



# Development Milestones Birth to Eight Years

Abbreviations Used	
dB	decibel
LF	low frequency
HF	high frequency
CV	consonant-vowel
R	receptive
E	expressive
MLU	Mean Length of Utterance

Children grow and develop at different rates. However, most pass through an identifiable skill “set” along the way. Called developmental milestones, these are skills that build on each other, from simple to complex, during predictable time periods. For example, a child must babble single syllables (4-6 months) before multiple syllables (7-9 months) before speaking 2-word sentences (18-24 months). Milestone charts represent a “timetable” for mastery of these skills – a guide to “normal” development. Keep in mind, however, that children vary in their development and that an individual child may develop more quickly in one area than in another.

Below are general guidelines for hearing/auditory, cognitive, speech (sound production) and language (listening, understanding and using words) development. Most children will demonstrate these skills within six months of the times listed. In reality, these areas overlap, as development in one area is reinforced and enhanced by growth in others.

## Birth - 3 Months

### Hearing

- Auditory detection/attention:
- Reacts to loud sounds with startle (Moro reflex)
  - Reacts initially to sounds that are close by; between 2-4 months begins to develop distance hearing
  - Responds to LF sounds (vowels) better than to HF sounds (consonants)
  - By the end of the third month, an infant recognizes his mother’s voice; stops crying to listen; listens to his/her own sounds
  - Enjoys only a few noisemakers

### Speech

- Infants are unable to control motor movements; therefore, most actions are reflexes. The most important reflex for speech development is the rhythmic suckswallow pattern, established three months prior to birth.
- Produces sounds such as fussing, crying, burping and cooing.
- Produces most sounds on exhalation with lengthy vowel-like sounds (back vowels)
- Makes single vowel sounds “ah” “eh” “uh” - one syllable
- Sustains cooing 15-20 seconds
- Different kinds of crying for pain and hunger

### Language

- Attends to speaker’s mouth or eyes
- Moves in response to voice
- Expresses feelings by cooing (one syllable - “ah”), gurgling (at back of throat) and crying (E)
- Exhibits differentiated crying (E)
- Vocalizes to caregiver’s smile and voice and to express pleasure (E)

### Cognition

- Responds to and imitates facial expressions of others (Meltzoff & Moore, 1977)
- Recognizes bottle or breast
- Briefly looks at objects

## 4 - 6 Months

### Hearing

- Turns eyes/head to search for sounds
- Enjoys hearing own sounds (gurgling, laughing and babbling), auditory feedback loop develops
- Enjoys sound of musical toys (rattles, bells)
- Responds to voices by babbling
- Begins differentiating between environmental and speech sounds
- After hearing the mother’s voice, cries if the face he/she then sees is not the mother’s face
- Recognizes familiar sounds for feeding (e.g. a spoon in a dish)

### Speech

- Vocalizes in self-initiated sound play
- Coos to music
- Vocalizes “ma” or “mu”
- Tries to repeat heard sound sequences
- Babbling begins
- Experiments and plays with sounds (yells, gurgles, blows raspberries and bubbles)
- Varies volume, pitch and rate (suprasegmentals)

### Language

- Smiles at speaker (R)
- Vocalizes to objects (E)
- Laughs
- Says “mama/dada” without meaning (E)
- Babbles to gain attention (E)
- Shows pleasure/displeasure by vocalizing (E)

### Cognition

- Explores with hands and mouth
- Smiles/vocalizes to mirror image; reaches out to mirror image
- Experiments with cause-effect: shakes rattle
- Reaches for objects



# Development Milestones - Birth to 8 yrs

## 7 - 9 Months

### Hearing

- In sitting position, turns eye/head/body to source of sound (sound localization); has difficulty locating sounds above or behind
- Responds to simple requests
- Modifies speech to match what is heard
- Imitates speech and non-speech (blowing raspberries) sounds
- Responds to name
- Attends to music/singing
- Understands many onomatopoeias (**Learning to Listen Sounds**)

