



Assessments of Functional Skills

*Occupational Therapy and
Physical Therapy*

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Occupational Therapy and Physical Therapy 2012

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Preface

This assessment guide is designed to provide occupational therapists and physical therapists with recommendations and suggestions for the development and assessment of skills in the educational environment. This guide is to be used by occupational therapists and physical therapists, in conjunction with the student's individual educational plan (IEP) team.

In occupational therapy and physical therapy literature, the terms “evaluation” and “assessment” are sometimes used interchangeably. Typically, evaluation refers to the process of gathering information about the student's educational performance, and assessment refers to the specific tools or methods used to gather the data about the student. For the sake of consistency in this document, the term occupational therapy “assessment” or physical therapy “assessment” will be used as defined by state licensure laws and will apply to both the process of gathering information and the specific tools or methods used to gather information:

- The Florida Practice Act for Occupational Therapy (Part III, Chapter 468, Florida Statutes) defines the term occupational therapy “assessment” as the “use of skilled observation or the administration and interpretation of standardized or nonstandardized tests and measurements to identify areas for occupational therapy services.”
- The Florida Practice Act for Physical Therapy (Chapter 486, Florida Statutes) defines the term physical therapy “assessment” as the “observational, verbal, or manual determinations of the function of the musculoskeletal or neuromuscular system relative to physical therapy, including, but not limited to, range of motion of a joint, motor power, postural attitudes, biomechanical function, locomotion, or functional abilities, for the purpose of making recommendations for treatment.”

The IEP team may use all available data to determine if the student needs therapy services to benefit from special education, for any student who has already been identified as a student with a disability. The IEP team should make this determination based on the student's present levels of academic achievement and functional performance, as well as annual goals, in addition to assessments conducted by a licensed therapist.

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Introduction

Historical Perspective

Occupational therapy and physical therapy are included as “related services” of special education under federal and state laws (Individuals with Disabilities Education Act [IDEA], 2004). The role of the occupational therapist (OT) and physical therapist (PT) in educational settings has evolved along with educational reforms. Rather than simply pulling students out of classes for interventions that may not apply in classrooms, key professionals and families together identify, evaluate, plan, provide varied service delivery models, and reassess how students can best function in various educational settings (Jackson, 2007). Services and assessments focus on the whole student and the student’s environment. The entire team involved with the student collaborates, provides input, and strives to offer interventions, which support and promote success in students’ educational programs and objectives. According to Shepherd (1999, p. 17), school-based therapists, parents, and other members of the educational team must “focus on desired outcomes rather than service delivery models.”

Criteria for Eligibility

Federal Criteria

IDEA provides for the provision of special education for children with disabilities ages 3 through 21, including the related services of occupational therapy and physical therapy. For a related service to be included on the individual educational plan (IEP), the team must determine that the student requires that service to benefit from special education (IDEA, 2004). Hanft and Place (1996) emphasize the important collaborative role of occupational and physical therapists in sharing information with the IEP team based on their knowledge and experience with specific students. When determining the need for occupational therapy or physical therapy services, the IEP team must consider the student’s IEP goals and objectives, the supports needed to achieve these goals, and the recommendations made by the occupational therapist or physical therapist. McEwen (2009) emphasizes the importance of differentiating between “eligibility” for therapy services and “need” for therapy services. Although the student may have a disability that requires private/outside therapy, the student may not need school-based therapy services to benefit from special education. The IEP team determines if the expertise of a therapist is necessary for the student to attain annual IEP goals.

State Criteria

Because OTs and PTs are provided guidance by their practice acts under the Florida Statutes (F.S.), the State Board of Education rule references these statutes. In addition, it outlines procedures for assessment, determination of educational need and references IEPs, educational plans (EPs) and individualized family support plans (IFSP), and plans of treatment or care in the school setting:

6A-6.03024 Provision of Occupational or Physical Therapy to Exceptional Students as a Related Service.

(1) Definitions.

(a) Occupational therapy is defined to mean services provided by a licensed occupational

therapist or a licensed occupational therapy assistant pursuant to the provisions of the Occupational Therapy Practice Act found in Part III, Chapter 468, F.S., and sub-subparagraph 6A-6.03411(1)(dd)3.f., F.A.C.

(b) Physical therapy is defined to mean services provided by a licensed physical therapist or a licensed physical therapist assistant pursuant to the provisions of the Physical Therapy Practice Act found in Chapter 486, F.S., and sub-subparagraph 6A-6.03411(1)(dd)3.i., F.A.C.

(c) Related service provider is defined to mean the licensed occupational or physical therapist responsible for the assessment and provision of school-based occupational or physical therapy as a related service as defined in Section 1003.01(3)(b), F.S., and subparagraph 6A-6.03411(1)(dd)3., F.A.C.

(2) Assessments. Assessments as defined in Section 468.203 or 486.021, F.S., shall be conducted by the related service provider prior to the provision of occupational or physical therapy.

(3) Determination of need for occupational or physical therapy. The individual educational plan (IEP) team in accordance with Rule 6A-6.03028, F.A.C., the educational plan (EP) team in accordance with Rule 6A-6.030191, F.A.C., or the individualized family support plan (IFSP) team, in accordance with Rule 6A-6.03029, F.A.C., shall review assessments conducted by the related service provider and all other relevant data to determine if occupational or physical therapy services are needed to assist a student to benefit from specially designed instruction.

(4) Provision of input to planning teams. The licensed therapist or licensed assistant shall provide input to assist the IEP, EP, or IFSP team when the educational need for occupational or physical therapy as a related service is being determined, and when an IEP, EP, or IFSP for a student who is receiving occupational or physical therapy as a related service is being reviewed by the IEP, EP, or IFSP team.

(5) Plan of treatment. Once the educational need for occupational or physical therapy has been determined in accordance with the provisions of this rule, a plan of treatment as referenced in Section 468.203 or 486.021, F.S., and the corresponding requirement found Rule 64B17-6.001, F.A.C., shall be developed. The plan of treatment may be included as a part of the IEP, EP, or IFSP.

Rulemaking Authority 1001.02, 1003.01(3), 1003.57, 1003.571, F.S. Law Implemented 1003.01(3), 1003.57, 1003.571 F.S. History—New 11-25-80, Amended 2-4-81, Formerly 6A-6.3024, Amended 2-12-91, 9-30-96, 8-22-12.

The Therapist's Role in Educational Settings

Occupational therapists and physical therapists work collaboratively with other members of the IEP team in the areas of screening, assessment, program planning, and designing and implementing interventions. Therapists provide strategies to facilitate participation within the school environment. Interventions may involve teaching and training for families and school personnel, measuring and documenting progress, using technologies to support student success, and assisting students in accessing school environments (American Occupational Therapy Association [AOTA], 2006; American Physical Therapy Association [APTA], 2009). School-based therapists focus on removing barriers from students' ability to learn, helping students develop skills that increase their independence in the school environment, and educating school personnel about the different considerations required for students with disabilities (AOTA, 2006). The therapist evaluates, assesses, and accommodates functional abilities of students in school classrooms, hallways, the playground, the cafeteria, and other designated areas (Jackson, 2007).

The therapist works with teachers to help students acquire functional abilities necessary to access

educational materials and move about the school. To help students function better in classrooms, the lunchroom, or restrooms, therapists may work with them on adapting or modifying their equipment/materials. School-based therapists support participation in activities outside of the school through mobility on field trips, during sports events, on playgrounds, and within the community (McEwen, 2009).

