Kindy to Year 2 Level

STATISTICS & PROBABILITY

U	nderstanding	Fluency	Problem Solving	Reasoning
F	Understanding includes connecting names, numerals and quantities	Fluency includes readily counting numbers in sequences, continuing patterns	Problem Solving includes using materials to model authentic problems, sorting objects, using familiar counting sequences to solve unfamiliar problems, and discussing the reasonableness of the answer	Reasoning includes explaining comparisons of quantities, creating patterns
1	Understanding includes connecting names, numerals and quantities, and partitioning numbers in various ways	Fluency includes counting number in sequences readily forward and backwards and locating numbers on a line	Problem Solving includes using materials to model authentic problems, giving and receiving directions to unfamiliar places, and using familiar counting sequences to solve unfamiliar problems and discussing the reasonableness of the answer	Reasoning includes justifying representations of data, and explaining patterns that have been created
2	Understanding includes connecting number calculations with counting sequences, partitioning and combining numbers flexibly, identifying and describing the relationship between addition and subtraction and between multiplication and division	Fluency includes counting numbers in sequences readily and using the language of chance to describe outcomes of familiar chance events.	Problem Solving includes formulating problems from authentic situations, making models and using number sentences that represent problem situations	Reasoning includes using known facts to derive strategies for unfamiliar calculations, and creating and interpreting simple representations of data

What do I believe about statistics & probability and learning how to work with statistical & probability concepts?	Therefore, what do I need to do in my classroom? What do the children need? What equipment could I use?			
 Link to everyday life Model simple display strategies for interpreting data (T-chart, Venn diagram, Bar graph) Ask questions to collect data Extreme probabilities – what would never happen. Continuing patterns Shared language. Real life situations Integrated with other LA's. Promotes analytical language. Classifying/sequencing/summarising are processes. Conclusions are reached, using a variety of methods of representations. Children can make predictions, interpret data and draw conclusions. Students need to have a bank of strategies to draw upon and to organise their information. Students need to be able to communicate their understanding – using terminology. 	 Concrete materials – charts, post it notes, poster board Technology Visual aids showing different data collection (books, posters) Explore the language eg language cards. Games (probability): dice, cards, timer, and spinners. Explore different ways to present the same data. Time to talk. Integrate into other learning areas. Need to learn to interpret graphs. Concrete materials. Make connections to real life e.g. Melbourne Cup, footy tipping. Risk-taking: taking chances. Predicting, collecting, organising, recording and interpreting data. 			

Year 3 Level 3

STATISTICS & PROBABILITY

Und	lerstanding	Fluency	Prol	olem Solving	Reasoning	
	erstanding includes connecting	Fluency includes recalling		lem Solving includes formulating	Reasoning includes using generalising	
	per representations with number	multiplication facts and identifying		nodelling authentic situations	from number properties and results of	
	equences, partitioning and combining and describing outcomes of chance			ving planning methods of data	calculations, and creating and	
	pers flexibly, representing unit	experiments		ction and representation, and using	interpreting variations in the results of	
	ons, using appropriate language to			per properties to continue number	data collections and data displays	
	nunicate times, and identifying		patte	rns		
	onmental symmetry at do I believe about statistic	s & probability and loarning	Tho	roforo, what do I pood to do i	in my classroom? What do the	
	to work with statistical & pr			dren need? What equipment		
HOW	to work with statistical & pr	obability concepts:	Cilli	aren need: What equipment	could i dse:	
>	Shared language.		>	> Explore the language eg language cards.		
>	Real life situations		>	> Games (probability): dice, cards, timer, and spinners.		
>	Integrated with other LA's.		Explore different ways to present the same data.			
>	Promotes analytical language.		> Time to talk.			
>	Classifying/sequencing/summarising are processes.			> Integrate into other learning areas.		
>	That they understand ratios.		Need to learn to interpret graphs.			
>	Conclusions are reached, using a v	variety of methods of representations.	Concrete materials.			
>	Children can make predictions, interpret data and draw conclusions.			Make connections to real life e.g. Melbourne Cup, footy tipping.		
>	Students need to have a bank of strategies to draw upon and to		Risk-taking: taking chances.			
	organise their information.		>	Predicting, collecting, organising, recording and interpreting data.		
>	> Students need to be able to communicate their understanding – using		Understanding of computer programmes and how to use them.			
	terminology.					
>	Students need to be able to use ted	chnology to represent data.				