### Speech

- Produces sounds in one breath
- Enjoys imitating sound sequences
- Babbles with some CV syllables ("bababa")
- Uses /m/, /n/, /b/, /p/, /t/, /d/ in babbling
- Imitates sounds, cough, tongue clicking (increased tongue tip activity), etc.
- Imitates some onomatopoeias
- Babbling shows pitch and inflectional changes
- Copies (sometimes inaccurately) intonational contours
- Beginning of adult speech (starting to develop certain vowels, syllables, diphthongs)

### Language

- Recognizes names of family members (R)
- Responds to "no" most of the time (R)
- Attends to pictures (R)
- Uses gesture and vocalization to protest (E)
- Vocalizes during games (E)

### Cognition

- Searches for partially hidden object
- Struggles to get objects that are out of reach
- Plays games like "peek-a-boo"
- Imitates simple acts, e.g. clapping, nodding
- Gives, points, shows
- Pulls rings off peg

## 10 - 12 Months

### Hearing

- Responds physically to music
- Responds to questions by searching
- Can look for named object that is out of sight
- Understands some common phrases

### Speech

- Uses variegated (non-reduplicative) babbling ("dageedagee")
- Begins changing babbling to real words
- Continues imitating sounds
- Begins using more back vowels, central vowels and consonants

### Language

- Recognizes familiar persons or objects when named (R)
- Looks at named pictures with an adult (R)
- Attends to new words (R)
- Identifies 2 body parts on self (R)
- Gives objects upon verbal request (R)
- Uses social gestures (waving "bye-bye") (E)
- Vocalizes with intent frequently
- Uses onomatopoeias to refer to objects (E)
- Says one to two words spontaneously

### Cognition

- Tries to accomplish simple goals (seeing and then crawling to a toy)
- Looks for/finds objects that are out of sight (such as a spoon that falls under the table)
- Stacks rings on peg
- Begins awareness of in/out (objects/containers)

## 12 - 18 Months

### Hearing

- Shows interest in sounds of radio and television
- Listens to simple stories, songs and rhymes
- Demonstrates two item memory

### Speech

- Uses echolalia and unintelligible speech/jargon
- Omits some initial consonants and almost all final consonants
- Continues to develop vowels and diphthongs
- Varies pitch when vocalizing
- Uses 21 different phonemes
- Imitates words inexactly

### Language

- Follows 1-step commands without a gesture/verbal cue alone (R)
- Uses true words within jargon-like utterances (E)
- Combines vocalizations and gesture to obtain a desired object (E)
- Identifies/points to 3+ body parts (on self or doll), clothing item or toy on verbal request
- Names objects on request (E)
- Gives objects if asked (R)
- By month 18, uses 20-100 meaningful words; 50% of words are nouns (E)

### Cognition

- Explores objects in many different ways (shaking, banging, throwing, dropping)
- Points to named pictures
- Begins to use objects correctly (drinking from cup, brushing hair, holds phone to ear)
- Laughs at silly actions (as in wearing a bowl as a hat)
- Solves problems by trial and error (e.g. inverts bottle to obtain object; obtains toys with stick)
- Scribbles spontaneously



# Development Milestones - Birth to 8 yrs

## 18 - 24 Months

### Hearing

- Understands when called from another room
- Remembers what was heard in the correct order (e.g. “Put the fish in the water and the turtle on the grass.”) (auditory sequencing)
- Follows a conversation when the topic is known
- Answers questions about a picture or book

### Speech

- Jargon peaks at 18 months
- Correctly pronounces most vowels
- Uses /m/, /p/, /b/, /w/, /n/, /t/, /d/ correctly in the beginning of syllables and short words
- Two years: 25%-50% intelligibility
- Commonly uses 25 different phonemes
- Uses beginning consonants
- Word-final consonants emerge
- Pitch is lower and more stable

### Language

- Follows 2-step related commands without visual cues (R)
- Points to 4+ body parts (on self or doll) (R)
- Uses question intonation to ask yes/no questions (E)
- Uses 2-word phrases/sentences frequently by 24 months (“more milk,” “a doggie,” “read book”); MLU 1.5-2.0 (E)
- Names most common objects (E)
- Understands questions “Where?” and “What’s that?” (R)
- Begins using pronouns like “my,” “me,” “mine,”; refers to self by name (E)
- Uses 200+ words (E)

