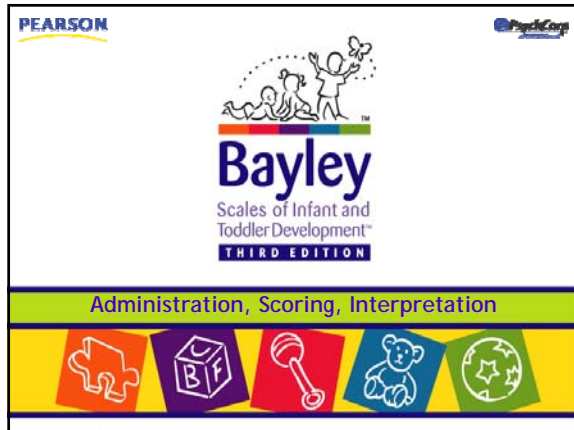


Bayley Scales of Infant and Toddler Development - Third Edition
Gloria Maccow, Ph.D., Assessment Training Consultant



Bayley
Scales of Infant and Toddler Development
THIRD EDITION

Agenda

- ♦ Describe the BAYLEY scales.
- ♦ Demonstrate the administration and scoring of items.
- ♦ Explain how to use the tables in the manual to convert raw scores to standard scores.
- ♦ Discuss interpretation and use of BAYLEY-III results.


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Bayley
Scales of Infant and Toddler Development
THIRD EDITION

What is the Bayley?


- ♦ individually administered instrument
- ♦ assesses developmental functioning
 - infants & young children
 - between 1 month and 42 months of age

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 **Primary Purposes of Bayley-III**


- ♦ identify children with developmental delay
- ♦ provide information for intervention planning

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 **Bayley-III Applications**

- ♦ Well-suited for multidisciplinary and arena assessment teams
 - Cognitive, Language, and Motor Scales can be administered independently
- ♦ Assist practitioner in intervention planning
- ♦ Chart a child's progress after initiation of an intervention program

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 **Bayley-III Applications**

Involvement of parent/caregiver is advantageous

- ♦ facilitate testing
- ♦ provide parents further insight

Research tool

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Who Uses the Bayley?

Professionals with different areas of specialization who are familiar with

- assessment procedures for young children
- basic measurement/assessment principles
- child development

For example, early interventionists, SLPs, OTs, PTs, Pediatric Nurse Practitioners, Psychologists

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**TECHNICAL
STRUCTURE**

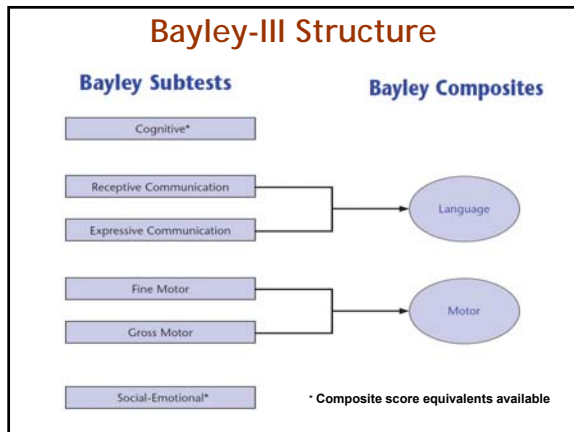
Bayley
Scales of Infant and Toddler Development

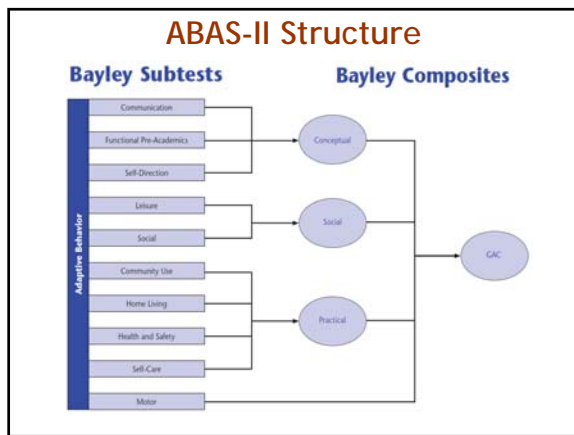
Five Distinct Scales

Five major areas of development

- Cognitive
- Communication
- Physical
- Social/Emotional
- Adaptive

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Cognitive Scale

The Cognitive Scale is comprised of 91 items that assess:

- ◆ Sensorimotor development
- ◆ Exploration and manipulation
- ◆ Object relatedness
- ◆ Concept formation
- ◆ Memory

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Play and Cognitive Development

- ♦ Play promotes cognitive growth (e.g., Piaget, 1952).
- ♦ Vygotsky (1978) - play contributes to child's ability to understand and develop symbols.

