

TPBA2 Age Table: Cognitive Development



Child's name: _____ Age: _____ Birth date: _____
 Parent's name: _____ Assessment date: _____
 Person(s) completing the form: _____

Directions: Based on the observations recorded on the TPBA2 Observation Guidelines and/or TPBA2 Observation Notes, review the Age Table to determine the age level that most closely matches the child's performance. It may be helpful to circle items on the Age Table that the child can do. If items are circled across multiple age levels, find the child's age level by finding the mode (i.e., determine which age level has the most circled items). Age levels after 12 months/1 year represent ranges rather than individual months and are preceded by "By." If the most circled items appear in one of these age levels, consider the child's age level to be the month shown (e.g., if the most circled items appear in the "By 21 months" level, the child's age level for that subcategory is 21 months).

Note: The Conceptual Knowledge and Literacy subcategories are not included in this Age Table; rather, they are included in a separate Age Table, Conceptual Development.

Age level	Attention	Memory	Problem solving	Social cognition	Complexity of play
1 month	Stares at faces	Imitates tongue and mouth movements Remembers objects that reappear within 2.5 seconds Capable of remembering (recognizing) actions from one day to the next	Fixates and tracks objects and faces Nonvoluntary, reflexive responses to stimuli	Enjoys studying people and environment Focuses on mouth of adult	Smiles in response to high-pitched voice
2 months	Stares indefinitely at surroundings Attends to contours, contrasts Tracks objects horizontally	Retention of motor actions that result in interesting effects	Studies own hand movement Can scan objects for both contour and internal characteristics	Focuses on eyes of adults Seeks voices of familiar adults	Smiles in response to nodding face Repeats pleasurable physical activities directed toward self
3 months	Prefers people to objects Tracks in circles Definite listening to sounds Can remain focused for 2 or more minutes at a time	Becomes excited in anticipation of movement of objects Waits for expected events (e.g., feeding) Shows recognition of family members	Takes hands to mouth Reacts to disappearance of an object Shows excitement in anticipation of action Swats at objects, grasps objects voluntarily	Imitates facial movements (birth to 3 months) Smiles more at people than objects Quiets at sound of calming voice	Has physical enjoyment of kicking, arm waving (birth to 3 months) Explores environment with senses (birth to 3 months) Primarily mouths objects (birth to 3 months) Makes true social smile

(continued on next page)

(continued from previous page)

Age Table: Cognitive Development TPBA.2

Age level	Attention	Memory	Problem solving	Social cognition	Complexity of play
4 months	Attends to individual fingers, not fist Turns head to find source of sounds Attends to internal aspects not just external contours	Responds with total body to recognized face Has memory span of 5-7 seconds Attempts imitation of sounds Anticipates actions based on previous occurrences Recognizes familiar objects based on movement or location	Uses kicking, reaching, and grasping to explore objects Mouthing is primary way to explore Repeats newly learned activities	Shows interest in others' facial expressions and sounds Begins to adjust responses to different people Picks up emotions from human speech	Displays laughter in social play, particularly with physical stimulation Enjoys repetition of actions, sounds Begins play with sound toys (e.g., rattles) Laughs
5 months	Object interest increases May prefer 1 or 2 toys Can focus at different distances Interest in different smells	Imitates sounds and movements deliberately Recognizes familiar objects	Searches for vanishing or moving objects Can reach, grasp, mouth to explore objects	Quiets to familiar voice Vocalizes to adult voice and expressions Can discriminate facial expressions in relation to emotions	Plays with sounds and patterns of sounds Plays with own hands, feet
6 months	Alert for almost 2 hours (5-6 months) Recognizes and shows interest in new environments Inspects objects for a long time Attends to new objects for up to 3 minutes	Remembers own actions in immediate past Can remember how to activate familiar toys Can remember and imitate actions performed by adults on toys Retrieves partially hidden object	Sits, uses hands to explore Uses fingers to explore and grasp Imitates mouth movements Becomes aware of effects of own actions versus others	Preferentially attends to faces rather than objects (birth to 6 months) Tries to imitate facial expressions Enjoys social play	Works to get toy Signals for repetition of actions Enjoys shaking and banging toys (5-6 months)
7 months	Shows attentional preferences Inspects objects for long time Concentrates on details	Remembers short sequence of actions if series involved his/her own actions Goal-directed behavior indicates memory	Explores with mouth and hands Grasps, manipulates toys Examines things from different perspectives Anticipates repetition of events Struggles to get objects out of reach	Distinguishes between friendly and angry voices Reacts to emotional displays of others Babbles to people	Bangs objects together Uses objects functionally Tries to get adult to laugh Responds enthusiastically to social games (4-7 months)
8 months	Follows what someone points to Shows objects to others Listens selectively to sounds and words	Recalls past events and actions on his/her own Anticipates events Recognizes objects and people based on sensory characteristics	Searches for objects seen hidden Combines different actions into new problem-solving attempts Looks to adults to solve problems Moves body to get what is wanted	Is able to share joint attention with someone else	Uses fingers in play to poke, pull, push