Purpose of Guide

According to IDEA (2004), the purpose of an initial multidisciplinary evaluation is to determine eligibility for exceptional student education and to determine the educational needs of the child. The initial evaluation also gathers baseline information for the development of educational goals and objectives. OTs and PTs may participate in the initial multidisciplinary evaluation by providing information about whether a student has both an impairment and a need for exceptional student education. After eligibility has been determined, the team develops the IEP, including present levels of academic and functional performance, goals and objectives, and which exceptional education services are required. Finally, the IEP team considers the need for occupational therapy and/or physical therapy services to assist the child in benefitting from exceptional student education and if the expertise of an OT or PT may be needed to help the child achieve his IEP goals (Bober & Corbett, 2011).

When the IEP team considers the need for related services, information obtained from occupational therapy and physical therapy assessments assists in establishing the need for occupational therapy and physical therapy interventions within the educational setting. The assessment examines a student's overall ability to function within the school environment and can be used with all students, regardless of their disability. This assessment guide focuses on students in all aspects of their educational environment and, therefore, the assessment needs to be completed by a school-based OT and/or PT.

IDEA specifies that schools must educate children with disabilities in the least restrictive environment, with a preference for educating the child in the general education classroom. To support this process, OTs and PTs assess how the child functions in the context of the classroom, the cafeteria, the halls, the playground, the restroom, the bus, and anywhere else within the naturally occurring school environment. (Bober & Corbett, 2011, p. 28)

Data used to determine educational need for occupational therapy or physical therapy may be obtained through a variety of assessment methods, including the following:

- Records review
- Skilled observations of the student's engagement in typical school environments and activities
- Assessment of environmental barriers and supports for participation and learning in the school environment
- Review of student work samples
- Interviews with the student, teacher(s), parent(s), and community providers
- Completion of standardized assessments of relevant skills, as needed
- Nonstandardized functional performance assessments, such as those found in the this guide

Although standardized assessment tools, such as the School Function Assessment (Coster, Deeney, Haltiwanger, & Haley, 1998), may provide information about the child's functional performance and participation in school, appropriate standardized assessment tools that provide information about the functioning in the educational setting are frequently not available. According to Bober and Corbett

(2011), “No current law or practice requires OTs and PTs to obtain and report test scores as a means to determine eligibility for therapy services.”

The information provided in this guide provides a structured nonstandardized way to gather information about functional performance in the educational setting needed for occupational therapy and physical therapy assessments. The comprehensive assessment tools described in this guide were designed to provide guidance and technical assistance in determining a student’s ability to function within the school environment.

The assessment of functional skills can be used to determine need for occupational therapy and physical therapy and to provide information needed to make decisions about continuation or discontinuation of related services. Discontinuation of services is an IEP team decision and must be based on the needs of the student in relationship to access and participation in the educational setting (Effgen, 2000; Nesbit, 1993). The format of this guide directly correlates with the considerations for educationally relevant therapy (CERT; Florida Department of Education, 2005). The CERT summarizes information obtained from a variety of sources, methods, and tools, including review of records, observations, parent/teacher interviews, progress notes, and other assessment data. The CERT may be used to assist the IEP team in making decisions about continuation or discontinuation of therapy services.

The following evaluations have been designed to further address more specific individual needs:

- Handwriting Assessment
- Transportation Assessments
- Wheelchair Assessments

Also included in the guide are the following Appendices:

- A: Home Environment Information
- B: Teacher/School Environment Checklists
- C: Developmental Skills Guides

Assessment of Functional Skills in the Educational Environment

Instructions

To assist in providing a free appropriate public education (FAPE) for students with disabilities, occupational and physical therapy are related services provided to enable the student to benefit from his or her education. This assessment is designed to provide information about the student's overall functional ability within the school environment, with a focus on what is expected of the student in his/her natural educational environment in comparison with same-age peers. This functional assessment can be used to assist in establishing the need for therapeutic intervention when a student has been initially referred for therapy or as part of an assessment to determine need for continuation or discontinuation of occupational therapy and physical therapy services.

The occupational therapist and/or physical therapist completes each section. It is the components of the task, not the task itself, that are considered differently by each discipline. Information may be obtained through observation or consultation with other professionals. Reporting sources should be noted. Definitions or explanations are provided for items that require clarification.

The first portion of this evaluation includes evaluation type, demographic information, and medical history. Information about previous therapy interventions and concerns should be clearly stated.

The following codes are used in parts of this evaluation.

F	Functional	The student can perform the task with or without adaptive equipment within the educational environment.
S	Supervision/prompts	The student requires adult attention for safety or thoroughness and/or verbal, visual, tactile, or gestural cues to perform the task.
P	Physical assistance	The student requires hands-on assistance to perform all or part of the task.
E	Emerging	The student is beginning to perform part of the task. Moderate to maximum assistance may be needed to complete the task.
N/A	Not applicable	The assessment of this skill is not needed. The student is unable to perform the task due to developmental age, physical limitations, or cognitive ability. The student's needs are addressed through classroom curriculum or other existing services, which may include total assistance by school staff.

General Directions

When another therapist is scoring a section, or when the student is not expected to be able to perform any of the tasks in that section due to developmental age, physical limitations, or cognitive ability, check “Assessment in this area is not indicated at this time.”

Use the codes provided on the first page of these instructions to record the student’s ability levels in the section marked “Code.”

The Comments section may be used to include information about the type of device used to accomplish the task, equipment needed, support provided by adults, etc. Occasionally, a clarifying prompt may be given to indicate the content of the comments. Whenever an item is scored as anything other than functional, an explanatory comment should be written in the comments section.

For items that contain two separate tasks, the code boxes are divided by a slash. Record the student’s performance on the first task above the slash, and on the second task below the slash.

Summarize each section by identifying those factors that interfere with the student’s ability to perform functionally in that area.

Section I. Learning Environment

Each therapist assessing the student completes this section.

The Occupational Therapy Practice Framework: Domain and Process, 2nd Edition (AOTA, 2008) describes how environments and contexts may support or inhibit the child’s ability to successfully participate in educational activities. Gathering information about the student’s ability to function in all aspects of the learning environment is an important part of the assessment process.

This section considers the student’s performance in his/her learning environment, including the classroom, computer and science labs, community-based instruction (CBI) sites, and any other areas for which the primary use to the student is instructional, including the home environment for students who receive hospital/homebound services.

The following are examples of clarifying statements for the table in the Learning Environment section of the assessment tool:

- The chair height is appropriate if the student’s feet rest on the floor when the hips, knees, and ankles are flexed to approximately 90 degrees.
- The desk height is appropriate if the desk surface is two inches above the bent elbow when the student is seated with feet flat on the floor.
- The desk location is accessible if the student’s access to the desk is unobstructed.
- The desk location is functional if the student is able to focus on the teacher and teaching materials and/or receive prompts or cues.
- Storage is accessible if the student is able to get to it without difficulty and can locate, retrieve, and replace materials with ease.

- Adaptive positioning equipment is functional when it allows the student to focus and access his educational environment.
- Assistive technology is functional when it allows the student to access his educational environment.
 - o Low-tech assistive technology devices include pencil grips, slant boards, reachers, visual schedules, highlighters, and adaptive activities of daily living (ADL) equipment
 - o High-tech assistive technology devices include electronic page-turners, laptop computers, electronic or voice output communication devices, voice recognition computer software, etc.
- Student support includes such things as an adult pushing a student in a wheelchair, behavioral reward systems, and individual or small group assistance for any area of learning.
- Accommodations include enlarged materials, shortened assignments, flexible schedule, flexible response mode, use of a calculator, etc.

Section II. Personal Care

This area addresses self-help skills that are necessary in the educational environment.

A. Eating/Feeding Skills

Describe any special diet for the student, such as gluten-free or milk-free, and indicate whether the student eats table food (AOTA, 2009).

