

APPENDIX 2 – AREAS OF DEVELOPMENT CONSIDERED CHART

The **C.H.I.L.D. Protocol™** areas of development are deeply rooted in developmental neuropsychology and a comprehensive understanding of brain development and its superior functions. The theoretical areas addressed in this chart include neurophysiology, sensory perception, psychomotor, communication, cognitive, and socioemotional development. By integrating age-appropriate typical and expected developmental milestones, the areas of development chart provide a nuanced approach to understanding and evaluating a child's progression in these critical domains.

Each developmental area is meticulously considered to encompass the diverse aspects of a child's evolving capabilities. The inclusion of neurophysiology acknowledges the foundational role of the nervous system in shaping a child's overall development. Sensory perception explores how a child processes and interprets sensory information crucial for their interaction with the environment. Psychomotricity addresses the integration of motor skills and cognitive processes, while communication digs into the complex journey of language comprehension and expression, non-verbal and verbal expression. Cognition captures the thoughts, understanding, intellect, awareness, and socio-emotional development and reflects the intricate interplay between a child's emotions and social interactions.

The list of areas of development is constructed with an awareness that specific milestones may manifest across multiple domains. For example, a child's ability to grasp and manipulate objects not only contributes to psychomotricity but also involves sensory perception and cognitive processing. Similarly, a child's first words mark milestones in both communication and cognition.

To establish criteria for considering a specific area, the **C.H.I.L.D. Protocol™** emphasizes the sequence of significant signals. These signals represent observable indicators that denote the acquisition of a particular ability and competence within a designated age range. The chart organizes acquisitions in predetermined areas, facilitating a systematic and comprehensive evaluation of a child's development. For instance, within the communication domain, the emergence of joint attention and babbling might signify not only language development but also cognitive growth. In psychomotricity, achieving milestones like crawling and standing may not only pertain to motor skills but also indicate cognitive and perceptual advancements.

This chart aligns with the continuum of development and expresses the interconnected nature of various domains while emphasizing the importance of sequential, meaningful signals in assessing a child's abilities and competencies.

| AREAS OF DEVELOPMENT (AoD) CONSIDERED |
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| CHILD PROFILE |
| Name |
| Gender (Female, Male) |
| Date of Birth |
| Age (__ days; __ months __ days) |
| Ethnicity/Ancestry |
| a. Nationality |
| PART I - HEALTH AND DEVELOPMENTAL HISTORY |
| I.1. HEALTH HISTORY |
| I.1.1 Pregnancy |
| ▪ Any concerns, remarks |
| I.1.2. Delivery condition: - Natural birth |
| ▪ C-section |
| ▪ Forceps |
| ▪ Transition from womb (cried) |
| I.1.3. Length of pregnancy |
| ▪ On term |
| ▪ Premature |
| ▪ Post-mature |
| I.1.4. APGAR Score: - First minute |
| ▪ Fifth minute |
| I.1.5. Physical health (medical care/treatment at birth) |
| a. Newborn hearing test |
| b. Newborn vision screening |
| c. Growth (height, weight, head perimeter) |
| d. Nutrition (breastfeed, bottle, special formula) |
| e. Emergency treatment after birth (NICU) |
| f. Actual medical care |
| g. Any surgery |
| h. Any specialized treatment |
| i. Any concerns; explain |