(continued on next page)

(continued from previous page)

Age Table: Cognitive Development TPBA.2

Age level	Attention	Memory	Problem solving	Social cognition	Complexity of play
By 15 months	Sustains interest for 2-5 minutes while looking at named pictures or books Attends to specific physical characteristics of objects	Imitates peers Remembers previous actions of others for months (anticipates what will happen or recreates actions)	Makes plan to achieve goal Keeps searching for hidden objects Places things on top of each other Find subjects behind a barrier	Knows what adult wants and spontaneously offers object Watches adults' actions and anticipates result	Likes putting things in holes Enjoys water play Cares for doll, teddy (e.g., feeds, cuddles, covers) Likes to play near another child Imitates adults' actions with toys
By 18 months	Pays attention to distant objects	Recognizes and can identify pictures and objects by pointing Imitates sounds and words Recognizes familiar places (15-18 months)	Shows purposeful exploration of toys (13-17 months) Uses variety of actions in trial and error to operate toys (13-17 months) Uses adult to activate toy if unsuccessful (13-17 months) Looks for hidden objects with systematic search (12-18 months) Moves, shifts, rearranges, modifies things as desired (12-18 months) Adapts familiar actions to new situations (12-18 months)	Knows what to do to get reaction (e.g., happy, mad) (9-18 months) Can interpret the goal of an adult's simple action (9-15 months, by 18 months) Knows his/her actions cause feelings in self and others Looks to see how others are reacting to their actions Watches adult start a task and can complete the task (knows adult's goal)	Likes toys that activate or "do" something Knows what to do to make another laugh (9-18 months) Begins symbolic play with construction Enjoys stacking objects (up to six) (15-18 months) Autosymbolic play: child pretends to eat, sleep (17-19 months) Uses objects functionally in play (e.g., phone, comb) (17-19 months)
By 21 months	Can follow the attention lead of others (looks at what others look at and does what others do)	Attempts to tell about experience using words and jargon (autobiographical memory) Remembers action sequences for 2 months	Uses real objects functionally to solve problems (e.g., pushes a chair over to get item that is up high) (19-21 months)	Uses direction of speaker's gaze to infer the referent of a word. Understands when someone is pretending to eat, drink, and so forth Shows genuine concern for another's distress (12-24 months)	Searches for objects to "go with" other toys (e.g., spoon for bowl, driver for car) Uses objects symbolically in play (18-21 months)
By 24 months or 2 years	Needs help shifting attention from one thing to another Will attend to books for several minutes independently Highly variable attention span depending on stimuli; has preferences for play (18-24 months)	Long-term memory for events, talks about the recent past (gist of events within last 6 months) Remembers strategies seen or used previously (18-24 months) Can dramatize remembered events (18-24 months)	Balances objects on top of each other (18-24 months) Can solve simple problems mentally without trial and error (18-24 months) Can solve a problem with verbal instructions (18-24 months). Can use a tool (manipulative item) to solve a problem (21-24 months)	Knows others have different emotions, likes, dislikes Uses words relating to mental states for self and others (e.g., happy, sad, want, like) (18-24 months) Can differentiate own versus others' desires (18-24 months) Comforts another child (15-24 months) Still takes another child's toys without concern for feelings (12-24 months) Anticipates the consequences of actions if naughty	Begins sharing (12-24 months) Can direct dramatic play to self, doll, and adult (19-22 months) Combines 2 toys in dramatic play (e.g., stirs in bowls, pours from pitcher into cup) (19-22 months) Can dramatize simple 3-step sequence (e.g., feeding doll, putting to bed, saying "nite-nite") Loves chase games Shares humor with others (21-24 months)