Definitions:

- Chewy foods: Includes raisins, many types of meats, licorice, and any other foods that provide some resistance. These foods must be chewed several times in order to be soft enough to be swallowed.
- Chopped foods: Must be cut into very small pieces to minimize the need for chewing. Examples include tiny bits of fruits, vegetables, or meats.
- Crunchy foods: Includes raw carrots, crackers, potato chips, nuts, and any other foods that must be chewed several times in order to be soft and moist enough to be swallowed.
- G-tube: Is a tube or button into which liquids that go directly to the stomach are put.
- Mashed foods: Are processed until smooth, but may contain small lumps.
- Pureed foods: Are processed until smooth, but are primarily liquid.
- Soft foods: May be swallowed without being chewed. Examples include yogurt, gelatin, and applesauce.
- Thickened liquids: Includes milkshakes and some creamy soups. Some liquids are thickened by adding a thickening powder.
- Thin liquids: Includes water, milk, nonpulpy fruit juices, and broth.

Note any unusual food preferences, including foods the student always eats or always avoids and whether the student drools while eating.

The following are examples of clarifying statements for the table in the Personal Care section of the evaluation tool:

- Meal set-up includes opening milk cartons, utensil containers, lunch box, plastic bags or containers, and thermos.
- Meal clean up includes closing food containers, fastening the lunch box, throwing trash away, and returning the tray to its proper location.

B. Hygiene

This area addresses the students' ability to attend to the cleansing of his/her body and access the necessary tools in the educational environment. Assessment in this area included both bladder and bowel control. Information will most likely be obtained from the teacher (AOTA, 2008; Coster et al, 1998).

Definitions:

On toileting schedule: The student is on a toileting schedule and is sent to the bathroom on a set schedule, such as every two hours.

Toilet trained: The student independently anticipates the need and uses the bathroom.

Wears diapers: The student wears diapers as a primary method of toileting.

If the student uses a catheter to empty the bladder, indicate whether he/she does so independently or with assistance.

The following are clarifying statements for the table in the Hygiene section of the evaluation tool:

- Fastener manipulation includes buckling and unbuckling, snapping and unsnapping, buttoning and unbuttoning, zipping and unzipping, etc.
- Managing clothing includes pulling pants, shorts, and underpants up and down; keeping the shirt out of the way; tucking the shirt in; and straightening clothing, etc.
- The type of handle on the faucet and water fountain is noted or should be included in the Comments section.

List any adaptive equipment or modifications the student currently uses for toileting, such as a raised seat, step stool, grab bars, reacher, etc. Note placement of the devices in the Comments section.

Section III. Mobility

This area addresses functional movement (transfers and transitions) and the ability to navigate architectural barriers within the educational environment, including community-based instruction (CBI) sites (American Academy of Pediatrics [AAP], 2008; Bluth, 2009; Coster et al, 1998; Rehabilitation Engineering Research Center on Wheelchair Safety and University of Michigan Transportation Research Institute University of Michigan Health System, 2009).

A. School Bus

Definitions:

Independent: The student can maneuver his/her wheeled mobility device on and off the bus lift without physical assistance.

With assistance or supervision: The student needs physical support or verbal directions to maneuver his/her wheeled mobility device on and off the bus lift.

In both situations, the bus monitor will supervise the process and operate the bus lift for safety.

Name or describe equipment that is transported on the bus with the student, including crutches, wheelchair, walker, assistive technology devices, etc.

It is important to assess the student's sitting posture while the school bus is moving. Note if the student leans to one side, has trouble holding up his/her head, or has trouble maintaining balance on the bus.

Indicate any and all occupant restraint systems used by the student on the bus.

B. School Campus

Definitions:

Walks independently: Walks without support from devices and without holding onto furniture, caregiver, etc.

Walks independently with equipment: Walks with equipment; walks with mobility devices or orthotics

Walks with assistance: Walks with physical assistance by a person, furniture or walls, verbal assistance, and/or supervision

Assistive devices used for mobility include ankle-foot orthoses (AFOs), supra-malleolar orthoses (SMOs), braces, cane, crutches, walker, wheelchair, gait trainer, etc.

Use the codes provided on the first page of these instructions to record the student's ability to manage the distance between the classroom and other locations in uncrowded and crowded conditions (such as when classes are changing or at dismissal). In the area marked "Within Environment," score the student's ability to perform mobility demands within the specified area. If the student is otherwise functional but has decreased endurance, score as "S."

In the next section, use the codes to record the student's ability to manage obstacles commonly encountered on school campuses. For items that contain two separate tasks, the code boxes are divided by a slash. Record the student's performance on the first task above the slash and on the second task below the slash.

C. Classroom Mobility

Use the Comments section to clarify how the student moves, the equipment used, and any modifications made for the student, etc.

D. Manipulation of Mobility Equipment

Use the Comments section to clarify any difficulties the student has in performing the tasks. Record any additional wheelchair equipment the student manipulates, in addition to the locks, joystick or wheels, and positioning belt.

Section IV. Gross Motor

This area addresses functional gross motor skills and postures students need to participate in educational activities (AOTA, 2008; Bruinincks & Bruininks, 2006).

The following are clarifying statements for the table in the Gross Motor section of the evaluation tool:

- In evaluating the student's ability to localize sight or sound by turning head, note in the Comments section any delay in initiating the orienting response and whether the student alerts to stimuli presented on both sides as well as in front of and behind him/her.
- If the student is not fully mobile, record his/her ability to roll to change positions. Note in the Comments section whether the rolling is in one or both directions, performed segmentally, etc.
- Note any increase in tone or drooling with movement.
- Note the floor positions favored by the student and whether the position is functional.
- Note the student's use of a chair back, arm supports, toilet grab bars, or other adaptations for sitting in a chair, using the toilet, or accessing playground equipment.
- Use the Comments section to record the student's balance during various gross motor activities. Is the balance functional, precarious, emerging, etc.?

Be sure to complete the section requesting information about any abnormal movement patterns of fixed postures, whether the student receives adaptive physical education, and/or any adaptations used.

Section V. Fine Motor/Visual Motor

This area addresses visual tracking, visual-perceptual skills, functional fine motor skills, and visual-motor skills needed for functional school performance (Case-Smith & Pehoski, 1992; Erhardt, 1990; 1999).

A. Visual Tracking

Assess the student's ability to track the eyes in all directions. Hold a target, such as a brightly colored eraser on a pencil, approximately 12" from the student's eyes. Tell the student to keep his/her head still while maintaining visual contact with the stimulus. Move the target vertically, horizontally, diagonally, and in circular motions, minimizing arm movements as much as possible. Note the smoothness of

movement in each direction, inability to disassociate head and eye movements, any midline difficulties, or lack of symmetrical eye movements. Mark those planes (vertical, horizontal, diagonal, and circular) in which the student smoothly tracks the target.

Assess the student's ability to refocus (find one's place) between the board/display screen and a paper on the desk and between the paper and a book in front of the student. Also note the student's ability to scan objects on an assistive device. Check "Yes" if the student can easily find his/her place between the two surfaces; check "No" if there is a delay in finding his/her previous place or the student focuses on an incorrect place.

B. Visual-Perceptual Skills

To complete this section, you must determine what is age-appropriate for the student by consulting with the teacher or comparing the student's work to that of his/her same-age, nondisabled peers. Record the student's performance on only those items that are age-appropriate.

Note in the Comments section any visual field deficits, difficulties if the objects were oriented in a different or unusual plane, etc. In addition, indicate if an unusually long period of time was required to perform any of these tasks.