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Cognitive Development


6 Months	Plays with single object - banging it
9 months	Relational acts emerge (e.g., placing spoon in cup; placing lid on pot)
2 years	Symbolic play (e.g., pretend to drink from a cup)
36 months	Symbolic play more complex (e.g., pretend to call someone on make-believe telephone)

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Language Scale

- ♦ Language Scale composed of:
 - ♦ receptive communication
 - ♦ expressive communication
- ♦ Some Bayley-II (BSID-II) Mental Scale items moved to the Language scale
 - ♦ identified by content experts as measuring primarily language skills
- ♦ Additional items adapted from the *PLS-4*



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Receptive Communication

49 items that assess:

- ♦ pre-verbal behaviors
- ♦ vocabulary development
 - as being able to identify objects & pictures that are referenced
- ♦ vocabulary related to morphological development
 - such as pronouns and prepositions
- ♦ understanding of morphological markers
 - such as plural *-s*, tense markings (*-ing*, *-ed*), and the possessive *-’s*
- ♦ items that measure children’s social referencing and verbal comprehension

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Expressive Communication

48 items that assess:


- ♦ pre-verbal communication:
 - babbling, gesturing
 - joint referencing & turn taking
- ♦ Vocabulary development:
 - naming objects, pictures,
 - naming attributes (e.g., color and size)
- ♦ morpho-syntactic development
 - using two-word utterances
 - plurals, and verb tense

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Motor Scale

- ♦ Motor Scale composed of:
 - ♦ Fine motor subtests
 - ♦ Gross motor subtests
- ♦ Some items from the BSID-II Motor Scale and Mental Scale moved to fine or gross motor skills
- ♦ New items added:
 - ♦ expand the coverage across age
 - ♦ provide greater content coverage (e.g., increased focus on quality of movement).




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Fine Motor

Comprised of 66 items:

- prehension
- perceptual-motor integration
- motor planning and speed
- visual tracking
- reaching
- object grasping
- object manipulation
- functional hand skills
- responses to tactile information




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Gross Motor

Comprised of 72 items:

- Movement of the limbs and torso
- Static positioning (e.g., sitting, standing)
- Dynamic movement, including locomotion & coordination
- Balance
- Motor planning




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Social-Emotional Scale

Is Greenspan Social-Emotional Growth *Chart with scaled scores*. Assesses

- self-regulation and interest in the world
- communicating needs
- engaging others and establishing relationships
- using emotions in an interactive purposeful manner
- using emotional signals or gestures to solve problems



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Adaptive Behavior Scale

Caregiver information from Adaptive Behavior Assessment System-Second Edition

Skill areas include:

- communication
- community use
- self-care
- pre-academics
- social
- health & safety
- leisure
- self-direction
- home living
- motor




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Adaptive Behavior Scale

The scores for all skill areas combine to form the General Adaptive Composite (GAC), an overall measure of the child's adaptive development.



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Bayley-III Standardization

- Ages 16 days to 42 months 15 days
- Standardization Sample n = 1,700
- Social-Emotional Scale n = 456
- Adaptive Behavior Scale n = 1350
- National sample stratified by:
 - age, sex, race/ethnicity
 - parent education level, geographic region
- Validity studies with clinical groups
- Comparison studies with major tests

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Average Reliability

Cognitive	.91
Language	.93
Motor	.92
Social-Emotional	.90
GAC	.97

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ADMINISTRATION



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Completing Cover Page of Record Form

In upper right hand portion of the page

- ♦ record all pertinent demographic information available about the child
- ♦ Calculate the child's chronological age - adjusting for prematurity as necessary

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Calculating Age

Chronological age must be calculated to determine the start points for subtest administration:

- ◆ record the date of testing
- ◆ record the child's date of birth
- ◆ record the child's age
- ◆ convert years, months, and days to age in months and days

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Calculating Age

Calculate Age and Start Point			
	Years	Months	Days
Date Tested	2004 2005	12 +	40 10
Date of Birth	2003	9	20
Age	1	3	20
Age in Months and Days	Years × 12 12 × 3 + months	15	20
Adjustment for Prematurity	Adjust through 24 months	3	14
Adjusted Age		12	6
Start Point	Calculate start point according to chart below		I

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Adjustment for Prematurity

Adjust for the child's prematurity through 24 months of chronological age.