(continued from previous page)

Age Table: Cognitive Development **TPBA2**

Age level	Attention	Memory	Problem solving	Social cognition	Complexity of play
9 months	Interest in details of objects Grows bored with repetition of same stimuli Sustained interest (up to 1 minute) looking at pictures shown by adults	Responds with expectation to repetition of event or signal Remembers simple games Retrieves fully hidden object	Makes goal-directed actions Experiments with objects in different ways Can manipulate more than one object at a time Pincer grasp helps in activating toys Is persistent in search for desired toy	Produces peer-directed smiles and babbles Watches others to see how they accomplish their goals Understands gestures like "bye-bye" and games like Peekaboo Aware of others' reactions to his/her actions	Plays Peekaboo games (4–9 months) Combines objects in play Begins to show humor and teases Performs different actions with toys, depending on their characteristics (6–9 months)
10 months	Sustains interest in play (attends to both toy and adult) Deliberately chooses and attends to preferred toys Seeks social attention	Remembers and imitates actions performed by others, particularly with tools or objects	Dumps objects out of container Shows interest in fitting things together Searches for missing objects Experiments with trying things with both sides of body	Reacts to subtle emotional expression of others with behavioral response	Likes exploring cause-and-effect toys with actions and noises Begins to appreciate unexpected actions as funny Combines two objects functionally (e.g., putting things in) (7–10 months)
11 months	Attends to action toys	Remembers what words mean without object being present	Experiments with means-end (e.g., pushing chair as walker) Goes over or around obstacles to get to goal Imitates others' actions on toys	Seeks assistance of adult to activate toys	Imitates behaviors such as washing and feeding in play (11+ months) Pushes toys, cars, trucks Likes gross motor play Takes things off and out
12 months or 1 year	Shows intense attention to speech sounds Attention shifts from people to objects (7–12 months)	Can perform deferred imitation (imitation of actions without model present) Remembers a strategy that worked on one object and applies it to another	Finds hidden toys, searches for unseen objects Experiments with actions/reactions Experiments with heights, distances (e.g., dropping, throwing) Displays goal-oriented play Experiments with application of previously used solutions Explores all aspects of the environment with fine and gross motor skills Turns objects to find functional side Examines objects (6–12 months)	Joint referencing, follows gaze of adult (understanding gaze is directed toward something) (9–12 months) Social referencing, looks for emotions of others before acting (7–12 months) Uses preverbal pointing and gestures to communicate Knows one can share and change others' moods Knows movement of others implies actions toward a goal Imitates others' goal-oriented behaviors	Mouths, waves, bangs, shakes, drops, bats, throws objects Means-ends play; knows how to get objects to do what he or she wants (e.g., pulls string to get toy) Combines and matches several objects (e.g., stacks objects, fits piece in puzzle) Games of give-and-take, turn-taking Uses some toys appropriately/functionally (9–12 months) Enjoys games "so big," "catch me," Peekaboo (8–12 months) Tries to make adults laugh with antics

