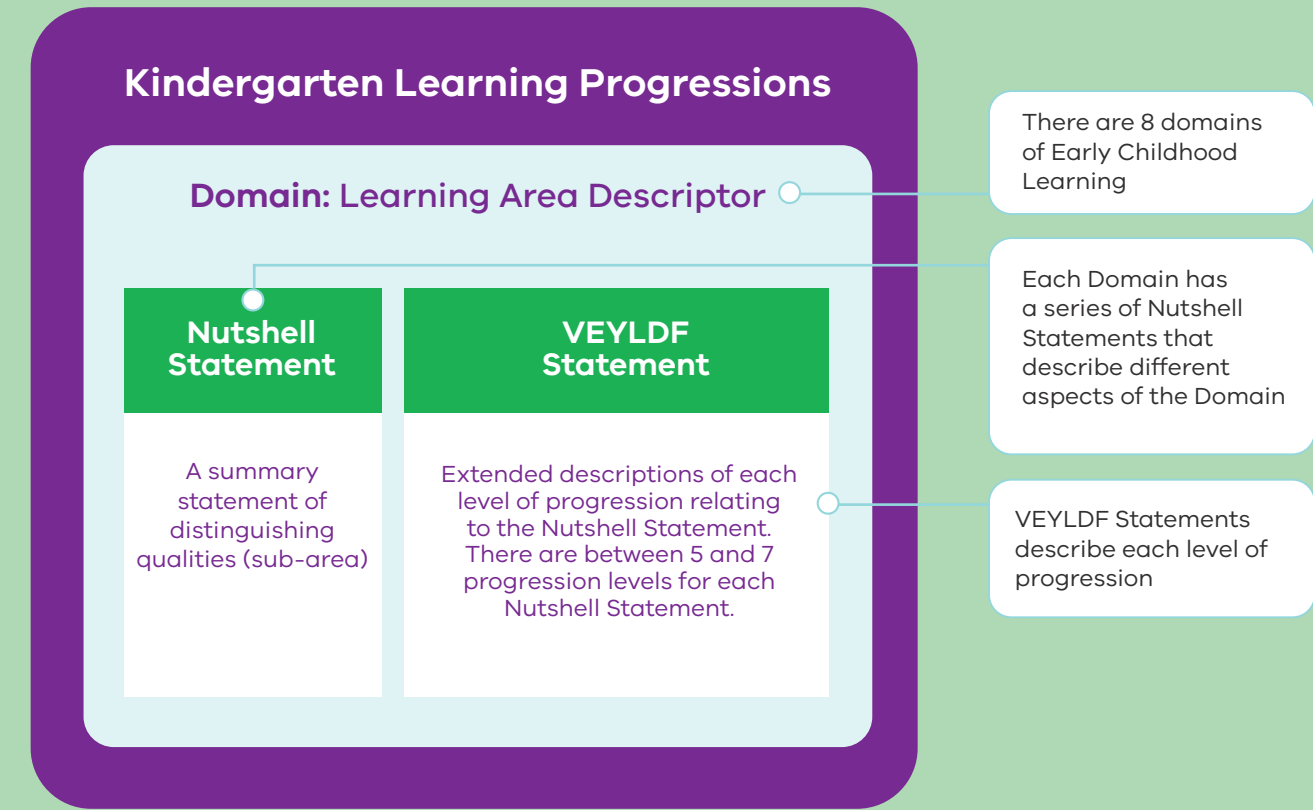


Learning Progression Domains and how they map to the VEYLDF Learning and Development Outcomes