### Cognition

- Finds objects even when hidden under 2-3 covers
- Likes to take things apart
- Stacks rings on peg in order of size; builds higher towers
- Turns one page at a time
- Activates mechanical toy
- Pretends plays about familiar situations

## 2 - 2½ Years

### Hearing

- Answers questions about a story

### Speech

- 60% of speech is intelligible by 30 months of age
- Continues to develop front consonants

### Language

- Responds appropriately to location phrases (“in,” “on”) (R)
- Recognizes family member names (R)
- Uses “and” (“mommy and daddy”) (E)
- Uses 3-word sentences frequently; MLU 2.0-2.5 (E)
- Begins using verb endings (-ing) (“Mommy pushing”) (E)
- Refers to self as “me” rather than by name (E)
- Asks simple questions (“Where ball?” “What Daddy doing?” “What color?”) (E)
- Uses number + noun (“two doggie”) (E)

### Cognition

- Begins to sort by shapes and colors
- Names one color
- Begins make-believe play; dramatizes mother and baby
- Begins to understand functional concepts of familiar objects and part/whole concepts
- Shares toys

## 2½ - 3 Years

### Hearing

- Begins making cognitive judgements about what was heard, e.g. “Tell me about your trip to Disney World.” (auditory processing)
- Answers questions about an undisclosed but familiar topic

### Speech

- Continues use of echolalia when difficulties in speech are encountered
- Exhibits repetitions, especially starters (“I” and first syllables)
- Speaks with a loud voice
- Increases range of pitch
- Consistently uses initial consonants (some are misarticulated); frequently omits or substitutes final consonants

### Language

- Answers questions with “yes” or “no” (E)
- Understands the concepts of “one” and “all” (R)
- Uses subject pronoun: he (E)
- Asks “What happened?” (E)
- Uses “gonna” and “wanna” (E)
- Uses 3-4 word sentences; converses with self; MLU 2.5-3.0 (E)
- Shows interest in “why” and “how” explanations (R)

### Cognition

- Matches an object in hand or in the room to a picture in a book
- Completes 5+ piece puzzle
- Counts 2-3 objects; knows more numbers (but not always in the right order)
- Remembers what happened yesterday
- Knows where things usually belong



# Development Milestones - Birth to 8 yrs

## 2½ - 3 Years - continued

### Hearing

### Speech

- By age 3, 90% of children produce the following consonants in conversation: /p/, /m/, /n/, /h/, /w/
- Accurately pronounces all vowels and diphthongs (except those with an r, such as in the word “bird”)
- Uses approximately 27 phonemes
- Three years: 75-80% intelligibility
- Masters ⅔ of the adult speech sounds

### Language

- Expands use of verb endings (-ing), plurals/possessives (“eat cookies”), contractions (E)
- Begins the “why” question stage; asks “wh”-questions (“What’s that?” and “Where ball?”) (E)
- Uses 2-/3-word negative phrases (“no want that”) (E)
- Asks for “another” (E)
- Understands “now,” “soon” and “later” (R)
- Begins using singular/plural noun-verb agreement (E)
- “Converses,” relates simple imaginative tales; describes actions in book (E)
- Vocabulary: 900+ words

### Cognition

- Substitutes one object for another in pretend play (as in pretending a block is a car)
- Laughs at silly ideas (like milking a dog)
- Avoids some dangers, e.g. a hot stove or moving car
- Selects objects not the same or “Which doesn’t belong?” from set of objects
- Names own drawings
- Pretends to be caregiver
- Holds up fingers to tell age
- States first and last name

## 3 - 4 Years

### Hearing

- Improves listening skills; comprehends auditory information in a variety of settings (auditory understanding)
- Listens attentively and retells stories
- Accurately repeats sentences with high predictability
- Identifies objects based on description (open set)