The following are clarifying statements for the table in the Visual Perceptual Skills section of the evaluation tool:

- For students in second grade and above, record the ability to form letters, numbers, and words without reversals. In the Comments section, list the reversals noted in the student's writing.
- In the assemble puzzles area, identify what types of puzzles (formboard, non-interlocking, interlocking, knobbed, adapted) and the number of pieces the student can assemble independently.
- Determine the student's ability to distinguish between the following positional terms: in/out, top/bottom, over/under, and left/right. Include in the Comments section whether the demonstrations involved objects or the body.
- A 4–4½-year-old student is expected to be able to draw a person with three body parts, whereas a 5–5½-year-old is expected to draw five or more body parts. List those body parts the student drew and any unusual orientation or placement of the body parts in the drawing.

C. Functional Fine Motor Skills

To complete this section, you must determine what is age-appropriate for the student by consulting with the teacher or comparing the student's work to that of his/her same-age, nondisabled peers. Record the student's performance on only those items that are age-appropriate.

Observe the student's spontaneous use of the hands to determine which is the preferred or dominant hand. Indicate whether this preference is emerging (frequent use) or established (consistent use).

- Emerging: Hand is used frequently.
- Established: Hand is used consistently.

In the Comments section, record any unusual use of the hands, positioning of the fingers, use of external support, etc.

D. Visual Motor Skills

To complete this section, you must determine what is age-appropriate for the student by consulting with the teacher or comparing the student's work to that of his/her same-age, nondisabled peers. Record the student's performance on only those items that are age-appropriate.

The following codes are used on this portion of the evaluation.

- C The student copied a design that was already made in each of the pre-writing strokes.
- I The student imitated the examiner or another adult in reproducing each of the pre-writing strokes.
- U The student is unable to perform the task.

Indicate whether the student copied a design already made or imitated the examiner or another adult in reproducing each of the pre-writing forms.

The following are clarifying statements for the table in the Visual Motor Skills section of the evaluation tool:

- Use age-appropriate material as needed.
- For each of the items in the table, record the student's ability to copy material from near point (book or other piece of paper close to the student) and from far point (board/display screen or wall, approximately 3–6 feet away).
- Note the number of units (letters or words) the student wrote before returning to the original.

When describing the pencil/crayon grip, consider the following:

- Does the grasp vary with time?
- Is the grasp immature but functional for the student?
- What modifications (such as a pencil grip, weighted pen, raised line paper, color-coded paper, etc.) is the student using to complete written work?

Note the type of scissors used. Use the descriptors below in addition to describing the student's ability to use scissors:

<i>Functional</i>	Age-appropriate
<i>Emerging</i>	The student demonstrates beginning scissors use, but may need physical assistance
<i>Unable</i>	The student is not able to use scissors without maximum assistance
<i>Smooth cuts</i>	Jagged edges and curves are rounded
<i>Choppy</i>	Jagged edges, cuts extend beyond the cutting line

If the student is able to cut with scissors, check the types of lines/shapes the student cuts: straight line, angled line, curved line, circle, triangle, square, or simple picture.

Note the accuracy and size (width and/or length) of lines/shapes cut and the weight of the paper.

Include in your comments whether the student holds the scissors proximally (at the base of the fingers) or distally (between the distal interphalangeal [DIP] and proximal interphalangeal [PIP] joints of the fingers). Also indicate whether the student's forearm is pronated or supinated when cutting. Record any unusual behaviors, such as stabilizing the arm against the trunk, keeping the paper on the table while cutting, using associated movements, showing inability to rotate paper while cutting, etc.

Section VI. Sensory Processing

This area addresses tolerance of sensory stimuli, play/work skills, and praxis abilities needed to function in the school environment (AOTA, 2003; AOTA, 2008).

A. Tolerance of Sensory Stimuli

Mark "Yes" or "No" as appropriate in the table. If assessment of this skill is not applicable or is addressed by another discipline, place an "N/A" in the Y/N column. In the Duration/Reaction column, document pertinent information regarding the length of time the student could tolerate the particular type of stimulation and/or any unusual reactions to the sensory stimulation.

The following are clarifying statements for the table in the Sensory Processing section of the evaluation tool:

- Wet sensory materials include shaving cream, finger paints, and glue.
- Dry sensory materials include rice, sand, sandpaper, and macaroni.
- Indicate any difficulties in determining if a student transitions easily between activities, including any actions the student uses to avoid the transition. Be sure to indicate the length of time for the student who is having difficulty. (Also note if any activities when transitioning to and from the activity are consistently a problem.)
- Indicate any unusual amount of force used by the student to determine if appropriate pressure is used in play. Include the activity and/or object involved during which an inappropriate amount of force was used. Be sure to record the student's affect.
- When observing playground activities, note if the student seeks only one particular type of movement or avoids all playground equipment. Document any brief or prolonged use of particular pieces of equipment and the student's atypical reaction to any movement experiences.
- Document any self-stimulating behaviors in which the student engages, and indicate the times they are most likely to occur.
- Describe any sensory activities that the student seeks, such as fidgeting, putting nonfood objects into the mouth, smelling objects, twirling his/her hair, constant humming, etc.
- Describe any sensory activities that the student avoids, such as being messy, having his/her feet off the ground, etc. Document the behaviors in which the student engages to avoid these activities.

B. Play/Work Skills

- Solitary play: The student plays only by him/herself and may move away if others approach.
- Parallel play: The student plays by him/herself in close proximity to a peer. The play may involve using similar toys or sharing materials
- Group play: The student engages in play involving rules so that all the players share a basic understanding of the rules of the game. This may involve games in which a standard set of rules applies, or in which the players make up the rules, as in role-playing or fantasy play.

C. Attention and Motor Planning

Use the codes provided on page 10 to record the student's ability to perform both the attention and motor planning components of each task. In the Duration/Reaction column, note any unusual behaviors observed during the course of any of the activities listed. Examples may include a delay before responding, talking to oneself, and the type of assistance needed to perform the task. If the student is unable to complete the task, indicate the length of time the student engaged in the activity. In recording the student's ability to complete a multi-step task, note the maximum number of steps the student can complete independently. Indicate whether the level is appropriate for the situation.

Definitions:

- Attention: The ability to focus on the task.
- Motor planning: Includes the conception, organization, and execution of a task.

Evaluation/Summary

The following are directions for completing the Evaluation of Functional Skills in the Educational Environment Summary form.

Learning Environment

Be sure to note what needs to be changed or modified within the student's learning environment (e.g., different height or location of chair/desk, etc.).

Personal Care, Mobility, Gross Motor, Fine Motor/Visual Motor, Sensory Processing

Summarize the student's strengths and weaknesses in each of these five areas. This is to be a comprehensive narrative written in language that is easily understood by parents and teachers. It should be concise, jargon-free, and without abbreviations or symbols.

Additional Information

Additional information may include such things as medical and therapy histories, treatment precautions, and other factors that may impact therapy services. List any other assessments performed with the student.

Information Source

Record all sources of information.

Present Level of Performance

Record the student's abilities in positive statements. Include levels of support needed to perform tasks.

What is interfering with the student's ability to perform in the educational environment?

Summarize the student's identified needs that impact or impede the student's ability to access or benefit from the current IEP goals. A definitive statement about the need for and frequency of therapy services is **not** to be included. The IEP team makes that decision.

Signatures

Sign and print your name. The date should indicate when the report was completed.