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| I.2. DEVELOPMENTAL HISTORY |
| I.2.1. Prevention & Follow-up |
| a. Nutrition (age-appropriate food and use of utensils) |
| ▪ Types of food |
| ▪ Utensils use |
| b. Age-appropriate vaccines |
| c. Annual pediatric visit/preventive |
| d. Hearing screening |
| e. Vision screening |
| f. Developmental screening |
| g. Growth assessment (compared with projected charts for girls/boys) |
| ▪ Height |
| ▪ Weight |
| ▪ Head perimeter |
| h. Oral health prevention |
| ▪ Dental assessment |
| ▪ Eruption/Teething completed (Upper 10; Lower 10) |
| ▪ Shed started (Upper 2 Lower 2 central incisors) |
| i. Waste elimination |
| ▪ Feces and urine elimination |
| ▪ Control of sphincters/potty-training |
| • Day: Feces at __ months; Urine at __ months |
| • Night: Feces at __ months; Urine at __ months |
| I.2.2. Hygiene (daily living routine) |
| a. Eating well (with supervision, by herself) |
| b. Sleeping well |
| ▪ During the day; During the night |
| c. Bathing (with supervision, by herself) |
| d. Hand washing (with supervision, by herself) |
| e. Mouth cleaning/Brushing teeth (with supervision, by herself) |
| f. Dressing (with supervision, by herself) |
| g. Physical activities (at home, with supervision, by herself) |
| ▪ Playground |
| ▪ Other |
| I.2.3. Health status |
| I.2.4. Neurophysiological |
| a. Non-identified discomfort (colic, constant crying, other) |
| b. Innate reflexes presence |
| ▪ - Gagging reflex |

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| ▪ Moro reflex |
| ▪ Palmar grasp |
| ▪ Rythmic suction-swallow reflex |
| c. Bipedal locomotor coordination |
| d. Sensation/body response/integration process |
| I.2.5. Sensoriperception |
| Sensorial |
| ▪ Auditory (reaction/discrimination) |
| ▪ Visual (reaction/discrimination) |
| ▪ Visual recognition (colors) |
| ▪ Olfactory (reaction/discrimination) |
| ▪ Gustative (reaction/discrimination) |
| ▪ Tactile (reaction/discrimination) |
| ▪ Recognition (colors, sounds, smell, taste, texture) |
| b. Corporal scheme & proprioception (4 years) |
| ▪ Recognition of body parts (age appropriate level) |
| ▪ Recognition space/body orientation |
| d. Space orientation/organization (age appropriate level) |
| ▪ Walked inside the circle |
| e. Time order & sequence/orientation |
| ▪ Knows time |
| I.2.6. Laterality (lower & upper limbs; eyes) |
| Hand: Right Left Either |
| Foot: Right Left Either |
| Eye: Right Left Either |
| I.2.7. Psychomotricity |
| a. Psychomotricity Basic (gross motor coordination) |
| ▪ Hold head at ___ months |
| ▪ Sat at ___ months |
| ▪ Crawled at ___ months |
| ▪ Walked at ___ months |
| ▪ Climbed stairs at ___ months |
| ▪ Ran at ___ months |
| ▪ Threw ball at ___ months |
| ▪ Jumped at ___ months |
| ▪ Kicked ball at ___ months |
| b. Psychomotricity Fine (fine appendicular coordination) |
| ▪ Traced lines at ___ months |
| ▪ Used scissors at ___ years |
| I.2.8. Communication |
| a. Verbal Comprehension/language |

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| ▪ Smiled at ___ months |
| ▪ Babbled at ___ months |
| ▪ Vocalized at ___ months |
| ▪ Imitated sounds at ___ months |
| ▪ Spoke simple words at ___ months |
| ▪ Understood simple words at ___ months |
| ▪ Imitated simple sentences at ___ months |
| b. Expression (speech, vocabulary, fluency, interaction) |
| ▪ Played with sounds |
| ▪ Used jargon at ___ months |
| ▪ Spoke 2-3-letter words |
| ▪ Spoke simple sentences at ___ months |
| ▪ Followed order at ___ months |
| c. Pre-drawing |
| ▪ Scribbled at ___ years |
| ▪ Copied pictures at ___ years |
| d. Pre-writing |
| ▪ Scribbled lines/shapes at ___ years |
| ▪ Copied lines/shapes at ___ years |
| ▪ Traced numbers at ___ years |
| ▪ Traced letters at ___ years |
| ▪ Copied numbers/letters ___ years |
| ▪ Wrote words, sentences at ___ years |
| e. Pre-reading |
| ▪ Recognized letters and numbers at ___ years |
| ▪ Read at ___ years |
| 1.2.9. Cognition |
| a. Simple reflexes |
| b. Attention/concentration |
| c. Memory (register/retention) |
| d. Primary circular reactions/first reactions |
| e. Secondary circular reactions |
| f. Coordination of secondary circular reactions |
| Hand-eye coordination; goal accomplishment |
| g. Tertiary circular reactions |
| Internalization of schemes |
| h. Pre-operational stage/ Pre-conceptual thinking Pre-logical, intuitive thinking |
| i. Conceptual ability |
| j. Planning (impulse to implement) |
| k. Implementation |