Kindergarten Learning Progressions

Learning and communication – numeracy



 Learning and communication – numeracy							
Department of Education							
Nutshell	The child reacts to changes in their environment.	The child is starting to attend to numeracy activities and to explore object quantities and matched pairs.	The child is starting to understand key numeracy concepts and processes and learning to respond to mathematical language and name familiar shapes.	The child is starting to connect number words to concrete materials and to recount when the quantity is changed with support.	The child is learning the concepts of number and numeral, count, and order and building a vocabulary to describe chance and order.	The child is learning to classify and explain groupings of objects and to use informal units to measure length.	The child is starting to divide objects and groups of objects, manipulate numbers from simple fractions to larger numbers and to use mathematical operations to solve addition and subtraction problems.
VEYLDF Statement	At this stage, children use touch, sight, sound, taste, smell, and movement to explore their environment and engage in learning relationships. With support, children may explore objects, reacting to different shapes, sizes, and colours, and responding to changes in the number of objects in front of them. They begin to make connections between objects and a representation of these objects. For instance, they may react to representations of a familiar event or activity. They may respond to familiar sequences such as by paying attention to someone counting.	At this stage, children explore their environment, using play to investigate, imagine and explore ideas of number, quantity, and shape. They begin to show interest and respond to an object or group of objects being counted or divided into parts. They begin to think about quantities. For instance, they may take an object away from a small group of objects when asked. They may begin to use representation to record mathematical ideas and concepts. For instance, they may react to a representation of, or a collection of 1-3 objects. As they build their skills and understandings, they may start to show awareness of concepts such as ‘like’ groups. For instance, they may demonstrate this by the simple sorting of objects or by finding matching pairs. They are beginning to understand basic measurement concepts such as length and weight, for example, indicating the longer of two objects when asked.	At this stage, children begin to use language to communicate thinking about quantities and to describe attributes of objects and collections. For instance, they may name familiar shapes. Children begin to understand key numeracy concepts and processes demonstrated through behaviours such as responding to numbers, placing numbers in order, and counting up to three objects. They may begin to demonstrate an increasing understanding of number vocabulary. For instance, they may respond to use of ordinal numbers such as being ‘first’ or ‘second’. As they build their skills and understanding, they may start to apply a variety of thinking strategies such as comparing objects to choose the bigger or smaller and may use these skills to engage in activities and solve simple problems. Children begin to notice order and change (e.g. taking turns). They may begin to compare events in their social and natural worlds such as by commenting that a usual routine has changed. They may manipulate objects and experiment with cause and effect such as splitting an object into parts following a demonstration.	At this stage, children start to use words or symbols to communicate mathematical understanding. Children may follow directional terms such as ‘in front’ or ‘beside’. Children begin to sort, categorise, order, and compare collections and events and attributes of objects and materials in their social and natural worlds. For instance, they may sort objects into like groups. Children start to use number words to represent quantity, descriptive words such as ‘more’ or ‘less’ to explain change in quantity. They may indicate the total of a representation or a collection of one to three objects without counting and may recount to find the total when objects have been removed from a group of objects. As they build on their skills and understandings, they begin to demonstrate key numeracy concepts such as duration by using words to indicate an understanding of time (e.g. that some activities or routines take longer than others). They are beginning to use objects such as blocks or counters to organise, record and communicate simple mathematical ideas and concepts and use symbols in play to represent and make meaning. They may use representation (e.g. drawings, images, objects) to organise, record and communicate mathematical ideas and concepts.	At this stage, children demonstrate an increasing understanding of measurement, space and number using language to describe attributes and compare the size and shape of familiar objects and describe position and movement in their own environment. They actively create and use representation to organise and sequence basic mathematical concepts. For instance, they may engage with patterns, measuring, counting, and reasoning. They use counting to respond to questions about ‘how many’ for larger collections. Children are starting to notice order and may demonstrate this by continuing an alternating pattern, describing order of events using first, second and third. They make predictions and generalisations about their daily activities, aspects of the natural world and environments, using patterns they generate or identify and communicate these using appropriate mathematical language and symbols. For instance, they are beginning to understand concepts of ‘chance’ (e.g. the chance of an event occurring). As they build their skills and understandings, they begin to draw on memory of a sequence to complete a task.	At this stage, children are starting to engage with mathematical concepts, reasoning, and procedures, demonstrated by sorting objects into different groups and explaining their reasoning, and by asserting that the quantity of a group of objects does not change when they are rearranged. They use mathematical language to communicate thinking about quantities (e.g. bigger and smaller) and to describe attributes of objects and collections, and to explain mathematical ideas such as comparing sizes. They may use directional terms (e.g. behind, in front, next to) to instruct someone to locate an object or person. As they build their skills and understandings, they may notice and predict the patterns of regular routines and the passing of time. For instance, they may use the language of time and explain the sharing of objects (e.g. explaining children have six blocks each).	At this stage, children begin to recognise patterns and relationships and the connections between them. For instance, they create and/or explain a pattern comprising different objects, shapes, drawings, sounds or movements. They can use a range of strategies to add and subtract and explain their selected strategy. They use language to communicate thinking about quantities such as by sequencing numerals forwards and backwards from 0-20 and above. They may use measurement to accurately compare the size and shape of objects. Children may be starting to use mathematical terms and the names of fractions to describe the division of an object or group of objects. They draw on a range of strategies to make meaning from mathematical information. Children create and use representation to organise, record and communicate mathematical ideas and concepts. For instance, they can interpret meaning from a series of steps presented as symbols or images (e.g. follow visual instructions to build a simple model). As they build on their skills and understandings, they make predictions and generalisations about their daily activities, aspects of the natural world and environments, using patterns they generate or identify and communicate these using mathematical language and symbols. For instance, they draw on their understanding of patterns to explain the sequence of a pattern or predict an outcome or the chance of an event occurring.