Age Table: Cognitive Development **TPBA 2**

Age level	Attention	Memory	Problem solving	Social cognition	Complexity of play
By 15 months	Sustains interest for 2–5 minutes while looking at named pictures or books Attends to specific physical characteristics of objects	Imitates peers Remembers previous actions of others for months (anticipates what will happen or recreates actions)	Makes plan to achieve goal Keeps searching for hidden objects Places things on top of each other Finds objects behind a barrier	Knows what adult wants and spontaneously offers object Watches adults' actions and anticipates result	Likes putting things in holes Enjoys water play Cares for doll, teddy (e.g., feeds, cuddles, covers) Likes to play near another child Imitates adults' actions with toys
By 18 months	Pays attention to distant objects	Recognizes and can identify pictures and objects by pointing Imitates sounds and words Recognizes familiar places (15–18 months)	Shows purposeful exploration of toys (13–17 months) Uses variety of actions in trial and error to operate toys (13–17 months) Uses adult to activate toy if unsuccessful (13–17 months) Looks for hidden objects with systematic search (12–18 months) Moves, shifts, rearranges, modifies things as desired (12–18 months) Adapts familiar actions to new situations (12–18 months)	Knows what to do to get reaction (e.g., happy, mad) (9–18 months) Can interpret the goal of an adult's simple action (9–15 months, by 18 months) Knows his/her actions cause feelings in self and others Looks to see how others are reacting to their actions Watches adult start a task and can complete the task (knows adult's goal)	Likes toys that activate or "do" something Knows what to do to make another laugh (9–18 months) Begins symbolic play with construction Enjoys stacking objects (up to six) (15–18 months) Autosymbolic play: child pretends to eat, sleep (17–19 months) Uses objects functionally in play (e.g., phone, comb) (17–19 months)
By 21 months	Can follow the attention lead of others (looks at what others look at and does what others do)	Attempts to tell about experience using words and jargon (autobiographical memory) Remembers action sequences for 2 months	Uses real objects functionally to solve problems (e.g., pushes a chair over to get item that is up high) (19–21 months)	Uses direction of speaker's gaze to infer the referent of a word Understands when someone is pretending to eat, drink, and so forth Shows genuine concern for another's distress (12–24 months)	Searches for objects to "go with" other toys (e.g., spoon for bowl, driver for car) Uses objects symbolically in play (18–21 months)

Age Table: Cognitive Development **TPBA 2**

Age level	Attention	Memory	Problem solving	Social cognition	Complexity of play
By 24 months or	<p>2 years</p> <p>Needs help shifting attention from one thing to another</p> <p>Will attend to books for several minutes independently</p> <p>Highly variable attention span depending on stimuli; has preferences for play (18–24 months)</p>	<p>Long-term memory for events, talks about the recent past (gist of events within last 6 months)</p> <p>Remembers strategies seen or used previously (18–24 months)</p> <p>Can dramatize remembered events (18–24 months)</p>	<p>Balances objects on top of each other (18–24 months)</p> <p>Can solve simple problems mentally without trial and error (18–24 months)</p> <p>Can solve a problem with verbal instructions (18–24 months)</p> <p>Can use a tool (manipulative item) to solve a problem (21–24 months)</p>	<p>Knows others have different emotions, likes, dislikes</p> <p>Uses words relating to mental states for self and others (e.g., <i>happy, sad, want, like</i>) (18–24 months)</p> <p>Can differentiate own versus others' desires (18–24 months)</p> <p>Comforts another child (15–24 months)</p> <p>Still takes another child's toys without concern for feelings (12–24 months)</p> <p>Anticipates the consequences of actions if naughty</p>	<p>Begins sharing (12–24 months)</p> <p>Can direct dramatic play to self, doll, and adult (19–22 months)</p> <p>Combines 2 toys in dramatic play (e.g., stirs in bowls, pours from pitcher into cup) (19–22 months)</p> <p>Can dramatize simple 3-step sequence (e.g., feeding doll, putting to bed, saying "nite-nite")</p> <p>Loves chase games</p> <p>Shares humor with others (21–24 months)</p>
By 30 months	<p>Attends to more than one stimulus at a time (several pictures or toys)</p>	<p>Recognizes and labels covers of familiar books</p> <p>Recognizes familiar signs</p> <p>Fills in missing words or corrects adult with familiar rhymes, songs, or stories</p>	<p>Breaks things apart, unwraps, tears, and so forth, investigating (24–30 months)</p> <p>Experiments with putting together and taking apart (24–30 months)</p> <p>Understands that problem solving happens by "thinking"</p>	<p>Uses the word "pretend"</p> <p>Uses words "think" and "know" to refer to thoughts and beliefs</p> <p>Knows one can feel different in different situations</p> <p>Shows empathy</p> <p>Incorporates others into dramatic play and understands what other intends</p>	<p>Likes block play (e.g., stacking, knocking down, simple construction) (25–30 months)</p> <p>Likes filling, pouring, dumping (24–30 months)</p> <p>Begins fantasy and make-believe play (24–30 months)</p> <p>Dramatizes roles in familiar routines using realistic toys (24–30 months)</p> <p>Multistep sequences in dramatic play with others (25–30 months)</p> <p>Has dolls or action figures "perform" sequences and interact</p>