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| I.2.10. Socioemotional |
| a. Attachment/Affection |
| b. Empathy |
| c. Interaction with significant other |
| d. Interaction with other |
| e. Interaction with other children |
| f. Interaction with environment |
| • Physically |
| • Socially |
| PART II. CURRENT DEVELOPMENTAL STATUS |
| II.1. NEUROPHYSIOLOGICAL |
| II.1.1. Non-identified discomfort/Innate reflexes |
| a. Constant colic; |
| b. Constant crying |
| c. Rooting reflex (0-2 months) |
| d. Rhythmic suction-swallow reflex (from 0-8 months) |
| e. Chewing-swallowing pattern (6-9mo; mastered 30-36) |
| f. Palmar/fingers grasp reflex (0-6mo) |
| g. Plantar/Babinski reflex (0-24) |
| h. Plantar/toes grasp reflex (0-8) |
| i. Moro reflex (0-6) |
| j. Gagging reflex (0-6) |
| k. March reflex (0-4) |
| II.1.2. Crossing the mid-line (eye coordination) |
| II.1.2. Bipedal locomotor coordination |
| II.1.3. Sleeping/0-30 months expected 12-16 h/daily |
| b. 3-5 years old between 10 to 13 h/d |
| c. 6+ years old between 9-11 h/d |
| II.1.4. Nutrition |
| a. Feeding/eating habits/abilities (breast, formula, combination) |
| e. Food allergy |
| l. Type of food (liquid, paste, semi-solid, solid) |
| j. Use of utensils |
| II.1.5. Daily Living |
| a. Resting (napping) |
| b. Bathing/diaper change; tooth brushing |
| c. Hands washing |
| d. Mouth washing/ Tooth brushing |
| II.1.6. Waste elimination |
| II.1.7. Sphincters Control /Potty Training |
| a. Bowels (Feces)/daytime |
| b. Bladder (Urine)/nighttime |
| c. Physical activities outside home |
| II.1.8. Teething (primary or baby tooth) |

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| a. Eruption (6-10 months through 36 months) |
| b. Shed (5-12 y) |
| c. Oral health prevention (annual pediatric dentist exam) |
| II.2. SENSORIPERCEPTIVE |
| II.2.1. Sensibility (sensorial recognition/perception) |
| a. Visual |
| • Brief look |
| • Visual discrimination |
| • Visual recognition (colors) |
| • Visual/auditory perception |
| • Visual/tactile |
| b. Auditory perception/detection/reaction |
| ▪ Reaction to sounds/differencing voice x environmental |
| ▪ Decodification |
| ▪ Acuity: learning how to listen to sounds |
| ▪ Auditory sequencing: auditory understanding |
| ▪ Audio-verbal association |
| ▪ Auditory recognition (sounds) |
| c. Olfactory |
| • Olfactory recognition |
| d. Gustative |
| • Gustative recognition (3-4) |
| e. Tactile |
| • Tactile recognition |
| f. Senses recognition and enhancement (4y) |
| II.2.2. Corporal Scheme and Proprioception |
| a. Segmental position recognition |
| b. Knowledge of body parts (30mo) |
| ▪ Self-identification |
| ▪ Abstraction from own body |
| II.2.3. Laterality (4y) |
| ▪ Mastery (lower and upper limbs; eyes) |
| II.2.4. Space Structuration (4y) |
| a. Space orientation |
| b. Space-body orientation |
| c. Space organization |
| d. Space-body organization |
| e. Understanding of spatial relationships |
| II.2.5. Time-based orientation (4y) |
| a. Order and sequence |
| b. Intervals duration |
| c. Cyclic renovation of period of time |
| d. Rhythm |

