

Kindergarten Emergent Literacy Continuum: Numeracy

Developmental aspects	Emerging With direct support...	Developing With guided support...	Applying With minimal support...	Extending
The Child	With direct support and teacher modeling, may participate in and may attempt to make sense of mathematical experiences.	With guided support, demonstrates a willingness to explore mathematical ideas while participating in problem solving experiences. Is beginning to show an awareness of number, space and time used in everyday life.	With minimal support, demonstrates interest in and willingness to explore mathematical ideas while purposefully participating in problem solving experiences. Communicates an awareness of how number, space, and time are used in everyday life.	Shows interest and curiosity while purposefully exploring mathematical problem solving experiences. Perseveres. Makes and explains connections to number, space and time as used in everyday life.
Dispositions				
Developing dispositions—attending, participating; showing interest, curiosity, engagement, perseverance	With direct support, may attend to and may participate in some familiar mathematical problem solving situations.	With guided support, shows interest in and participates in familiar mathematical problem solving situations.	With minimal support, purposefully engages in problem solving, and makes some attempt to solve familiar problem solving situations.	With confidence, curiosity, perseverance uses a range of strategies to make sense of familiar and new situations.
Processes				
Communicating using math vocabulary	With direct support, may imitate, copy, repeat a limited math vocabulary.	With guided support, uses and understands basic math vocabulary.	With minimal support, uses and understands a wide math vocabulary.	Uses and understands an extensive math vocabulary including comparative language.
Explaining thinking, using metacognition, and making connections	With direct support, may describe thinking which may or may not be related to the task at hand.	With guided support, is beginning to explain thinking. May need prompts.	With minimal support, makes connections and explains some aspects of thinking.	Explains thinking independently and in detail; makes personal connections.
Representing by building, drawing, or acting out	With direct support, may use materials, pictures, drawings or acting out to represent mathematical ideas.	With guided support, uses materials, pictures, drawings or acting out to represent mathematical ideas.	With minimal support, uses appropriate materials, pictures, drawings or acting out to represent mathematical ideas.	Uses materials, pictures, drawings or acting out to effectively represent mathematical ideas.
Understanding Shape and Space				
Matching and sorting	With direct support, sorts and classifies as directed, using an obvious attribute.	With guided support, sorts and classifies using an obvious attribute.	With minimal support, recognizes and describes similarities and differences in order to sort and classify.	Sorts mixed materials on the basis of different attributes; resorts; describes classifications.
Comparing and ordering	With direct support, may compare and order materials on the basis of, e.g., length.	With guided support, compares and orders materials on the basis of, e.g., size.	With minimal support, compares and orders materials on the basis of, e.g., size and shape.	Compares objects, describes differences, orders/sequences, e.g., day plan.
Constructing 3D models of everyday objects	With direct support, uses building materials, and may name the representation.	With guided support, builds and connects the representation to a specific object (e.g., this is a bridge)	With minimal support, builds a somewhat recognizable structure, and describes the representation using simple language.	Builds representations with key features and details, and describes using comparative language.
Understanding Pattern				
Identifying, copying, extending, and creating patterns	With direct support, may identify and copy patterns with concrete materials, music, action, and/or language patterns.	With guided support, identifies, copies and extends a given simple repeating pattern, and may create patterns intentionally.	With minimal support, identifies, copies, extends and creates a simple repeating pattern. Beginning to recognize a pattern core or stem.	Identifies, copies, extends and creates patterns of increasing complexity. Describes connections between patterns and recreates patterns in different ways.
Seeing and describing patterns in our world	With direct support, may identify a repeating pattern in our world.	With guided support, identifies a repeating pattern in our world.	With minimal support, identifies and describes a repeating pattern in our world.	Spontaneously identifies and describes repeating patterns in our world.
Understanding Number				
Rote counting	With direct support, may join in to a choral count.	With guided support, rote counts with some consistency.	With minimal support, rote counts with consistency.	Rote counts extensively, with fluency and consistency.
Quantifying	With direct support, may count small quantities and may recognize some dot patterns.	With guided support, counts quantities (e.g., to 6 or 7) and recognizes some dot patterns.	With minimal support, counts quantities (e.g., to 10) and recognizes dot patterns, (e.g., dice).	Consistently and accurately counts quantities to 10 (min.) and recognizes number patterns (e.g., dice, ten frames).
Comparing quantities	With direct support, may show which quantity is more or less than another, or the same.	With guided support, matches materials to compare quantities. May use terms more, less, or same.	With minimal support, counts or matches quantities to determine more, less or same.	Recognizes, explains, and models which quantity is more, less, or the same as another.
Matching numerals and sets	With direct support, may recognize/read some numerals and may match numerals and sets.	With guided support, recognizes/reads numerals, and matches numerals and sets with some consistency.	With minimal support, recognizes/reads numerals and matches numerals and sets to 10.	With ease and consistency, works with numerals and sets to 10 and beyond.
Representing numbers	With direct support, may represent number (e.g., by copying the model).	With guided support, represents number (e.g., shows requested number of objects).	With minimal support, uses actions, materials, pictures, words to show how many.	Represents numbers confidently, and in a variety of ways. (e.g., words, pictures, symbols, materials...)
Connecting number to everyday situations	With direct support, may recognize the use of number in everyday situations.	With guided support, connects number to everyday situations. (e.g. birthdays, time, temperature, etc.)	With minimal support, connects number to everyday situations. (e.g. attendance)	Spontaneously connects number to everyday situations.
The Support/Scaffolding*	The Model: showing, instructing, explaining, directing, making explicit, demonstrating, giving examples	The Coach: structuring, sequencing, focusing, cueing, guiding, organizing, supporting	The Advisor: suggesting, reminding, prompting, monitoring, asking for elaboration	The Mentor: extending, stretching, wondering aloud, exploring, “what if-ing”
*a variety of supports (teachers, peers, environmental, etc.) can be provided at any stage of development				