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Adjustment for Prematurity

Two Stage Process:

- ♦ subtract child's date of birth from the expected date of birth
 - enter number of months and days in the row labeled *Adjustment for Prematurity*
- ♦ subtract adjustment for prematurity from child's age to obtain the Adjusted Age

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Start Points

Using chart on cover page of Record Form:


Locate the letter in the *Start Point* column that corresponds with the child's age in months and days

- ♦ adjusted age, if applicable

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Table 2.1 Bayley-III Start Points Determined by Age in Months and Days


Age	Start Point
16 days-1 month 15 days	A
1 month 16 days-2 months 15 days	B
2 months 16 days-3 months 15 days	C
3 months 16 days-4 months 15 days	D
4 months 16 days-5 months 15 days	E
5 months 16 days-6 months 15 days	F
6 months 16 days-8 months 30 days	G
9 months 0 days-10 months 30 days	H
11 months 0 days-13 months 15 days	I
13 months 16 days-16 months 15 days	J
16 months 16 days-19 months 15 days	K
19 months 16 days-22 months 15 days	L
22 months 16 days-25 months 15 days	M
25 months 16 days-28 months 15 days	N
28 months 16 days-32 months 30 days	O
33 months 0 days-38 months 30 days	P
39 months 0 days-42 months 15 days	Q

 **Reversal Rule**

The reversal rule for Cognitive, Language, & Motor scales is identical:


- score of 1 on the first three consecutive items at age-specific start point to go forward (i.e., achieve the basal).
- if a score of 0 on any of the first three items, go back to the start point for the previous age.

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 **Reversal Rule**


- reversal rule applies to new start point. Continue to apply rule until child passes first three items at start point of any age.
- administer items in a forward direction until discontinue criterion is met.
- do not re-administer any items.

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 **Discontinue Rule**


- ♦ Stop administration when child has received scores of 0 for five consecutive items
 - ♦ i.e., the ceiling has been achieved
- ♦ Previously administered and failed items that resulted in applying reverse rule count toward the discontinue rule.

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 **Timing**

- ♦ Some items require stopwatch timing
 - ♦ when required, a stopwatch will be listed as one of the materials
- ♦ Score only what the child accomplishes within the time limit.
 - ♦ however - allow child to complete a task (e.g., puzzles) if nearing completion but the time limit already reached


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 **Multiple Responses**

Some items require multiple responses:

- ♦ for those items, check boxes are provided to indicate when child responded correctly
- ♦ be sure to read the scoring criteria to determine when child should receive a score of 1 for that item


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 **Left and Right Administration**

Items that require administration on the left and the right side are referring to the child's left and right.


- ♦ for some items, you need to indicate when the child was successful on administrations to the left and to the right
- ♦ be sure to read scoring criteria to determine if the child receives a score of 1 for that item

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 **Trials**

- ♦ Administration directions contain:
 - ♦ number of times an item may be administered
 - ♦ or the number of trials that may be presented
- ♦ For series items it is important that you administer **all** trials. Scoring criteria for items later in the series are more stringent.

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 **Series Items**


Several items have the same administration directions, but require varying levels of performance to meet the scoring criteria.

- ♦ items were selected as part of a series when the administration directions for those items are parallel

For items that are part of a series:

- ♦ only items in the series that fall between the child's start point and discontinue point are scored.

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 **Subtest and Item Order**

- ♦ Within each subtest, follow the item administration order
- ♦ Items within each subtest are grouped by difficulty
 - ♦ child should experience success at beginning of each subtest
- ♦ The examiner can determine the order in which to administer the subtests
 - ♦ e.g., begin testing with Fine Motor subtest
- ♦ But -- administer Receptive Communication subtest prior to Expressive Communication subtest.

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Positioning




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Level supine

The child is lying on his or her back on a level (flat) surface.

The child may be on a firm level surface such as a padded exam table or on a mat on the floor.





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Elevated Supine



The child is in the supine position with his or her head and trunk fully supported and slightly elevated.



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Holding/Positioning Equipment



The child may be supported in an infant carrier/ seat, on a wedge, or with other equipment and elevated (semi-reclined) to about 15°-25° upright.



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Cradled


The child is supine, held snugly with the adult's arm and trunk.



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Bayley Scales of Infant and Toddler Development
Holding/Positioning Equipment

The child is supported in an infant carrier/seat or other positioning equipment with head and trunk fully supported.
The equipment is elevated to a near-upright position (approximately 60°-70°).




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Seated

- Child is seated at a table surface.
- Seating should be correct fit to table height.
- May sit in an adult's lap facing table surface.
- Should demonstrate good sitting stability for seated activities.
- Stability can be provided through external positioning assistance typically used by child.




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Supported sitting

The child is sitting upright in the caregiver's lap:

- with his or her head and trunk supported against the caregiver's trunk
- with the caregiver providing additional support as needed using his or her arms and hands




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Social sitting

- Can choose from a variety of options
 - sitting in chairs or on the floor
 - side by side or facing each other
 - with or without a table surface
 - may both face forward, child in caregiver's lap
 - may sit in similar or different sized chairs
- Any mutually agreeable sitting arrangement is acceptable.




