence. Use simple fractions and percentages to describe probabilities.	years at school	problems or model situations, students will be able to: investigate summary, comparison, and relationship questions by using the statistical enquiry cycle:	 Speedster The case of the missing cake Are you getting enough zz? Who wants to
	expectations from models of the possible outcomes, acknowledging variation and independence. Use simple fractions and percentages to describe probabilities.	years at school	problems or model situations, students will be able to: investigate summary, comparison, and relationship questions by using the statistical enquiry cycle: - gather or access multivariate	 Speedster The case of the missing cake Are you getting enough zz? Who wants to be a
	expectations from models of the possible outcomes, acknowledging variation and independence. Use simple fractions and percentages to describe probabilities.	years at school	problems or model situations, students will be able to: investigate summary, comparison, and relationship questions by using the statistical enquiry cycle: - gather or access multivariate category, measurement, and	 Speedster Speedster The case of the missing cake Are you getting enough zz? Who wants to be a millionaire?
	expectations from models of the possible outcomes, acknowledging variation and independence. Use simple fractions and percentages to describe probabilities.	years at school	problems or model situations, students will be able to: investigate summary, comparison, and relationship questions by using the statistical enquiry cycle: - gather or access multivariate category, measurement, and time-series data	 Speedster Speedster The case of the missing cake Are you getting enough zz? Who wants to be a millionaire? Scatter it
	expectations from models of the possible outcomes, acknowledging variation and independence. Use simple fractions and percentages to describe probabilities.	years at school	problems or model situations, students will be able to: investigate summary, comparison, and relationship questions by using the statistical enquiry cycle: - gather or access multivariate category, measurement, and time-series data - sort data and display it in	 Speedster Speedster The case of the missing cake Are you getting enough zz? Who wants to be a millionaire? Scatter it
	expectations from models of the possible outcomes, acknowledging variation and independence. Use simple fractions and percentages to describe probabilities.	years at school	problems or model situations, students will be able to: investigate summary, comparison, and relationship questions by using the statistical enquiry cycle: - gather or access multivariate category, measurement, and <i>time-series data</i> - sort data and display it in multiple ways, identifying	 Speedster Speedster The case of the missing cake Are you getting enough zz? Who wants to be a millionaire? Scatter it
	expectations from models of the possible outcomes, acknowledging variation and independence. Use simple fractions and percentages to describe probabilities.	years at school	problems or model situations, students will be able to: investigate summary, comparison, and relationship questions by using the statistical enquiry cycle: - gather or access multivariate category, measurement, and <i>time-series data</i> - sort data and display it in multiple ways, identifying patterns, variations,	 Speedster Speedster The case of the missing cake Are you getting enough zz? Who wants to be a millionaire? Scatter it
	expectations from models of the possible outcomes, acknowledging variation and independence. Use simple fractions and percentages to describe probabilities.	years at school	 problems or model situations, students will be able to: investigate summary, comparison, and relationship questions by using the statistical enquiry cycle: gather or access multivariate category, measurement, and time-series data sort data and display it in multiple ways, identifying patterns, variations, relationships, and trends and 	 Speedster Speedster The case of the missing cake Are you getting enough zz? Who wants to be a millionaire? Scatter it
	expectations from models of the possible outcomes, acknowledging variation and independence. Use simple fractions and percentages to describe probabilities.	years at school	 problems or model situations, students problems or model situations, students will be able to: investigate summary, comparison, and relationship questions by using the statistical enquiry cycle: gather or access multivariate category, measurement, and time-series data sort data and display it in multiple ways, identifying patterns, variations, relationships, and trends and using ideas about middle and 	 Speedster Speedster The case of the missing cake Are you getting enough zz? Who wants to be a millionaire? Scatter it
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	expectations from models of the possible outcomes, acknowledging variation and independence. Use simple fractions and percentages to describe probabilities.	years at school	 problems or model situations, students problems or model situations, students will be able to: investigate summary, comparison, and relationship questions by using the statistical enquiry cycle: gather or access multivariate category, measurement, and time-series data sort data and display it in multiple ways, identifying patterns, variations, relationships, and trends and using ideas about middle and spread where appropriate interpret results in context, identifying factors that produce 	 Speedster Speedster The case of the missing cake Are you getting enough zz? Who wants to be a millionaire? Scatter it
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