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| II.3 PSYCHOMOTRICITY |
| II.3.1. Psychomotricity Basic |
| a. Gross motor Coordination |
| a.1. Muscular Strength |
| a.2. Static Equilibrium |
| a.3. Dynamic Equilibrium |
| a.4. Rhythm |
| b. Basic Appendicular Coordination |
| c. Motor Persistency |
| II.3.2. Psychomotricity Fine |
| a. Fine Appendicular Coordination |
| II.3.3. Sensorimotor Coordination (attention + perception) (4y) |
| II.3.4. Percepto-motor coordination (visual perception + grasp) (5y) |
| II.3.5. Proprioception (position and movement of the body) |
| II.4 COMMUNICATION |
| II.4.1. Comprehension (language) |
| a. Auditory perception; recognition of familiar sounds, voices |
| b. Responses to voices and smile |
| c. Babbling to gain attention |
| d. Verbal comprehension (9 months) |
| • Discrimination of phonemes and words |
| • Identification of verbal messages |
| e. Comprehension of order/direction/command |
| f. Graphic signs understanding |
| g. Decoding |
| II.4.2. Expression (speech) |
| a. Crying (pain, anger, discomfort) |
| b. Vocalization (cooing to music, babbling, <i>ma</i> or <i>mu</i> sound) |
| c. Experiment/play with sounds; vary volume/pitch/rate |
| d. Articulation, pronunciation |
| e. Fluency |
| f. Audiovisual memory; sequential memory |
| g. Vocabulary |
| h. Interaction with other |
| i. Gestural communication; beginning of adult speech |
| j. Use of echolalia/jargon; vowel pronunciation |
| k. Tasks understanding/execution of tasks |
| II.4.3. Graphism/pre-drawing |
| a. Random scribbles; spontaneous/ordered scribbles (12-24mo) |
| b. Pre-schematic draw (2-5y) |
| ▪ Imitation; copy; tracing of lines, shapes, letter |
| ▪ Spontaneous, simple drawing; names own drawing |
| c. Schematic drawing (5-7y) |
| ▪ Spontaneous drawing; copy of pictures |
| II.4.4. Pre-Writing |

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| a. Scribbles in vertical/horizontal/circular directions (12-24mo) |
| b. Imitates horizontal and vertical lines and a circle (24-36mo) |
| c. Copies horizontal and vertical lines and a circle (3-4y) |
| d. Imitates +, / and \; and a square (3-4y) |
| e. Copies +, / and \; and a square (4-5y) |
| f. Traces a line (4-5y) |
| g. Imitates X and Δ (4-5y) |
| h. Pencil grasp mastered (fingers/thumb) (4-5y) |
| i. Writing letters, phonemes, words (4-6y) |
| j. Copies X and Δ (5-6y) |
| k. Recognizes big/small lines or curves (5-6y) |
| l. Writing words, phrases, and text (5-7y) |
| II.4.5. Pre-Reading |
| a. Exposure to books and stories (3mo and on) |
| b. Print awareness; graphic sign, number, & letter recognition |
| c. Phonological awareness (speech sounds) |
| d. Listening comprehension |
| e. Motivation to read letters, phonemes, sentences, text |
| f. Letter & phonemes reading |
| g. Phrases & sentences reading |
| II.5. COGNITION |
| II.5.1. Simple reflexes |
| a. Responses/imitation facial expressions |
| b. Recognition of breast/bottle |
| II.5.2. Attention; concentration |
| II.5.3. Memory |
| a. Register and retention |
| b. Immediate evocation (auditory, visual, working-memory) |
| c. Short-term evocation (anterograde) |
| d. Long-term evocation (retrograde) |
| e. Association of thoughts |
| II.5.4. Circular reactions (6 weeks-24 months) |
| a. Primary circular reactions; first habits (age 6w-4m) |
| • Explore with hands and mouth; reach for objects |
| • Smiles/vocalizes to mirror image |
| b. Secondary circular reactions (4m-8m) |
| • Experiment with cause-effect (shaking the rattle) |
| • Object permanence |
| • Reaches out to mirror image |
| c. Coordination of secondary circular reactions (8-12mo) |
| • Accomplishment of a simple goal |
| d. Tertiary circular reactions, novelty, curiosity(12-18mo) |
| • Explore objects; solve problems by trial/error |
| e. Internalization of schemes (18-24mo) |
| • Pretend play |
| • Mental representation of reality |
| • Complex schematic understanding |
| • Pretend play; imaginary friends |
| • Acceptance of others; internalization of social behaviors |

