

Cognitive

Early Object Use

- 3-6 mo. Focus on action performed by objects (banging, shaking)
- 6-9 mo. Begins to explore characteristics of objects
Range of schemes expands (ex. pulling, turning, poking, tearing)
- 8-9 mo. Begins to combine objects in relational play (ex. objects in a container)
- 9-12 mo. Begins to see the relation between complex actions and consequences (opening doors, putting on lids)
Differential use of schemes according to the toy played with, functional use of toys (ex. pushes cars, throws ball)
- 12 mo. Acts on objects with a variety of schemes
- 12-15 mo. Links schemes in simple combinations (puts person in car and pushes car)
- 24-36 mo. Links multischeme combinations into a meaningful sequence (puts paste on toothbrush, puts cap on tube, brushes baby's teeth)
- 36-42 mo. Links schemes into complex script

Adapted from Clark, Morgan & Wilson-Vlotman, 1984, Kusmirek et al 1986

Symbolic and Representational Skills

- 12-16 mo. Simple pretend play directed toward self (eating, sleeping)
- 12-18 mo. Can focus pretend play on animate and inanimate objects and others
Combines simple schemes in acting out familiar activity
- 18-24 mo. Increased use of nonrealistic objects in pretending (similar to real)
Can have inanimate objects perform actions (doll washes self)
- 24-36 mo. Can use more abstract representation of object in play
Uses multischeme combinations (feed doll with bottle, pat it on the back, put it to bed)
- 36-48 mo. Plans out pretend situations in advance, organizing who and what are needed for role-play
Events in lay are sequenced into scenario that tells a story
- 36-42 mo. Can use imaginary objects in play
Acts out sequences with miniature dolls (in house, garage, airport, etc.)
- 42 mo. Can make dolls carry out several activities or roles
Creates imaginary characters
Can direct actions of two dolls, making them interact within two roles
- 60 mo. Organizes other children and props for role-play
Can direct actions of three dolls, making them interact
- 72 mo. Can direct dolls, where each doll plays more than one role (father and doctor, daughter and patient)

Adapted from Fewell, 1983; Nicholich, 1977; Watson, 1981; Watson & Fischer, 1977; Westby, 1980

Imitation Skills

4-8 mo.	Imitates vocalizations and actions that are part of his or her repertoire
6-9 mo.	Imitates actions he or she can see performed that are in his or her repertoire
8-12 mo.	Imitates sounds and gestures not part of his or her repertoire
9-12 mo.	Imitates unseen patterns composed of familiar actions
12-15 mo.	Imitates novel movements
12-18 mo.	Immediate imitation of a model
15-18 mo.	Imitates drawing of a stroke
18-24 mo.	Recognizes ways to activate toys in imitation of adult Deferred imitation
21-24 mo.	Varies own imitation creatively from that of model
27-30 mo.	Imitates drawing of a face
36-60 mo.	Demonstrates increasingly complex role imitation
48-60 mo.	Imitates scenes from different aspects of life; pieces together into new script

Adapted from Clark, Morgan & Wilson Vlotman, 1984; Cohen & Gross, 1979; Kusmierek et al, 1986

Problem Solving Skills

6-9 mo.	Finds object after watching it disappear Uses movement as a means to attain an end Anticipates movement of objects in space Attends to environmental consequences of actions Repeats actions in order to repeat consequences
9-12 mo.	Demonstrates tool use after demonstration Uses goal-directed behavior Performs an action in order to produce a result
12-15 mo.	Uses an adult to achieve a goal Attempts to activate simple mechanisms Rotates and examines three-dimensional aspects of an object Uses nonsystematic trial and error problem solving
18-21 mo.	Attends to shapes of things and uses appropriately Uses some foresight before acting Uses a tool to obtain a desired object Invents means to attain a goal through thought processes rather than just trial and error Operates a mechanical toy Can foresee effects or infer causes
21-24 mo.	Recognizes operations of many mechanisms Matches configurations, such as circle, square, triangle Manipulates objects into small openings
24-27 mo.	Discriminates sizes

- 24-30 mo. Can build with blocks horizontally and vertically
- 27-30 mo. Relates one experience to another, using logic and knowledge of previous experiences
Can plan actions in his or her mind without acting them out
Can relate one experience to another using “if...then” logic
- 36-48 mo. Can build vertical block structure requiring balance and coordination (nine cubes)
Can put graduated sizes in order
Uses representational thinking in constructions
- 48-60 mo. Can construct complex structures with vertical, horizontal and symmetrical aspects
Can integrate spatial, cause and effect, and representational thinking into problem solving

Adapted from Clark et al, 1984; Cohen & Gross, 1979; Kusmierek et al, 1986

Discrimination/Classification Skills

- 2-6 mo. Growing sense of difference between self and mother and mothers and others
- 6-9 mo. Differentiates primary caregiver from others
- 9-12 mo. Combines related objects
- 15-18 mo. Begins to spontaneously cluster objects that share physical or functional similarities
Matches objects with relational parts (round lid on tea pot)
- 16-19 mo. Discriminates circle and square on form board
- 24-27 mo. Matches objects by color, shape, and size
Recognizes part/whole relationships (can identify parts and the objects with which they go)
Discriminates size (can nest four boxes)
- 24-36 mo. Discriminates circle, square and triangle
Matches object to picture of the object
Matches picture of object to another picture of the object
- 30-33 mo. Matches objects that have the same function (comb and brush)
- 36-48 mo. Can sort by one criterion (shape or color) without getting confused
- 48-60 mo. Can sort objects by size (large, medium, small)
Can sort a group of objects in several different ways
Can classify objects into categories (toys, food, animals)
Matches or identifies basic symbols
Identifies different coins
Identifies left and right
Can put together complex puzzle
Can build elaborate symmetrical or asymmetrical block structures
- 60-72 mo. Can identify objects that do not belong in a group
Can identify abstract characteristics (living as opposed to non-living)