Assessment of Functional Skills in the Educational Environment

Type of Evaluation: ___ Occupational Therapy ___ Physical Therapy
 ___ Initial ___ Re-evaluation

Student Name: _____ Date(s) of Evaluation: _____

DOB: _____

Student Number: _____ Age: _____ Grade: _____

School: _____ ESE Program(s): _____

Medicaid Number: _____ Physician: _____

Medical Diagnosis/History: _____

Medication(s)/Allergies: _____

Previous Therapy Intervention: _____

Referral Concerns: _____

The following codes are used to record the results of the evaluation:

- F – Functional** **The student is functional in performing the task with or without adaptive equipment in the educational environment.**
- S – Supervision/prompts** **The student requires adult attention for safety or thoroughness and/or verbal, visual, tactile cues or gestures to perform the task.**
- P – Physical assistance** **The student requires hands-on contact to perform all or part of the task.**
- E – Emerging** **The student is beginning to perform part of the task. Moderate to maximum assistance may be needed to complete the task.**
- N/A – Not applicable** **The assessment of this skill is not needed. The student is unable to perform the task due to developmental age, physical limitations, or cognitive ability. Student’s needs are addressed through classroom curriculum or other existing services, which may include total assistance by school staff.**

I. Learning Environment (Each therapist evaluating the student must complete this section.)

Is the student’s:	Y/N	Comments
Chair height appropriate?		
Desk height appropriate?		
Desk location accessible?		
Desk location functional?		
Storage area accessible?		
Adaptive positioning equipment functional?		
Low-tech assistive technology equipment functional?		
High-tech assistive technology equipment functional?		

What support is provided to the student during the school day? _____

Describe any accommodations currently used to enable the student to participate in the educational environment. _____

Based on the above information, what is interfering with the student's ability to perform within and to access the learning environment? _____

II. Personal Care

A. Eating/Feeding Skills

Assessment in this area is not indicated at this time.

Special diet: _____

Does the student eat table foods? Yes No

If no, check all that apply:

- Soft Chopped G-Tube
 Chewy Mashed Thickened liquids
 Crunchy Pureed Thin liquids

Note unusual food preferences: _____

Functional Ability	Code	Comments
Obtains food from cafeteria line		
Carries tray to table		
Sets up meal		
Finger feeds		
Self-feeds using utensils/ equipment	/	
Drinks from cup		
Drinks from straw		
Uses napkin to wipe face/hands	/	
Cleans up		

Does the student drool while eating? Yes No

Does the complete meal within the designated time allotment? Yes No

Describe position for eating: _____

Describe any accommodations student currently uses for eating (seating, position of table, utensils, cups, etc.): _____

B. Hygiene

Assessment in this area is not indicated at this time.

Check to indicate how the student manages bladder and bowel control:

<i>Bladder Control</i>	<i>Bowel Control</i>
_____ Toilet trained	_____
_____ On toileting schedule	_____
_____ Wears diapers	_____
_____ Catheterized ___independently	___with assistance

Functional Ability	Code	Comments
Manipulates fasteners for toileting		
Manages clothing for toileting		
Turns faucet on/off	/	
Washes/dries hands	/	
Accesses water fountain		

List adaptive equipment/accommodations currently used for toileting and personal hygiene: _____

Based on the above information, what is interfering with the student's ability to perform educationally relevant personal care skills within the educational environment? _____

III. Mobility

A. School Bus

Assessment in this area is not indicated at this time.

Does the student ride the bus to school? Yes No
 Does the student ride the bus on field trips? Yes No
 Does the student ride the bus to a CBI site? Yes No

How does the student get on/off the bus?

- Walks up/down stairs independently
- Walks up/down stairs with assistance or supervision
- Independently maneuvers wheeled mobility device on/off bus lift
- Requires physical assistance to maneuver wheeled mobility device on bus lift

Note: On the ground, the student is allowed to motorize himself onto the lift; however, once on the lift the power to the wheelchair (or wheeled mobility device) is shut off. Once the lift is level with the bus floor, the wheel locks (if present) are unlocked and the lift gears are disengaged. The bus staff inside the bus pulls the wheelchair into the bus as the adults on the ground assist by pushing the wheelchair into the bus. When the motorized wheelchair is on the lift and the lift is off the ground, the power to the wheelchair must be turned off.

Where does the student sit?

- Bus seat
- Remains in wheeled mobility device

What equipment is transported with the student? _____

How does the student transfer to the bus seat? _____

Describe the student's sitting posture while on the moving bus: _____

Note the student's current occupant restraint system:

- Compartmentalization Car seat Special needs car seat
- Add-on seating system Integrated seat Safety vest with crotch strap
- Remains in wheeled mobility device and relies on school bus wheelchair tie downs and occupant restraint systems

B. School Campus

Assessment in this area is not indicated at this time.

Check to indicate all means of mobility:

- Walks independently
- Walks independently with equipment
- Walks with assistance
 - Physical assistance Holds onto furniture/walls
 - Cuing or prompting Supervision
 - Dependent mobility device (e.g., stroller)
 - Manual wheelchair
 - Self-propelled Pushed
 - Power wheelchair

List assistive devices, orthotics, and accommodations currently used for mobility: _____

Describe wheeled mobility base and seating system: _____

Describe how gait pattern influences campus mobility: _____

Classroom to:	Code the student's performance under all three conditions for each relevant location:			
	Uncrowded Conditions	Crowded Conditions	Within Environment	Comments
Bus area				
Bathroom				
Other classes				
Cafeteria				
Playground				
P.E. area				
Auditorium				
CBI site				

Student's ability to manage campus obstacles	Code	Comments
Opens door(s) – type of handle		
Closes door(s) – type of handle		
Steps over threshold		
Steps over/around obstacle		
Up/down curb		
Up/down ramp		
Up/down stairs		

Describe student's ability to transition between different types of terrain: _____

C. Classroom Mobility

Assessment in this area is not indicated at this time.

Student's ability to	Code	Comments
Move within the classroom		
Get down/up from floor	/	
Transfer to/from wheelchair to chair	/	
Transfer to/from chair to standing	/	
Transfer to/from toilet	/	
Transfer to/from chair to adaptive equipment	/	

D. Manipulation of Mobility Equipment

Assessment in this area is not indicated at this time.

Student's ability to	Code	Comments
Adequately grasp/release cane	/	
Adequately grasp/release crutches	/	
Adequately grasp/release walker	/	
Manipulate wheelchair locks	/	
Operate joystick on wheelchair	/	
Adequately grasp/release wheelchair wheels	/	
Fasten/unfasten wheelchair positioning belt	/	
Manipulate other wheelchair equipment (footplates, leg rests) specify:	/	

Describe any physical limitations that interfere with the student's safe and functional mobility: ___

Based on the above information, what is interfering with the student's functional mobility within the educational environment? _____

IV. Gross Motor

Assessment in this area is not indicated at this time.

Student's ability to	Code	Comments
Hold head without trunk supported		
Hold head with trunk supported		
Turn head to localize sight or sound		
Roll to change position		
Demonstrate functional floor mobility		
Demonstrate functional head and neck control for feeding		
Demonstrate functional sitting posture on floor		
Demonstrate functional sitting posture on chair/toilet	/	
Demonstrate upright mobility		
Carry school materials		
Pick up objects from floor		
Catch self during falls		
Walk in line		
Maintain balance while standing		
Manage classroom chair		
Maintain balance while reaching		
Maintain standing/sitting balance during white board activities	/	
Maintain standing/sitting balance while accessing locker	/	
Access playground equipment		
Participate in physical education		

Describe any abnormal movement patterns or fixed postures that interfere with the student's functional ability: _____

List any current equipment or accommodations provided to the student: _____

Based on the above information, what is interfering with the student's ability to perform educationally relevant gross motor skills within the educational environment? _____

V. Fine Motor/Visual Motor

A. Visual Tracking

Assessment in this area is not indicated at this time.

Check the directions in which the student smoothly tracks a target:

Vertically Horizontally Circularly Diagonally

The student visually scans and locates:

Between white board and paper Yes No

Between book and paper Yes No

Icon/picture on assistive technology device Yes No

B. Visual-Perceptual Skills

Assessment in this area is not indicated at this time.