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| II.5.5. Pre-operational stage (2-7year) |
| a. Pre-conceptual thinking (2-4years) |
| • Centration: focus on only one aspect of a situation, object |
| • Incipient memory: remember events that occurred earlier |
| • Egocentric perspective |
| • Symbolic representation: make-believe, dramatic play |
| • Conceptual abilities (numbers, graphic signs, letters) |
| b. Pre-logical /Intuitive thinking/p (4-7years) |
| • Symbolic play: fantasy |
| • Imitation |
| • Animism; Artificialism; Irreversibility |
| II.5.6. Conceptual/theoretical ability (5-7y) |
| a. Graphic signs; numbers, letters |
| b. Arithmetic processes |
| c. Acquisition of information and use |
| d. Ordering; classification |
| e. Problem-solving |
| f. Elaboration |
| • Reasoning |
| • - Operation/expression of internalized actions |
| • Simple problems solution |
| • Judgement of values |
| • Ability to express an opinion |
| • Right/wrong knowledge |
| • Behavior patterns |
| • Self-criticism |
| • Execution of tasks |
| g. Planning (impulse to implement) |
| h. Implementation |
| II.6 SOCIO-EMOTIONAL |
| II.6.1. Affection (imprinting, bonding) |
| a. Imprinting, bonding (newborn-2mo) |
| b. The significant adult |
| c The other adults and children |
| II.6.2.Attachment (2 months and on) |
| a. Self-soothing; social smile (0-12mo) |
| b. Emotion expression (happy, sad, mad) – 6mo |
| c. Regulation of attention (memory lasts 24hrs) |
| d. Reliance on the other; separation anxiety (9mo) |
| e. Exploration from a secure base (12mo) |
| f. Expression of desires & needs (12mo) |
| g. Narrative memory (12mo) |
| h. Increased independence |
| i. Self-awareness/self-consciousness emergence |
| j. Early emergence of empathy (12-30m) |
| k. Parallel play (18mo) |
| l. Autonomy rise; limits testing, tantrums (24mo) |
| • Negativism (no); possessiveness (mine) |
| II.6.3. Symbolic access to regulate emotions (2-5y) |

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| • Self-awareness/consciousness of own feelings |
| • Increased insight into other's emotions |
| II.6.4. Empathy (3y and on) |
| a. Cooperative play; sharing |
| b. Pretend thinking; role play |
| c. Separation with minimum problems |
| II.6.5. Self-conscious emotions targeted for regulation (4-7y) |
| a. Elaborate fantasy play |
| b. Preferred friend |
| II.6.6. Interaction with other (4mo-) |
| a. Incipient turn-taking interactions (0-12mo) |
| • Parent's face exploration |
| • Social referencing |
| b. Anticipation of different feelings of different people (12-30m) |
| c. Shared attention/communication (15mo) |
| • Points at interesting items |
| • Bring toys/objects to parent |
| d. Understanding of rules (family, group, games) (3-4y) |
| e. Preferred friend (4y) |
| f. Group of friends (5y) |
| II.6.7. Interaction with environment (physically and socially) |
| a. Physical interaction |
| • Handling the complexities of space and place |
| • Expanding knowledge of locality, neighborhood, town, etc. |
| b. Social interaction |
| • Relationships |
| • Attitudes and habits |
| • Internalization of cultural norms |
| • Judgement of value |
| • Right/wrong concept |
| • Behavior patterns |
| • Social maturity |
| • Taking responsibility |
| • Civility |
| THROUGHOUT DAILY ACTIVITIES |
| Daily routine |
| Play, Arts, and Early Literacy |
| Music, Movement, and Rhythm |