Matches letters
Discriminates and names letters

Adapted from Clark et al, 1984; Cohen & Gross, 1979; Kusmierek et al, 1986

One to One Correspondence

- 24-36 mo. Can count by rote to five
Understands concept of one
Can count two to three objects
- 36-48 mo. Can count up to five objects
- 48-60 mo. Can count up to ten objects
Understands “more,” “less,” “same”
Can count objects, enumerating each object once
Identifies and names numbers
Can match the number of items in a set to the correct number
Understands concept of zero

Adapted from Cohen & Gross, 1979

Sequencing Abilities

- 36-42 mo. Understands big, little
- 36-48 mo. Understands questions about what is going to happen next
- 36-52 mo. Understands tall, short
- 42-52 mo. Understands tallest, largest, shortest, smallest
- 48-60 mo. Counts objects in sequence with one to one correspondence
Can put three pictures in a sequence to tell a story
Knows sequence of reading book, from left to right and top to bottom
Knows first, middle and last
- 60-72 mo. Can place objects in order from shortest to tallest, and smallest to largest
Identifies first, last, middle
Combines letters into words

Adapted from Clark et al., 1984; Cohen & Gross, 1979; Kusmierek et al., 1986

Drawing Skills

- 12-24 mo. Imitates scribbling
- 24-30 mo. Imitates vertical stroke, horizontal line, circular strokes
- 30-36 mo. Imitates cross
Draws lines, strokes, and arcs spontaneously
Makes first spontaneous unrecognizable forms

- 36-48 mo. Draws circle
 Draws face of a person
- 48-60 mo. Draws stick figure
 Copies square, triangle, diamond
 Copies diagonal and V strokes
 Adds trunk and arms to person
 Draws identifiable objects without model
 Copies own name in large, irregular letters
 Copies numbers unevenly
- 60-72 mo. Copies rectangle
 Copies letters and numbers with more accuracy, but still has many errors

Adapted from Clark et al., 1984; Cohen & Gross, 1979; Kusmierek et al., 1986

Social/Emotional

Development of Humor

- 4-12 mo. Child smiles, later laughs at physical games and anticipated actions of objects
- 12-18 mo. Child laughs at incongruous events (wearing a bowl as a hat)
- 12 - mo. Child laughs at events that deviate sharply from everyday experiences
- 18-24 mo. Child laughs at incongruous labeling of objects and events (calling a nose an ear)
- 24-36 mo. Child laughs at combinations of incongruous events and use of words (milking a dog)
- 36-60 mo. Child laughs at concrete, perceptually incongruent events and distortions of familiar sights and sounds (rhyming and nonsense words)
- 60-72 mo. Child laughs at multiple meanings of words

Adapted from McGhee, 1979

Motor

Jumping

- 17-21 mo. Jumps down from step
- 17 mo.-2 1/2 yrs. Jumps off floor with both feet
- 19 mo.-2 1/2 yrs. Jumps from bottom step
- 2- 5 yrs. Jumps over objects
- 2 1/2 yrs. Hops on one foot, few steps
- 3-5 yrs. Hops on one foot
- 3-4 yrs. Skips on one foot
- 5-6 yrs. Gallops, leading with one foot and transferring weight smoothly and evenly

- 6 yrs. Hops in straight line
- 6-7 yrs. Skips on alternating feet, maintaining balance

Adapted from Chandler, 1979; Folio & Fewell, 1983; Hellebrandt, Rarick, Glassow & Carns, 1961

Development of Ball Skills

- 2-5 mo. Visually tracks ball
- 9 mo. Retains or releases without reference to the examiner
- 9-16 mo. Plays ball
- 9-18 mo. Definite fling of ball
- 15-18 mo. Walks into large ball to push it forward
- 15 mo.-2 1/2 yrs. Throws ball overhead
- 20-24 mo. Kicks ball forward
- 2-2 1/2 yrs. Throws ball in standing without falling
- 30-35 mo. Catches ball from straight arm position, trapping ball against chest
- 3-4 yrs. Catches ball with elbows bent in front of body
Throws ball using shoulder and elbow
- 3-5 yrs. Throws, guiding the course of the ball with the fingers
- 54-59 mo. Catches ball with elbows at sides
- 60-71 mo. Bounces and catches tennis ball

Adapted from Chandler, 1979; Folio & Fewell, 1983; Scherzer & Tschamuter, 1982

Development of Manipulative Prehension

- 18-25 mo. Separates pop beads
Snips paper with scissors
- 18-41 mo. Strings 3-4 beads
- 22-30 mo. Folds paper in half
- 24-29 mo. Uses forearm rotation to turn door knob
- 24-35 mo. Unbuttons large buttons
- 28-35 mo. Snips on line using scissors
- 30-35 mo. Cuts paper in half with scissors
- 30-47 mo. Buttons one or two buttons alone
- 36-47 mo. Holds paper with one hand while writing with the other hand
- 36-59 mo. Uses scissors to cut paper on a line
- 42-47 mo. Cuts circle with scissors
- 48-59 mo. Places paper clips on paper
Opens small padlock with key
- 60-71 mo. Colors within lines

Adapted from Folio & Fewell, 1983; Furano et al., 1984; Newburg, Stock, Wnek, Guidibaldi, & Svinicki, 1984