Year 4 Level 4

STATISTICS & PROBABILITY

Und	erstanding	Fluency	Prol	olem Solving	Reasoning	
		Fluency includes recalling multiplication tables, communicating		lem Solving includes formulating, elling and recording authentic	Reasoning includes using generalising from number properties and results of	
		sequences of simple fractions, and	situations involving operations, calculations, deriving strategies for			
	pers flexibly, extending place value	collecting and recording data		paring large numbers with each	unfamiliar multiplication and division	
to de	cimals.			, and using properties of numbers	tasks, communicating information using	
			to co	ntinue patterns	graphical displays and evaluating the appropriateness of different displays	
Wha	at do I believe about statistic	s & probability and learning	The	refore, what do I need to do	in my classroom? What do the	
how	to work with statistical & pr	obability concepts?	chile	dren need? What equipment	could I use?	
>	Shared language.		\checkmark	Explore the language, eg. Word Wa	alls.	
>	Real life situations		>	> Games (probability): dice, cards, timer, and spinners.		
>	Integrated with other Learning Areas.		>	Explore different ways to present the same data.		
>	Promotes analytical language.		> Encourage structured reflection time.			
>	Classifying/sequencing/summarising are processes.		> Integrate into other learning areas.			
>	That they understand ratios.		> Teach the students to interpret graphs.			
>	Conclusions are reached, using a variety of methods of representations.		> Provide concrete materials.			
>	Children can make predictions, interpret data and draw conclusions.		Make connections to real life e.g. Melbourne Cup, footy tipping.			
>	Students need to have a bank of strategies to draw upon and to		>	Provide a supportive environment for risk-taking.		
	organise their information.		Conduct chance experiments and interpret results.			
>	> Students need to be able to communicate their understanding – using		Provide appropriate technologies.			
	terminology.					
>	Students need to be able to use ted	chnology to represent data.				
>	Involves predicting, collecting, orga	inising, recording and interpreting				
	data.					

Year 5 Level 5

STATISTICS & PROBABILITY

Und	lerstanding	Fluency	Prol	olem Solving	Reasoning	
	erstanding includes making	Fluency includes using estimation to		lem Solving includes formulating	Reasoning includes investigating	
connections between representations of check the reasonableness of				solving authentic problems using	strategies to perform calculations	
	pers, using fractions to represent	answers to calculations.		e numbers and measurements and	efficiently, continuing patterns involving	
	abilities, comparing and ordering		creat	ing financial plans	fractions and decimals, interpreting	
	ons and decimals and representing				results of chance experiments, posing	
linem	in various ways				appropriate questions for data investigations and interpreting data sets	
Wha	t do I believe about statistics & nr	bbability and learning how to work	Ther	efore, what do I need to do in my o		
	statistical & probability concepts?			? What equipment could I use?	viasiooni. What do the official	
>	Shared language.		>	Explore the language, eg. Word Wa	alls.	
>	Real life situations		>	Games (probability): dice, cards, tir	ner, and spinners.	
>	Integrated with other Learning Area	as.	Explore different ways to present the same data.			
>	Promotes analytical language.		> Encourage structured reflection time.			
>	Classifying/sequencing/summarising are processes.			➤ Integrate into other learning areas.		
>	That they understand ratios.			> Teach the students to interpret graphs.		
>	Conclusions are reached, using a v	variety of methods of representations.	Provide concrete materials.			
>	Children can make predictions, inte	erpret data and draw conclusions.	Make connections to real life e.g. Melbourne Cup, footy tipping.			
>	Students need to have a bank of strategies to draw upon and to			Provide a supportive environment for risk-taking.		
	organise their information.		Conduct chance experiments and interpret results.			
>	> Students need to be able to communicate their understanding – using		Provide appropriate technologies.			
	terminology.					
>	Students need to be able to use ted	chnology to represent data.				
>	Involves predicting, collecting, orga	inising, recording and interpreting				
	data.					

Year 6 Level 6

STATISTICS & PROBABILITY

Understanding FI		Fluency	Prob	olem Solving	Reasoning	
	derstanding includes describing Fluency includes representing			roblem Solving includes formulating Reasoning includes explaining me		
	roperties of different sets of numbers, integers on a number line,		and solving authentic problems using strategies for performing calculati			
	using fractions and decimals to calculating simple percentages,			ons, decimals, percentages and	describing results for continuing number	
	describe probabilities, representing using brackets appropriately,			surements and interpreting	sequences, and explaining why the	
	ctions and decimals in various ways	converting between fractions and	secor	ndary data displays	actual results of chance experiments	
	d describing connections between	decimals, using operations with			may differ from expected results	
	m, and making reasonable	fractions, decimals and percentages				
	imations	and interpreting timetables				
	nat do I believe about statistics & pro			efore, what do I need to do in my o	classroom? What do the children	
	h statistical & probability concepts?			? What equipment could I use?		
>	Shared language.		>	Explore the language, eg. Word Wa	alls.	
>	Real life situations		>	Games (probability): dice, cards, timer, and spinners.		
>	Integrated with other Learning Areas.		>	Explore different ways to present the same data.		
>	Promotes analytical language.		Encourage structured reflection time.			
>	Classifying/sequencing/summarising are processes.		> Integrate into other learning areas.			
>	That they understand ratios.		> Teach the students to interpret graphs.			
>	Conclusions are reached, using a variety of methods of representations.		Provide concrete materials.			
>	Children can make predictions, interpret data and draw conclusions.		Make connections to real life e.g. Melbourne Cup, footy tipping.			
>	Students need to have a bank of strategies to draw upon and to		Provide a supportive environment for risk-taking.			
	organise their information.		Conduct chance experiments and interpret results.			
>	> Students need to be able to communicate their understanding – using		Provide appropriate technologies.			
	terminology.					
>	Students need to be able to use ted	chnology to represent data.				
>	Involves predicting, collecting, orga	nising, recording and interpreting				
	data.					