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Floor sitting

- Child is sitting on the floor
 - the surface should be cushioned or padded, yet firm and stable.
- Child may sit with his or her legs bent (ring or tailor sitting), straight (long leg sitting) or in a variation of these.





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Prone

The child is lying on his or her stomach.




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Standing

The child is standing, either alone or with support, as indicated in the item directions.



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Supported at shoulder

The child is placed in a vertical position at adult's shoulder.





- place your hands under child's armpits and spread your fingers across child's back to support him or her
- hold child facing you with his or her head resting on your shoulder

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Upright

Child should be lifted in a vertical position with his or her feet on the exam surface.



- place your hands under child's armpits
- spread your fingers around child's trunk to support him or her

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Item Administration



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Age and Start Point

Calculate Age and Start Point			
	Years	Months	Days
Date Tested	2009	3	29
Date of Birth	2007	3	27
Age	2	0	2
Age in Months and Days	Years x 12 24 months	0 months	24 days
Adjustment for Prematurity	Adjust through 24 months	—	—
Adjusted Age	—	—	—
Start Point	Calculate start point according to chart below		

Age	Start Point
16 days-1 month 15 days	A
1 month 16 days-2 months 15 days	B
2 months 16 days-3 months 15 days	C
3 months 16 days-4 months 15 days	D
4 months 16 days-5 months 15 days	E
5 months 16 days-6 months 15 days	F
6 months 16 days-8 months 30 days	G
9 months 0 days-10 months 30 days	H
11 months 0 days-13 months 15 days	I
13 months 16 days-16 months 15 days	J
16 months 16 days-19 months 15 days	K
19 months 16 days-22 months 15 days	L
22 months 16 days-25 months 15 days	M
25 months 16 days-28 months 15 days	N
28 months 16 days-32 months 30 days	O
33 months 0 days-38 months 30 days	P
39 months 0 days-42 months 15 days	Q

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Age and Start Point

Calculate Age and Start Point			
	Years	Months	Days
Date Tested	2011	01	15
Date of Birth	2009	11	30
Age			
Age in Months and Days	Years x 12	0 months	
Adjustment for Prematurity	Adjust through 24 months		
Adjusted Age			
Start Point	Calculate start point according to chart below		

Age	Start Point
16 days-1 month 15 days	A
1 month 16 days-2 months 15 days	B
2 months 16 days-3 months 15 days	C
3 months 16 days-4 months 15 days	D
4 months 16 days-5 months 15 days	E
5 months 16 days-6 months 15 days	F
6 months 16 days-8 months 30 days	G
9 months 0 days-10 months 30 days	H
11 months 0 days-13 months 15 days	I
13 months 16 days-16 months 15 days	J
16 months 16 days-19 months 15 days	K
19 months 16 days-22 months 15 days	L
22 months 16 days-25 months 15 days	M
25 months 16 days-28 months 15 days	N
28 months 16 days-32 months 30 days	O
33 months 0 days-38 months 30 days	P
39 months 0 days-42 months 15 days	Q

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Age and Start Point

Calculate Age and Start Point			
	Years	Months	Days
Date Tested	2010 2011	12 01	45 15
Date of Birth	2009	11	30
Age	1	1	15
Age in Months and Days	Years x 12 12 months	1 month	13 days
Adjustment for Prematurity	Adjust through 24 months	1	14
Adjusted Age	12	1	
Start Point	Calculate start point according to chart below		



Age	Start Point
16 days-1 month 15 days	A
1 month 16 days-2 months 15 days	B
2 months 16 days-3 months 15 days	C
3 months 16 days-4 months 15 days	D
4 months 16 days-5 months 15 days	E
5 months 16 days-6 months 15 days	F
6 months 16 days-8 months 30 days	G
9 months 0 days-10 months 30 days	H
11 months 0 days-13 months 15 days	I
13 months 16 days-16 months 15 days	J
16 months 16 days-19 months 15 days	K
19 months 16 days-22 months 15 days	L
22 months 16 days-25 months 15 days	M
25 months 16 days-28 months 15 days	N
28 months 16 days-32 months 30 days	O
33 months 0 days-38 months 30 days	P
39 months 0 days-42 months 15 days	Q

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Start Point and Item

Cognitive Scale
Start Point I = Item 31



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Typical Cognitive Development 12-24 months

Play

- Relational acts (e.g., placing a spoon in a cup; putting a lid on a pot).
- By 2 years, incorporate symbolic or pretend play – pretend to drink from a cup, put dolls to bed.

Information Processing



- Child searches for object that has been completely hidden from view.
- By 2 years, child is able to find a hidden toy even after it has been displaced from the original point of disappearance.