Student	Y/N	Comments
Matches shapes, colors, letters, numbers		
Recognizes first/last name in print		
Identifies letters of name		
Distinguishes between small, medium, and large sizes		
Forms letters, numbers, and words without reversals		
Assembles puzzles		
Demonstrates positional concepts		
Finds hidden pictures		
Draws person with age-appropriate number of body parts		
Draws/colors/writes within boundaries provided		
Properly orients written work on paper		
Correctly spaces work on paper		

C. Functional Fine Motor Skills

Assessment in this area is not indicated at this time.

Preferred hand: Right Left Emerging Established

Student	Code	Comments
Uses nondominant hand as assist		
Holds object at midline		
Puts two objects together		
Folds paper		
Tears paper		
Transfers object/coins from hand to hand		
Crosses midline of body		
Moves coin from palm to fingertips/ fingertips to palm	/	
Places coin in vending machine		
Places dollar in vending machine		
Turns pages one at a time		
Manipulates glue bottle or stick		
Manipulates office or work materials		
Manipulates hole punch		
Manipulates key lock		
Manipulates combination lock		

D. Visual Motor Skills

Assessment in this area is not indicated at this time.

Student: Scribbles Traces Draws Colors Writes

Indicate the student's ability to imitate (I) or copy (C) the following pre-writing strokes/forms.
Score (U) if the student is unable to perform the task.

Vertical line Horizontal line Circle Cross Left diagonal
 Square Right diagonal Triangle "X"

Student	Code	Comments
Copies/writes single letters, numbers	/	
Copies/writes single words	/	
Copies/writes a five word sentence	/	
Uses writing line appropriately		
Copies from near point		
Copies from far point / chalkboard		
Completes written work within given time		

Describe the student's pencil/crayon grasp: _____

Describe the student's ability to use scissors and type of scissors used for cutting: _____

List any current equipment or accommodations provided to the student: _____

Based on the above information, what is interfering with the student's ability to perform relevant fine motor/visual motor skills within the student's educational environment? _____

VI. Sensory Processing

A. Tolerance of Sensory Stimuli

Assessment in this area is not indicated at this time.

Student	Y/N	Duration/Reaction
Tolerates positioning in equipment		
Tolerates wet sensory materials		
Tolerates dry sensory materials		
Tolerates other sensory materials		
Tolerates closeness of peers		
Transitions easily		
Ignores movement of the other students		
Accommodates to everyday noises		
Tolerates loud or unexpected noises		
Tolerates unexpected bump/touch		
Tolerates a variety of food textures		
Tolerates hand over hand assistance		
Uses appropriate pressure in play/use of manipulatives		
Plays on a variety of playground equipment		

Describe any self-stimulating behaviors/activities in which the student engages: _____

Describe sensory activities the student seeks: _____

Describe sensory activities the student avoids: _____

B. Play/Work Skills

Assessment in this area is not indicated at this time.

Check the type(s) of play in which the student engages:

Solitary Parallel Small group Large group

Does the student initiate play with peers? Yes No

Does the student engage in peer initiated play? Yes No

List the student's preferred toys/play activities: _____

C. Attention and Motor Planning

Assessment in this area is not indicated at this time.

Use the code when completing the following section:

Student's ability to attend to and then physically perform tasks	Attention	Motor Planning	Duration/Reaction
Gathers/organizes materials needed for activity	/	/	
Completes sequenced tasks			
Follows verbal directions			
Attends to desktop activities			
Attends to group activities			
Initiates activities independently			
Performs tasks independently			

Does the student appropriately seek adult attention? Yes No

Does the student demonstrate the ability to self-regulate activity level? Yes No

List any current equipment or accommodations provided to the student: _____

Based on the above information, what is interfering with the student's sensory processing within the educational environment? _____

Occupational Therapist's Signature

Physical Therapist's Signature

Therapist's Name Printed

Therapist's Name Printed

Date

Date

Assessment of Functional Skills in the Educational Environment Summary

Type of Evaluation: _____ Occupational Therapy _____ Physical Therapy
_____ Initial _____ Reevaluation
Student Name: _____ Date(s) of Evaluation: _____ DOB: _____
Student Number: _____ Age: _____ Grade: _____
School: _____ ESE Program(s): _____

Based on the Evaluation of Functional Skills in the Educational Environment Evaluation, summarize the student's functional status in each area.

I. Learning Environment

II. Personal Care

III. Mobility

IV. Gross Motor

V. Fine Motor/Visual Motor
VI. Sensory Processing
Additional Information
Information Source: <input type="checkbox"/> Parent <input type="checkbox"/> School Personnel <input type="checkbox"/> School Records Review <input type="checkbox"/> Medical Records <input type="checkbox"/> Other _____
Present Level of Performance
What is interfering with the student's ability to perform within the educational environment?
Recommendations:

Therapist's Signature

Therapists's Name Printed

Date

Handwriting Assessment

Instructions

This assessment can be used when an in-depth look at the components of handwriting is required. It is intended to be a quick assessment of typical performance of students, first grade through high school. Following a review of student records (psychoeducational and/or academic) and work samples, observe the student during a typical activity that is appropriate for his/her age and/or developmental level. For young students appropriate activities may include coloring, tracing, drawing in paths, dot-to-dot, pictures, etc. (Asher, 2006; Beery, Buktenica, & Beery, 2006; Graham, 2009; Olsen, 2005).

Administering the assessment:

- Observe the student during a handwriting activity within the classroom, scoring as many items as possible.
- Indicate whether the student's performance is functional or nonfunctional.
- Use the Comments section to record the difficulties noted in the student's performance. Those items not observed within the classroom will be assessed in an individual testing environment.
- Record any significant differences in performance or behavior between the two environments (classroom and individual testing session).

Definitions:

Functional performance: The student's performance is considered functional when it is appropriate for his/her developmental age, physical limitations, or cognitive ability.

Nonfunctional performance: The student's performance is considered nonfunctional when it is below his/her developmental age, physical limitations, or cognitive ability.

Examples:

- A sixth grade student whose developmental level is at third grade would be expected to complete third grade work. If this student completed work at a first grade level, his/her performance would be scored as nonfunctional.
- The performance of a student with decreased motor control and/or endurance would be considered functional if he/she completed a majority of his/her modified assignments. This student's performance would be nonfunctional if so much effort went into the actual writing that he/she was unable to complete assignments per the teacher's requirements.
- A student with learning disabilities with an average IQ would be expected to perform at or close to his/her chronological age. However, this student's performance would be nonfunctional if the majority of the work he/she completed was below grade level.

Summarize each component by indicating whether the student's performance is functional or non-functional in that area.

- Note how the student's handwriting skills are interfering with the ability to access the learning environment and how occupational therapy services can address the difficulties.
- Document any suggestions provided to the student's teacher(s) and/or parent or guardian.