(continued from previous page)

Age Table: Cognitive Development **TPBA.2**

Age level	Attention	Memory	Problem solving	Social cognition	Complexity of play
By 30 months	Attends to more than one stimulus at a time (several pictures or toys)	Recognizes and labels covers of familiar books Recognizes familiar signs Fills in missing words or corrects adult with familiar rhymes, songs, or stories	Breaks things apart, unwraps, tears, and so forth, Investigating (24–30 months) Experiments with putting together and taking apart (24–30 months) Understands that problem solving happens by “thinking”	Uses the word “pretend” Uses words “think” and “know” to refer to thoughts and beliefs Knows one can feel different in different situations Shows empathy Incorporates others into dramatic play and understands what other intends	Likes block play (e.g., stacking, knocking down, simple construction) (25–30 months) Likes filling, pouring, dumping (24–30 months) Begins fantasy and make-believe play (24–30 months) Dramatizes roles in familiar routines using realistic toys (24–30 months) Multistep sequences in dramatic play with others (25–30 months) Has dolls or action figures “perform” sequences and interact
36 months or 3 years	Attends to key aspects of an object or situation and compares to solve problem (e.g., in a puzzle) Attends to amount Looks for and attends to causal mechanisms to figure out how they work	Relates detailed sequences of experience from recent past and can remember events from up to 18 months in the past Remembers fingerplays Remembers visual landmarks Uses fingers to count to aid memory Formulates dramatic play scripts based on remembered routines and events Sings simple songs or rhymes (30–36 months)	Systematically takes objects apart (24–36 months) Understands questions about “why” and “how” things function (33–36 months) Understands position words (e.g., <i>in</i> , <i>on top of</i> , <i>on</i> , <i>under</i>) (33–36 months) Talks about how to solve a problem while working on it (verbal mediation) Uses visual searching to find solutions to problems Tries alternatives when first solutions doesn’t work Can put together 4 to 5-piece interconnected puzzle (30–36 months)	Realizes others’ needs may be different from own (24–36 months) May show signs of guilt if he/she hurts another child (24–36 months) Can distinguish happy emotions better than negative ones (24–36 months) Recognizes that he/she can cause emotional distress in others (24–36 months) Ascribes thoughts and feelings to play figures (31–36 months)	Likes to play with small items such as buttons, knobs, beads (31–36 months) Plays tag, hide-and-seek Enjoys making music and likes to dance (31–36 months) Plays through a sequence of events in common routines (e.g., feeding baby, washing, putting to bed) Dramatizes simple songs, scenes from books, movies Likes to dress up to role play (30–36 months) Plays more than one role (e.g., mother–baby, doctor–patient) (31–36 months) Acts out pretend play with others Ascribes thoughts and feelings to play figures Logically ties two or more complex thoughts and feelings together in play Finds humor in bathroom words Symbolic play with unrealistic substitutions for props

(continued from previous page)