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Start Point and Item

Language Scale
RC Start Point I = Item 8
EC Start Point I = Item 7



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Typical Language Development 12-24 months

Receptive Communication

- Respond to words and short phrases (e.g. simple questions and commands in familiar contexts)
- Receptive vocabulary about 50 words
- Assess comprehension without contextual cues

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Bayley
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Typical Language Development 12-24 months

Expressive Communication


- First words (animals, food, toys) appear around 1 year of age.
- Between 1 and 2, explosion in number of words child understands and produces.
- When vocabulary reaches 50-100 words, child begins to produce two-word combinations. Almost all 2-year olds produce two-word combinations.
- Gestures appear shortly before first birthday - e.g., lip-smacking to indicate hunger, waving bye-bye when leaving.

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Start Point and Item

Motor Scale
FM Start Point I = Item 22
GM Start Point = Item 35



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**Typical Motor Development
12-24 months**

1 to 1 ½ years
creeps up stairs, walks (10-20 min), makes lines on paper with crayon.

1 ½ to 2 years
runs, kicks a ball, builds 6 cube tower.

Age 2
Walks well, goes up and down steps alone, runs, seats self on chair, becoming independent in toileting, uses spoon and fork, imitates circular stroke, turns pages singly, kicks ball, attempts to dress self, builds tower of six cubes.

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QUESTIONNAIRES

**Social-Emotional & Adaptive
Behavior Questionnaire**


- ♦ complete the basic information on the cover page
- ♦ identify the appropriate start and stop points for the sections and skill areas within the Questionnaire

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 **Completing Cover Page of Questionnaire**


- ◆ Record all pertinent demographic information available about the child.
- ◆ Calculate the child's chronological age, adjusting for prematurity as necessary.
- ◆ Record any general observations and notes in the Comments area on page 15 of the Questionnaire.

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 **Calculating Age**

- ◆ Follows the same guidelines as those used to calculate age on the Bayley-III Record Form, including the adjustment for prematurity.
- ◆ For the Questionnaire, only the age in months is needed to determine stop points and calculate scaled scores.
 - ◆ Do not round days of age upward to the nearest month.


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 **Start Points & Stop Points**

Social-Emotional Scale


- ◆ regardless of the child's age, start with Item 1
- ◆ caregiver should complete each item in the Social-Emotional Scale until he or she reaches the child's age-appropriate stop point, noted within the section

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 **Start Points & Stop Points**

Adaptive Behavior Scale
must be completed in its entirety by caregiver, with exception of three skill areas for children ages birth-11 months. Skill areas not relevant for this age group are Functional Pre-Academics, Home Living, and Community Use

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 **Completing the Caregiver Report**


- Designed to facilitate communicating to parent or caregiver the child's performance on the Bayley-III.
- Contains a description of assessment, including types of items typically measured within each subtest.
- Includes additional information to assist caregiver in understanding children's development and interpreting Bayley-III scores.

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SCORING




 **Calculating Total Raw Scores**

Total Raw Scores for Subtests in Record Form - Cog, Com, Motor


- for each subtest, count total number of items for which child receives credit (i.e., 1 point)
- along with the number of unadministered items preceding the basal.

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 **Scaled Scores**


- Are available for all subtests
- Are derived from the subtest total raw scores
- Range from 1-19, with a mean of 10 and a standard deviation (*SD*) of 3.

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 **Calculating Scaled Scores**


- Transfer all total raw scores to the Summary Scores table found on the cover page of the Record Form.
- For the Cognitive Scale and Language and Motor subtests, use Table A.1 to determine scaled scores.
- To determine the scaled score for Social-Emotional Scale, use Table A.2.
- To determine scaled scores for Adaptive Behavior skill areas, use Table A.3.

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 **Composite Scores**


- ♦ Derived from various sums of subtest scaled scores.
- ♦ Generated for the Language Scale, Motor Scale, and the Adaptive Behavior Scale (the GAC score).
- ♦ Scaled to a metric with a mean of 100 and a SD of 15, and range from 40-160.
- ♦ Composite score equivalents are available for the Cognitive and Social-Emotional scales

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 **Composite Scores**


- ♦ For Cognitive & Social-Emotional composite score equivalents, use Table A.5
- ♦ For Receptive Communication & Expressive Communication subtests:
 - ♦ sum the scaled scores and,
 - ♦ record the total in the box marked *Sum* directly below the scaled scores.
- ♦ Repeat for Motor scaled scores, then for Adaptive Behavior scaled scores.

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 **Composite Scores**


- ♦ Use Table A.4 to look up the composite score that matches the sum of scaled scores for Language and Motor Scales.
- ♦ For the GAC, use Table A.6.