Handwriting Assessment

Name: _____ Student Number: _____
 Date of Assessment: _____ D.O.B.: _____ Age: _____
 Grade: _____
 School: _____ ESE Services: _____

Check to indicate whether the student’s performance is functional or non-functional:

FUNCTIONAL	POSTURAL COMPONENTS	NON-FUNCTIONAL	COMMENTS
	Chair size appropriate (feet fully supported and hips at back of chair)		
	Desk height/writing surface distance (1–2” above bent elbow)		
	Upright sitting posture		
	Posture maintained for duration of activity		
	Posture maintained with increased activity demands		
	Posture adjusted during activity		

Component summary: **Functional** **Nonfunctional**

FUNCTIONAL	FINE MOTOR COMPONENTS	NON-FUNCTIONAL	COMMENTS
	Demonstrates a skilled hand		
	Stabilizes paper with nondominant hand		
	Positions the writing instrument in preparation for drawing, coloring, or writing		
	Demonstrates functional pencil grasp (dynamic grasp of any style)		
	Stabilizes side of hand, wrist, and forearm on writing surface		
	Maintains grasp with adequate strength for duration of the activity		
	Maintains functional grasp with increased activity demands		
	Turns pencil around to erase without assistance from the other hand or another surface		
	Demonstrates adequate control of the writing instrument (dot-to-dot activities, mazes/pathways)		
	Moves an object from palm to fingers		

Component summary: **Functional** **Nonfunctional**

FUNCTIONAL	VISUAL-PERCEPTUAL COMPONENTS	NON-FUNCTIONAL	COMMENTS
	Recognizes strokes (l, —, O, +, /, \, X,) and forms (□, ◇)		
	Recognizes numbers		
	Recognizes letters		
	Stays within the boundaries of the paper for activity		
	Stays within the boundaries of the coloring/drawing area or writing line for activity		
	Uses uniform sizing of shapes, numbers, letters, or words		
	Uses uniform spacing between shapes, numbers, letters, or words		
	Orients and places written information per teacher requirements		
	Maintains place when copying		
	Copies entire word or multiple words without frequent glancing at model		
	Positions ascenders properly above the writing line		
	Positions descenders properly below the writing line		
	Uses capital and lower case letters appropriately (not secondary to academic level)		
	Aligns math work adequately		

Component summary: Functional

Nonfunctional

FUNCTIONAL	SENSORY PROCESSING COMPONENTS	NON-FUNCTIONAL	COMMENTS
	Focuses on task		
	Completes task (independently or with minimal cuing)		
	Completes task within the allotted time		
	Utilizes appropriate crayon, pencil, or eraser pressure		
	Draws shapes, numbers, letters, or words with vision		
	Draws shapes, numbers, letters, or words with vision and then with vision occluded		
	Knows right from left and top from bottom		

Component summary: Functional

Nonfunctional

FUNCTIONAL	VISUAL MOTOR COMPONENTS	NON-FUNCTIONAL	COMMENTS
	Tracks/scans smoothly horizontally and vertically		
	Imitates basic strokes/forms		
	Draws recognizable pictures		
	Copies basic strokes/forms, numbers, letters or words from near point		
	Copies basic strokes/forms, numbers, letters or words from far point		
	Writes numbers or letters sequentially from memory		
	Writes numbers or letters upon request (sequentially or randomly)		
	Draws/writes without reversing direction or order		
	Draws or writes smoothly (without frequent stops and starts within a form, number, letter, or word)		
	Demonstrates legibility representative of speed of performance		
	Demonstrates adequate signature		

Component summary: Functional

Nonfunctional

Summarize how the student's handwriting skills are interfering with his/her ability to access the learning environment. List any suggestions provided to teacher(s) and/or parent/guardian:

Therapist's Signature: _____

Date: _____

Transportation Assessment

Instructions

It is extremely important that this assessment be completed by the occupational and/or physical therapist in cooperation with the transportation supervisor and/or bus driver and attendant/monitor. This evaluation is to be completed on the bus to accurately assess the tie downs, occupant restraints, and other items needed by the student.

I. School Bus Use

This evaluation is to be used with any student with a disability who rides the school bus on a daily basis to and from school, on a field trip, or to a CBI site.

II. Loading/Unloading

Note how the student gets on and off the school bus.

Please note that best practices state that no students are to be carried up or down the bus steps.

Best practices also state that when a student uses a motorized wheelchair he/she should be encouraged to maneuver his/her motorized wheelchair independently onto the lift when on the ground. However, when the lift is at the bus floor level the motorized wheelchair should be manually pushed onto or pulled off the bus lift. Power to the wheelchair must also be turned off and brakes applied before lift is to be engaged.

In the Comments section, note how long it takes for the student to get on/off the bus, level of assistance needed, and alternative means, such as borrowing a wheelchair/stroller for use on the bus lift.

III. Seating Position

Any student who can assist with a transfer or be “reasonably” moved from a wheelchair, stroller, or specialized seating device to the bus’ original manufacturer’s forward-facing seat should be transferred to an appropriate seat for school bus transportation. Students using three-wheeled carts **must** transfer to the bus seat for transportation.

IV. Occupant Restraint

Questions to ask when determining if the student can rely on compartmentalization follow.

If the answer is no to any question, then the student may need a safety vest or be transported in an integrated seat or other child safety seat (car seat).

- Does the student have the physical ability to sit up straight on the bus seat, especially when the bus is moving?
- Does the student have sufficient sitting balance to maintain his/her trunk upright when the bus is moving?
- Does the student have the cognitive ability to sit up straight?

According to the National Highway Traffic Safety Administration Guidelines, pre-school children should be restrained in one of the following:

- A safety vest with crotch strap
- An integrated seat
- A conventional or special needs car seat
- An add-on seating system

Car seats used on school buses must comply with Federal Motor Vehicle Safety Standards (FMVSS) 213, Child Restraint Systems.

- The transportation team should contact their local child passenger safety (CPS) technician regarding the specifics of the car seat to be used in view of the child's weight, height and age
- Only a soft cervical collar should be used during transportation
- The need for additional securements, such as a tether strap for a special needs car seat, will be determined according to the manufacturer's instructions and the assistance of the CPS technician

V. Wheelchair Positioning

Wheelchair specifics:

- Type: Describe the specifics of the mobility base and seating system. Describe the details of the system. Note if the seating system is different (e.g., molded system, etc.).
- Weight: Note the approximate combined weight of the wheelchair, attachments, medical equipment that stays on wheelchair during transportation, and the student. Be sure to include the weight of orthoses if usually worn during transportation.
- Motorized: Lead acid batteries should not be transported in the passenger compartment of any vehicle.
- Tilt in Space: When a student is transported in a wheelchair with a tilt in space mechanism, the degree of tilt needs to be carefully evaluated. Tilting more than 30° may reduce the effectiveness of the shoulder portion of the occupant restraint system. (Note: A student may have a medical condition that requires more than a 30° tilt; this is where the transportation team must evaluate the specifics and determine if the shoulder strap needs to be attached vertically.)
- Recline: When a student is transported in a wheelchair with a recline mechanism, the degree of recline must be carefully evaluated. Reclining more than 30° may reduce the effectiveness of the shoulder portion of the occupant restraint system. (Note: A student may have a medical condition that requires more than a 30° recline; this is where the transportation team must determine additional positioning straps or devices to be added to minimize the potential for the student to slide out of the wheelchair during transportation. The transportation team must also evaluate if the shoulder strap needs to be attached vertically.)

Wheelchair Components:

Every student riding the school bus is different. Likewise their individual wheelchair and positioning needs are different.

Indicate the presence or absence of any component in the Comments section, including the condition of the components, the need for repairs or replacement, or necessity of the component for the particular student. When there are removable components, particularly the headrest, it is helpful to the bus staff if the OT/PT marks exactly where the headrest should be positioned during transportation.

Student Specifics:

Record the weight and height of the student.

Any restraint that secures the student's head or neck to the back of the wheelchair must be removed for transportation. Then assess the need for a soft cervical collar.

Best practices recommend that aggressive positioning adaptations be removed for transportation.

A student with poor head control may need to sit near the front of the bus where there is less motion as compared to the back of the bus. Students with athetoid movements may need to be positioned away from other students.

List any specific emergency precautions, such as how long a student on life support systems can survive, if they must be removed from the life support, and describe the need for an Ambu Bag.

VI. Additional Equipment

Medical Equipment:

- Indicate whether the student has medical equipment that is transported to and from school. (Transported equipment must be easily accessible.)
- Describe how the equipment will be protected. (Best practices suggest that the equipment, such as oxygen canisters, be secured at the mounting location to withstand a pulling force five times the weight of the item or contained in an enclosed latched component.)

Assistive Technology:

- Indicate whether the student has assistive technology that is transported to and from school.
- Describe how the equipment will be protected.