Age Table: Cognitive Development **TPBA.2**

Age level	Attention	Memory	Problem solving	Social cognition	Complexity of play
By 42 months	Attends to directionality (e.g., in arranging blocks, puzzle pieces) Attends to degree of difference (organizes by size, shape)	Remembers one of several objects shown and then hidden (36–42 months) Repeats 4 or more word-sentences containing adjectives (36–42 months)	Puts things together, shows imagination (36–42 months) Organizes toys, pictures by relationship to each other Knows what does <i>not</i> go together Uses diverse materials to create something Understands what to do in specific situations Self-initiates, plans, and organizes problem solving without assistance	Describes own feelings Is aware of people's wants, feelings, and perceptions	Builds, constructs primarily enclosures (36–42 months) Play rituals Likes puzzle play Uses miniatures in dramatic play (e.g., doll house, garage) Prefers play with peers to play with adults Develops a theme in dramatic play
48 months or 4 years	Sustains and controls attention on interesting activities Pays attention to specific visual, auditory, and tactile aspects of objects and situations	Creates dramatic play based on pieces of remembered events and stories from different times and different places Describes familiar objects without seeing them Recalls one to two elements of a story that was just read (42–48 months) Uses past experiences to decide how to act in specific situations	Asks about and identifies "why" and "how" (38–48 months) Puts complex puzzles together (8 to 12-piece interconnected) Sensitive to the effects of gravity in block and ramp play Categorizes by size, type, color, and shape in problem solving	Understands other people have feelings, attitudes, beliefs different from own and can discuss them Can differentiate others' point of view and own Can do "if-then" with regard to others (e.g., "If I do this, then Mommy will be happy, because . . .")	Begins coordinated dramatic play among several children with complex themes Builds 3-D block structures that are representational Plays simple card or board games with adult assistance Plays group games
54 months	Attends to more than one characteristic of an object or picture (e.g., shape and color, color and size)	Recalls 3–4 elements of a story without prompts (48–54 months) Sings songs or rhymes of at least 30 words (48–54 months) Determines what parts are missing in pictures, puzzles, toys Recognizes and names a familiar song when sung	Recreates complex patterns with blocks Creates a dramatic play area out of a variety of materials Describes how to do something Thinks up new uses for objects	Explains to others what will happen if they do something Asks questions to understand what another person thinks or feels	Creates representations with clay, sand, and so forth (48–54 months) Rhyming words (e.g., "teenie, weenie") (48–54 months) Laughs at funny words, word play Discusses and negotiates roles and actions in dramatic play Builds on other children's play (48–54 months)

Age Table: Cognitive Development **TPBA 2**

Age level	Attention	Memory	Problem solving	Social cognition	Complexity of play
36 months or 3 years	<p>Attends to key aspects of an object or situation and compares to solve problem (e.g., in a puzzle)</p> <p>Attends to amount</p> <p>Looks for and attends to causal mechanisms to figure out how they work</p>	<p>Relates detailed sequences of experience from recent past and can remember events from up to 18 months in the past</p> <p>Remembers fingerplays</p> <p>Remembers visual landmarks</p> <p>Uses fingers to count to aid memory</p> <p>Formulates dramatic play scripts based on remembered routines and events</p> <p>Sings simple songs or rhymes (30–36 months)</p>	<p>Systematically takes objects apart (24–36 months)</p> <p>Understands questions about “why” and “how” things function (33–36 months)</p> <p>Understands position words (e.g., <i>in</i>, <i>on top of</i>, <i>on</i>, <i>under</i>) (33–36 months)</p> <p>Talks about how to solve a problem while working on it (verbal mediation)</p> <p>Uses visual searching to find solutions to problems</p> <p>Tries alternatives when first solutions don’t work</p> <p>Can put together 4- to 5-piece interconnected puzzle (30–36 months)</p>	<p>Realizes others’ needs may be different from own (24–36 months)</p> <p>May show signs of guilt if he/she hurts another child (24–36 months)</p> <p>Can distinguish happy emotions better than negative ones (24–36 months)</p> <p>Recognizes that he/she can cause emotional distress in others (24–36 months)</p> <p>Ascribes thoughts and feelings to play figures (31–36 months)</p>	<p>Likes to play with small items such as buttons, knobs, beads (31–36 months)</p> <p>Plays tag, hide-and-seek</p> <p>Enjoys making music and likes to dance (31–36 months)</p> <p>Plays through a sequence of events in common routines (e.g., feeding baby, washing, putting to bed)</p> <p>Dramatizes simple songs, scenes from books, movies</p> <p>Likes to dress up to role play (30–36 months)</p> <p>Plays more than one role (e.g., mother–baby, doctor–patient) (31–36 months)</p> <p>Acts out pretend play with others</p> <p>Ascribes thoughts and feelings to play figures</p> <p>Logically ties two or more complex thoughts and feelings together in play</p> <p>Finds humor in bathroom words</p> <p>Symbolic play with unrealistic substitutions for props</p>

Transdisciplinary Play-Based System (TPBA2/TPB12)

by Toni Linder.

Copyright © 2008 Paul H. Brookes Publishing Co., Inc. All rights reserved.

(page 6 of 8)