### Speech

- Substitutes some stops for fricatives (i.e. “tat” for “sat”)
- Increases speech rate
- May delete a syllable in multi-syllabic words
- Simplifies words with blends (i.e. “blue” might be pronounced “bue”)
- 4 Years: 80-90% intelligibility
- The following consonants emerge: /r/, /l/, /s/, /tʃ/, /ʃ/, /z/
- By 4, 90% of children have mastered the following sounds in conversation: /b/, /k/, /d/, /j/y/, (as in “you”), /f/, /g/

### Language

- Uses possessives (E)
- Uses “we,” “she,” and “they” (E)
- Uses “some,” “many,” and “all”
- Uses present progressive: is/are/ am + verb ing (E)
- Uses some irregular verbs (E)
- Uses “can’t,” “not,” and “didn’t” (E)
- Uses “hafta,” “have to” and “want to” (E)
- Uses 3rd person singular -s (E)
- Expresses ideas and feelings rather than just talking about the world around him/her (E)
- Begins using analogies, comparisons; can complete opposite analogies (“sister is a girl; brother is a \_\_\_.”) (E)
- Describes the use of objects such as “fork” or “car” (E)
- Enjoys poems and recognizes language absurdities such as, “Is that an elephant on your head?” (R)
- Uses “do” to ask yes/no questions (E)
- Vocabulary: 1500+ words (E)

### Cognition

- Identifies and names primary colors
- Counts to 10
- Approaches problems from a single point of view
- Begins to have a clearer sense of time; wants to know what will happen next
- Engages in fantasy play; distinguishes between real and pretend words
- Takes turns and can do so without always being reminded
- Identifies situations that would lead to happiness, sadness or anger
- Draws somewhat recognizable picture that is meaningful to child if not to adult; names and briefly explains picture
- Distinguishes day activity (playing) from night activity (sleeping)
- Sequences familiar routines, simple finger plays, patterns of blocks
- Traces/copies figures (squares), drawn objects
- Knows division of day - morning, afternoon, night
- Matches object to occupation - fishing rod to fisherman



# Development Milestones - Birth to 8 yrs

## 4 - 5 Years

### Hearing

- Recalls 5+ facts from a familiar story
- Identifies word that rhymes or doesn't rhyme in set of 3-4

### Speech

- Five years: 98-100% intelligibility
- By age 5, the phonological processes of syllable deletion and fronting are suppressed
- The following consonants emerge: (/d<sup>3</sup>/)-"j" as in jump, /v/, voiced(/ð/) and voiceless(/θ/) "th"

### Language

- Asks what/who/where or why do questions (E)
- Asks whose (E)
- Uses does to ask yes/no questions (E)
- Converses with longer, more complex sentences, but still makes grammatical errors; MLU 4.5+ (E)
- Uses has, does, had (E)
- Uses because, when, if and so in clauses (E)
- Uses these and those (E)
- Uses before and after (E)
- Uses comparative adjectives ("small-smaller") (E)
- Answers "why" and "how" questions; replies to questions like "What is a house made of?" (E)
- By age 5, uses 2500 words (E)
- Ends conversations appropriately

### Cognition

- Draws recognizable pictures; copies more complex figures (triangle)
- Likes cutting/pasting
- Knows own street and town
- Begins to relate clock time to daily schedule
- Identifies a problem, lists possible solutions verbally and chooses which one(s) are most appropriate
- Tells color of unseen object ("What color is an apple?")
- Categorizes, naming items without visual clues, e.g. animals, food, toys; decides own criteria for categories
- Predicts story from book cover
- Names penny, nickel and dime
- Knows days of the week

## 5 - 6 Years

### Hearing

- Expansion of auditory understanding
- Can provide a word that rhymes with a given word
- Learns letter-sound associations

### Speech

- By 6, 90% of children have mastered the following sounds in conversation: /t/, /r/, /ŋ/(ng), /l/
- Uses a variety of blends
- Self-monitors speech