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 **Percentile Ranks**


- ◆ Available for all five scales
- ◆ Indicates percentage of individuals in standardization sample, at a given age, who obtained scores less than or equal to a given scaled score or composite score
- ◆ Percentile ranks range from 1 to 99, with 50 as the mean and median.

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 **Determining Percentile Ranks and Confidence Intervals**

Tables A.5–A.8 are used to determine the percentile ranks and confidence intervals (at the 90% or 95% confidence level) for Cognitive, Language, Motor, Social-Emotional, and GAC scales.

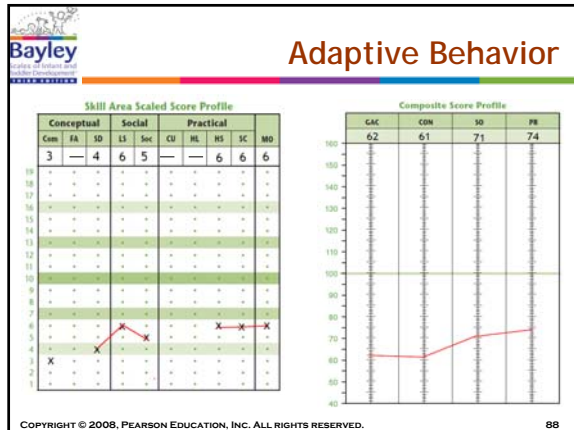
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 **Completing Summary Pages**

The summary pages contain space to record the child's:

- ◆ subtest total raw scores & scaled scores
- ◆ composite scores
- ◆ percentile ranks
- ◆ confidence intervals
- ◆ plot the child's performance graphically
- ◆ perform discrepancy comparisons

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Discrepancy Comparisons

Calculate discrepancies between subtest scaled scores to determine:

- whether differences between subtests are statistically significant (critical values) and,
- how frequently discrepancy occurred in standardization sample (base rate)

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Discrepancy Comparisons

Comparisons can be made between any pair of subtests:

- Cognitive
- Receptive Communication
- Expressive Communication
- Fine Motor
- Gross Motor
- Social-Emotional

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Bayley Scales of Infant and Toddler Development - Third Edition
 Gloria Maccow, Ph.D., Assessment Training Consultant

Discrepancy Comparisons

Discrepancy Comparisons							Statistical Significance Level
Subtests	Scaled Score 1	Scaled Score 2	Difference	Critical Value	Significant Difference (Y) or (N)	Base Rate to Misclassification Sample	α .05
Cognitive vs. Receptive	6	7	-1	2.98	N		
Cognitive vs. Expressive	6	4	2	2.72	N		
Cognitive vs. Fine Motor	6	5	1	2.95	N		
Cognitive vs. Gross Motor	6	8	-2	2.61	N		
Cognitive vs. Social-Emotional	6	4	2	2.70	N		
Receptive vs. Expressive	7	4	3	3.06	N		
Receptive vs. Fine Motor	7	5	2	3.27	N		
Receptive vs. Gross Motor	7	8	-1	2.96	N		
Receptive vs. Social-Emotional	7	4	3	3.05	N		
Expressive vs. Fine Motor	4	5	-1	3.03	N		
Expressive vs. Gross Motor	4	8	-4	2.69	Y	13.2	
Expressive vs. Social-Emotional	4	4	0	2.79	N		
Fine Motor vs. Gross Motor	5	8	-3	2.93	Y	19.2	
Fine Motor vs. Social-Emotional	5	4	1	3.02	N		
Gross Motor vs. Social-Emotional	8	4	4	2.68	Y	17.6	

Bayley Scales of Infant and Toddler Development
Total Raw Scores Social-Emotional & Adaptive Behavior

Sum the behavior frequencies

- 0, 1, 2, 3, 4, or 5 for the Social-Emotional items
- 0, 1, 2, or 3 for Adaptive Behavior items
- record total in the box marked *Total raw score*
- the Sensory Processing score from the Social-Emotional Scale is calculated by summing the behavior frequencies for Items 1-8

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Sensory Processing Total Raw Score



Social-Emotional Scale Stanley I. Greenpan, M.D.

This scale is designed to measure how well your child has met certain social-emotional milestones for his or her age. Please note that this section has specific stop points, based on your child's age. For each question, circle the number in the column that best describes how often you observe the behavior in your child. Circle **only one** number for each question. Respond to all items until you reach the stop point for your child's age. If your child has not displayed the behavior, please circle 0 for **Can't tell**.

