

Table 1: Common Assessments of Motor Abilities and Movement Skills

Assessments	Ages	Composite Scores / Subtests	Time to Administer	Administration Strategies
Bayley Scales of Infant and Toddler Development - 3rd ed (Bayley, 1969, 1993, 2005) Screening test (2005) Observation checklist (2008)	0 - 5:8	Administered scales: 1) Cognitive 2) Motor 3) Language Subtests (parent questionnaires): 4) Social-emotional 5) Adaptive behaviour Growth (standard) scores Age equivalent scores	30 - 60 min. (less time for younger b/c fewer tasks administered) Screening test can be completed in 15 - 25 min. of observation	Can be administered in child's home or another familiar context; breaks can be taken between scales or as needed to facilitate compliance Much of screening test and checklist can be observed informally while the child interacts / plays with their parent.
Mullen Scales of Early Learning - 2nd ed (Mullen, 1989, 1995)	0 - 5:8	Early Learning Composite: - Fine motor - Visual reception - Expressive language - Receptive language Gross motor subtest Raw scores t-scores Age equivalent scores	30 - 45 min.	Non-verbal problem solving (the visual receptive scale) is considered a good representation of IQ for young children with ASD
Peabody Developmental Motor Scales - 2nd ed (Folio & Fewell, 1983, 2000)	0 - 5:11	Standard / composite scores: 1) Gross motor quotient (GMQ) - Reflexes - Stationary - Locomotion - Object Manipulation	45 - 60 min.	Designed for administration over multiple days or to incorporate breaks as needed. A nice option and strategy in working with young children, including those with ASD.

		2) Fine motor quotient (FMQ) <ul style="list-style-type: none"> - Grasping - Visual-motor integration 3) Total motor quotient (TMQ) Percentile ranks / age equivalents		
Batelle Developmental Inventory (Newborg, 2005; Newborg et al., 1989) BDI Screening Test	0 - 7:11	Total developmental quotient Developmental quotient (standard scores) for each domain: 1) Motor 2) Adaptive 3) Cognitive 4) Personal social 5) Communication Percentiles / Age equivalents	60 - 90 min. 10 - 30 min. for each subtest	Meets 5 areas of IDEA Includes multiple administration methods: 1) Structured (play-based activities using child-friendly objects) 2) Observation (occurs in child's natural settings) 3) Interview (open-ended questions posed to parent, caregiver, or teacher)
Vineland Adaptive Behavior Scales - 2nd ed (Sparrow, Balla, & Cicchetti, 1984; Sparrow, Cicchetti, & Balla, 2005)	0 - 18:11	Subscales: 1) Communication (receptive, expressive, written) 2) Socialization (interpersonal relationships, play and leisure, coping skills) 3) Daily living (person, domestic, community)	30 min.	Parental report or semi-structured interview of behaviours in natural context.
Test of Gross Motor Development - 2nd ed (Ulrich, 2000, 1985)	3:0 - 10:11	Gross Motor Development Quotient	20 - 40 min. for children with ASD	The same skills are assessed across all ages, providing a better indication of progress.

		Raw and standard scores for each subtest: 1) Locomotor skills 2) Object control skills Percentiles / Age equivalents		3 to 5 performance criteria for each skill, reflecting components indicative of mature movement pattern; multiple performance criteria afford children to receive credit for any aspect of movement they are able to perform. Also provides more detailed understanding of movement patterns used versus general outcome measures like distance thrown or how many seconds standing on one foot.
Movement Assessment Battery for Children - 2nd ed (Henderson, Sugden, & Barnett, 2007)	3:0 - 16:11 Age bands: 1) 3 - 6 2) 7 - 10 3) 11 - 16	Total Standard Score Percentiles and cut scores Composite scores: 1) Manual Dexterity 2) Balls skills 3) Balance		Provides measure of accuracy and indication of movement that can occur per unit time. The examiner can use any means to make sure the child understands what is expected of them for each task (i.e., verbal instructions, demonstration, hand over hand practice trial, or combination of strategies).
Movement Assessment Battery for Children Checklist (not revised)	5:0 – 12:11			Checklist provides indication of functioning in natural context

Physical and Neurological Examination for Subtle Signs (Denckla, 1974, 1985)	5:0 - 17:11	Total PANESS score Components: 1) Gaits 2) Stations 3) Timed repetitive movements 4) Timed patterned movements	15 - 20 min.	Sensitive to developmental change No equipment is needed, so it is easy to administer Designed to capture neuromotor functioning
Bruininks-Oseretsky Test of Motor Proficiency - 2nd ed (Bruininks & Bruininks, 1979, 2005) BOTMP Short form	4:0 - 21:11	Overall composite score Percentiles / Age equivalents Composite scores for each subtest: 1) Fine manual control 2) Manual coordination 3) Body coordination 4) Strength and agility	45 - 60 min to administer full BOTMP 15 - 20 min to administer short form	Norms in 2 nd ed. included clinical populations Includes specific instructions for each task Variety of scoring criteria, which affords increased opportunities for success All tasks are assessed across age groups, which provides better indication of development

Note: Age is reported in years:months