### Language

- Stabilizes correct usage of irregular plurals and past tense/irregular verbs (E)
- Uses pronouns, propositions and articles correctly, consistently (E)
- Uses superlative -est (E)
- Uses -er to form nouns (teach/teacher) (E)
- Uses future progressive: will be + verb + \_\_\_ing (E)
- Asks wh questions with does (E)
- Uses sentences with 8+ words; uses compound and complex sentences (E)
- Understands time sequences (what happened first, second, etc.) (R)
- Vocabulary: 2800+ words (R); 2500+ (E)

### Cognition

- Says letters of alphabet
- Understands that letters written on a page represent spoken words
- Understands number concepts to "10"
- Rote counts to 30+
- Recognizes and can reproduce many shapes, letters and numbers
- Plays games by the rules
- Understands seasons of the year
- Begins to think about their own behavior/actions and to see consequences/explain situations
- Begins to read and write, distinguishing capitals and lowercase
- Uses invented spelling (e.g. color could be spelled "kult") (E)
- Arranges objects in order, according to size
- Completes simple maze
- Adds, subtracts
- Comprehends directional commands - left/right



# Development Milestones - Birth to 8 yrs

## 6 - 8 Years

### Hearing

- Provides a synopsis/summary after listening to information one time

### Speech

- Most children have typical articulation by age 7
- By 7, 90% of children have mastered the following sounds in conversation: /ʃ/(sh), /tʃ/(ch), /ʒ/(zh), /tʃ/(ch), (/dʒ/), /j/ (/o/) “th”
- By 8, 90% of children have mastered the following sounds in conversation: /s/, /v/, /z/

### Language

- Uses irregular comparative/superlative: better, best, worse, worst (E)
- Uses past perfect tense (“She had read the book.”)
- Uses past perfect progressive (“had been camping”) (E)
- Asks “has” questions with present perfect (“Have you been there before?”) (E)
- Passive voice developed by most children (E)
- Uses well formed narratives (E)

### Cognition

- Can develop a plan to meet a goal
- Rote counts to 100+
- Understands and uses riddles and idioms (“Hold your horses”)
- Tells jokes
- Tells own address, phone number
- Names months of the year
- Names month for a given holiday
- Can tell time

For visual, motor, social and emotional developmental milestones, visit [How Kids Develop: What is child development and what skills do children develop at different ages?](#)

### REFERENCES/SOURCES:

- American Academy of Pediatrics. (1999) Steven P. Shelov, S.P. & Hannemann, R.E. (eds.) Caring for Baby and Young Child: Birth to Age 5. New York: Bantam.
- ASHA. (2005) [How Does Your Child Hear and Talk?](#)
- Interactive Speech Associates. (n.d. retrieved 5/23/06) [Developmental Norms/Milestones.](#)
- Justice, L. (2006). Communication Sciences and Disorders: An Introduction. Upper Saddle River NJ: Pearson.
- Learning Disabilities Association of America, (1999) [Early Identification - Cognitive Milestones.](#)
- Meltzoff, A. & Moore, M.K (1977). Imitation of facial and manual gestures by human neonates. Science 198:75-78.
- National Institute on Deafness and Other Communication Disorders/NIDCD. (2001) [Speech and Language Developmental Milestones.](#)
- Rossetti, L.M. (2005) The Rossetti Infant-Toddler Language Scale: A Measure of Communication and Interaction. East Moline: LinguiSystems, Inc.
- ShIPLEY, K and McAfee, J. (1998) Assessment in Speech Language Pathology: A Resource Manual. 2nd edition. San Diego: Singular publishing Group, Inc.
- Tuohy, J., Brown, J., Mercer-Moseley, C. (2005) [St. Gabriel's curriculum for the development of audition, language, speech, cognition, early communication, social interaction, fine motor skills, gross motor skills: A guide for professionals working with children who are hearing-impaired \(birth to six years\).](#) 2nd ed. Sydney: St. Gabriel's Auditory-Verbal Early Intervention Centre.
- Wilkes, E.M. (1999) [Cottage Acquisition Scales for Listening, Language & Speech.](#) San Antonio: Sunshine Cottage school for Deaf Children. 06/25/03
- Alexander Graham Bell Association | UNC-CH Division of Speech and Hearing Sciences

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