	Behavior Frequency				
	Can't tell	None of the time	Some of the time	Half of the time	All of the time
1. Takes a calm and enjoyable interest in most sounds.	0	1	2	3	4 5
2. You can easily get your child's attention without having to be very dramatic.	0	1	2	3	4 5
3. Takes a calm and enjoyable interest in most sights, including colorful or bright things.	0	1	2	3	4 5
4. You can easily get your child to look at things without them being very bright or colorful.	0	1	2	3	4 5
5. Calmly enjoys touching or being touched by different things.	0	1	2	3	4 5
6. You can easily get your child to respond to your touch without having to touch your child firmly to get his or her attention.	0	1	2	3	4 5
7. Likes to be swung around, danced with while in your arms, or quickly lifted up in the air.	0	1	2	3	4 5
8. You can easily get your child's attention by approaching him or her, or moving him or her around slowly.	0	1	2	3	4 5
For Sensory Processing Score calculations, total the scores for Items 1-8.					32 (8)
9. You can help your child to calm down.	0	1	2	3	4 5
10. Looks at interesting sights, such as your face or a toy.	0	1	2	3	4 5
11. Looks at or turns toward interesting sounds.	0	1	2	3	4 5

Stop here if your child is 0-3 months old.

Raw Score = 44

Adaptive Behavior Skill Area
Total Raw Score

	Behavior Frequency				Check if you parent
	Is not able	Rare when asked	Sometimes when asked	Always when asked	
1. Looks at others' faces when they are talking.	0	1	2	3	<input type="checkbox"/>
2. Laughs when a parent or other person laughs.	0	1	2	3	<input type="checkbox"/>
3. Raises and lowers voice to express different feelings or needs.	0	1	2	3	<input type="checkbox"/>
4. Cries or fuses when upset.	0	1	2	3	<input type="checkbox"/>
5. Raises voice to get attention.	0	1	2	3	<input type="checkbox"/>
6. Says the names of other people (e.g., Mama, Daddy, or friends' names).	0	1	2	3	<input type="checkbox"/>
7. Shakes head or says "Yes" or "No" in response to a simple question (e.g., "Do you want something to drink?").	0	1	2	3	<input type="checkbox"/>
8. Points to common items in a room when asked (e.g., "Show me the TV").	0	1	2	3	<input type="checkbox"/>
9. Listens closely for at least one minute when people talk.	0	1	2	3	<input type="checkbox"/>
10. Repeats words others say (e.g., says "baby" when an adult says "baby").	0	1	2	3	<input type="checkbox"/>
11. Says the name of an object clearly enough so that others recognize it (e.g., ball, dog, or cup).	0	1	2	3	<input type="checkbox"/>
12. Follows simple commands (e.g., "No," or "Come here").	0	1	2	3	<input type="checkbox"/>
13. Follows simple directions that include over or under (e.g., "Put your hands over your head").	0	1	2	3	<input type="checkbox"/>
14. Sings all or part of the words to songs.	0	1	2	3	<input type="checkbox"/>
15. Makes plurals of words by adding an -s (e.g., shoes, socks, or dogs).	0	1	2	3	<input type="checkbox"/>
16. Names 20 or more familiar objects.	0	1	2	3	<input type="checkbox"/>
17. Uses sentences with a noun and a verb.	0	1	2	3	<input type="checkbox"/>
18. Speaks in sentences of six or more words.	0	1	2	3	<input type="checkbox"/>

Total Raw Score (Communication Items 1-25) **8** / 75 Total Possible **0**

Plotting Social-Emotional Growth

The Social-Emotional Growth Chart allows the practitioner and caregiver to see a visual representation of how the child is progressing according to milestones.

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Supplemental Analysis for Social-Emotional Scale

Items 1-8 of the Social-Emotional Scale assess sensory processing capacities:

- e.g., sensitivity to colors/sounds/ touch/ movement called: Total Sensory Processing Score

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Supplemental Analysis for Social-Emotional Scale

- ♦ Table B.5 allows conversion of Total Sensory Processing Score to the age-appropriate category:
 - Full Mastery, Emerging Mastery, or Possible Challenges.
- ♦ Record it in the Supplemental Analysis table by checking the correct box.
- ♦ Note Highest Stage Mastered.

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Supplemental Analysis	Possible Challenges	Emerging Mastery	Full Mastery	Highest Stage Mastered (Scores of Most or All of the time)
Total Sensory Processing Score (Items 1-4): 32	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

Table B.5

Social-Emotional Growth Chart

Emotional Stages

- I. Establishes logical linkages between emotions and ideas
- II. Shows symbols or ideas to represent more than basic needs
- III. Shows symbols or ideas to convey intention or feelings
- IV. Shows a variety of nonverbal emotional signals or gestures to solve problems
- V. Shows a variety of interactive emotional signals or gestures to communicate
- VI. Shows readiness to an interactive emotional response
- VII. Engages in relationships
- VIII. Establishes growing self-regulation and interest in the world

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Interpreting General Adaptive Composite

- ♦ Strong unified single factor of adaptive skills
- ♦ Based on information from all relevant skill areas

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General Adaptive Composite

May not accurately reflect overall adaptive functioning if skill area scaled scores vary considerably

- determine the level of score variability (e.g., scatter)
- calculate the difference between smallest and largest skill area scaled score
- examine Skill Area Scatter within Composites

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Discrepancy Analyses for Adaptive Behavior Scale

Discrepancy comparisons for the Adaptive Behavior Scale domains (Conceptual, Social, and Practical):


- based on the ABAS-II standardization sample;
- can be calculated on the Supplemental Analysis table on page 14 of the Questionnaire.

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Adaptive Behavior Scale Discrepancy Comparisons


Discrepancy Comparisons		Score 1	Score 2	Difference	Critical Value	Significant Difference (Y or N)	Base Rate in Standardization Sample	Statistical Significance Level
Domain Composite								
Conceptual-Social	com	61	71	-10	15.27	N		<input type="checkbox"/> .15
Conceptual-Practical	com	61	74	-13	17.14	N		<input type="checkbox"/> .05
Social-Practical	so	71	74	-3	15.82	N		<input checked="" type="checkbox"/> .05

For discrepancy comparisons, see Tables 8.3 and 8.4.

 **Developmental Age Equivalents**


- ◆ Represent the average age in months at which a given total raw score is typical.
- ◆ Available for Cognitive, Receptive Communication, Expressive Communication, Fine Motor, and Gross Motor subtests.

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 **Developmental Age**

- ◆ There are times when calculating a specific developmental age is required, e.g., when testing severely delayed children outside the typical age range for the Bayley-III.
- ◆ Use Table B.7 to determine Developmental Age.

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 **Scoring Assistant**

Generate Sample Score Report

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Legislative Requirements

- ♦ Education of the Handicapped Act Amendments (1986)
- ♦ Individuals with Disabilities Education Improvement Act of 2004 (IDEA)
 - ♦ five domains: cognitive, communication, physical, social-emotional, and adaptive behavior
 - ♦ requires early assessment and intervention

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Scales of Infant and Toddler Development

Diagnosing Developmental Delay

Several different criteria used:


- ♦ 25% delay in functioning when compared to his or her same age peers
- ♦ standard deviation units below the mean of a reference group
- ♦ performing a certain number of months below chronological age

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 **Diagnosing Developmental Delay**


Bayley-III provides relevant normative and developmental age level information to aid diagnosis of delay.

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 **Assumptions Underlying Bayley-III Interpretation**

- ♦ The examiner determines whether or not test is appropriate instrument for answering the referral question.
- ♦ Any change or adaptation of standard administration procedures necessitates caution in use of quantitative data such as norms or other derived score information.

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 **Assumptions Underlying Bayley-III Interpretation**

Proper interpretation of Bayley-III results requires:

- ♦ familiarity with measurement concepts
- ♦ selection of test scores appropriate for the purpose

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Descriptive Classifications

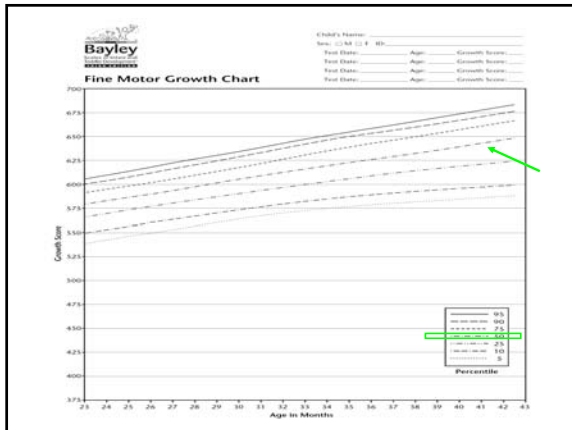
Composite or Composite Score Equivalent	Classification
130 and above	Very Superior
120-129	Superior
110-119	High Average
90-109	Average
80-89	Low Average
70-79	Borderline
69 and below	Extremely Low

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- Bayley**
Scales of Infant and Toddler Development
- ### Caregiver Report
- ◆ Introduces the Bayley-III
 - ◆ Helps caregivers understand their child's performance
 - ◆ Gives recommendations to promote development
 - ◆ Two forms:
 - ◆ informational pamphlet
 - ◆ generated from Scoring Assistant:
 - will include plot of child's composite scores
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- Bayley**
Scales of Infant and Toddler Development
- ### Growth Scores
- ◆ Table B.6
 - ◆ Growth Charts
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 Gloria Maccow, Ph.D., Assessment Training Consultant



Next Steps

- ♦ Study materials
- ♦ Read and re-read administration instructions
- ♦ Practice administration with colleague
- ♦ Practice with infant/toddler
- ♦ Practice scoring and interpretation

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