Other Equipment:

- List any other equipment that is transported on the school bus and how it is secured.

VII. Summary

Based on this evaluation, summarize your transportation recommendations.

For additional information see the following references: AAP (2008); Bluth, (2009) and Rehabilitation Engineering Research Center on Wheelchair Safety and University of Michigan Transportation Research Institute University of Michigan Health System (2009).

Transportation Evaluation

Name: _____ DOB: ___/___/___ DOE: _____

School: _____ ESE Program: _____

Medical Diagnosis/History: _____

I. School Bus Use

- | | | |
|---|------------------------------|-----------------------------|
| Does the student ride the bus to school? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Does the student ride the bus on field trips? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Does the student ride the bus to CBI site? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

II. Loading/Unloading

How does the student get on/off bus?

- ___ Uses stairs independently.
- ___ Uses stairs with assistance or supervision.
- ___ Maneuvers manual wheeled mobility device on/off bus lift independently.
- ___ Requires physical assistance to maneuver manual wheeled mobility device on/off bus lift.
- ___ Maneuvers motorized wheeled mobility device onto bus lift independently when on ground. (Note: Student's motorized wheelchair should be manually pushed onto/pulled off the bus lift when lift is at bus floor level.)
- ___ Requires physical assistance to maneuver motorized wheeled mobility device onto bus lift when on ground. (Note: Student's motorized wheelchair should be manually pushed onto/pulled off the bus lift when lift is at bus floor level.)

Comments: _____

III. Seating Position

Location:

- ___ Bus seat
- ___ Wheeled mobility device

Describe the most appropriate transfer for the student and the level of assistance or supervision needed. _____

IV. Occupant Restraint

What type of child safety restraint system is needed?

- None – reliance on compartmentalization
- Safety vest
- Safety vest with crotch strap
 - Waist size _____
- Integrated seat
- Car seat
 - Weight of student _____
 - Height of student _____

Are any additional security measures or add-on devices necessary?

- Soft cervical collar
- Other _____

Concerns or modifications recommended: _____

V. Wheelchair Positioning

Wheelchair Type:

Describe: _____

Weight:

Give approximate overall combined weight of the wheelchair, attachments, essential medical equipment attached to wheelchair, and the student: _____

Motorized:

If the wheelchair is motorized, is there a gel battery? Yes No
If the battery is not a gel battery, where is it transported? _____

Tilt in Space:

If the wheelchair has a tilt in space mechanism, does the student require the chair to be tilted during transportation? Yes No

If yes, state degree of tilt: _____

Describe why this degree of tilt is necessary during transportation:

Reclining:

If the wheelchair has a reclining mechanism does the student require the chair to be reclined during transportation? Yes No

If yes, state degree of recline: _____

Describe why this degree of recline is necessary during transportation:

Note any additional positioning straps or devices to be used to help maintain the student in his reclined wheelchair during transportation:

Other:

Note if the seating system and mobility base is different from the usual system (e.g., car seat on mobility base, molded system, etc.):

Wheelchair Components:

Every student riding the school bus is different. The following wheelchair components should be assessed, and a transportation team should make a final decision regarding the transportability of a wheelchair and the need for additional supports.

Circle yes if the following components are in place:

			Comments
1. Are the wheel locks holding properly?	Yes	No	_____
2. Is the seat of the chair attached securely to the frame?	Yes	No	_____
3. Is the back of the chair attached securely to the frame?	Yes	No	_____

Comments

4. Is the positioning belt attached securely to the frame?	Yes	No	_____
5. Is the anterior chest harness:			
a. Securely attached?	Yes	No	_____
b. Holding the student correctly?	Yes	No	_____
6. Are the lateral trunk supports:			
a. Securely in place?	Yes	No	_____
b. Holding the student in an upright posture?	Yes	No	_____
7. Is the headrest:			
a. Securely attached?	Yes	No	_____
b. Providing proper support?	Yes	No	_____
8. Are the foot rests:			
a. Staying in place?	Yes	No	_____
b. Providing proper support?	Yes	No	_____
9. Are the anti-tip bars:			
a. Present?	Yes	No	_____
b. Functioning appropriately?	Yes	No	_____
10. Are the tires:			
a. Inflated?	Yes	No	_____
b. Badly worn?	Yes	No	_____

Student Specifics:

Weight of student: _____

Height of student: _____

Is there any head/neck support or restraint that needs to be removed and/or added for transportation? Yes No

If yes, specify: _____

Are there any other aggressive positioning adaptations that need to be removed during transportation (e.g., SUBASIS bar or anterior knee blocks)? _____

Does the student need to be positioned in a specific area of the bus? Yes No

If yes, describe location and reason. _____

List any specific emergency evacuation precautions to be considered. _____

VI. Additional Equipment

Medical Equipment

Does the student have medical equipment that is transported on the school bus?

Yes No

If yes:

<i>Type of Device</i>	<i>Is it critical to use it during transportation?</i>	<i>Is there a carrying case/ protective covering?</i>	<i>How is it secured within bus?</i>

Assistive Technology

Does the student have an assistive technology device that is transported on the school bus?

Yes No

If Yes:

<i>Type of Device</i>	<i>Is there a carrying case/ protective covering?</i>	<i>How is it secured within bus?</i>

Other

Is there additional equipment that must be transported and secured (e.g., ambulation equipment, tray, etc.)? Yes No

If yes, list: _____

How are these equipment devices secured on the bus?

VII. Summary

Recommendation for transportation: _____

 Therapist's Signature

 Therapist's Name – Printed

 Date

Wheelchair Assessment

Introduction

Districts choose the assessment tools that they feel are appropriate for the students served. However, depending on circumstances and funding source, there may be mandates concerning the choice of wheelchair assessment that must be used. This evaluation tool was created in collaboration with OT/PTs in Florida's school system. For additional information about wheelchair assessment, see Gierach (2009).

Instructions

This assessment is used when a student is being evaluated regarding his/her current wheelchair and possible modifications. It is also used when evaluating a student for a new wheelchair.

Whenever possible, this assessment should be completed as part of a team. Team members should include the therapist, the rehabilitation technology specialist (RTS)/wheelchair vendor, and the student's parent(s) as well as any other person qualified to give input.

In addition to evaluating the wheelchair, there is a section designated to evaluate the student's body as it pertains to the wheelchair. The team should consider the adaptations needed and the medical necessity for each component part of the wheelchair. It is very important that each section be completed fully and have details given for each custom modification and medical necessity.

I. Identifying Information:

- The information concerning the student's demographics, medical condition, and diagnosis should be filled out completely.
- Under "Summary of Needs," provide a detailed description of the child and the reason for needing a custom wheelchair. Include information regarding prognosis, ambulation potential, and overall use of a wheelchair.
- Be sure to document any orthopedic surgeries the student has received that will affect positioning.
- Whenever possible, consider attaching a picture of the student.

II. Wheelchair Use:

It is important to note where the wheelchair is used and how it is transported. It is also important to note if the current wheelchair frame or any component of the seating system can be used again.

III. Musculoskeletal Status:

A. Pelvis/Hips

Evaluate the pelvis and the tilt the pelvis is usually in while sitting. Also note pelvic obliquity and whether one side is higher or more forward.

Measure thigh length, being sure that the student is sitting upright. Also note the position of the lower extremities and whether there appears to be hip dislocation(s).

It is critical that in each section you note **all** custom modifications and why they are medical necessities.

Consider the following:

- **Solid Seat:**
 - Reasons
 - Provides a firm base of support.
 - Provides a base for symmetrical sitting.
 - Provides a central point from which to align the pelvis and trunk.
 - Facilitates balance capabilities.
 - Helps to minimize pelvic obliquity.
 - Positions lower extremities in more neutral position.
 - Considerations
 - Seat length must be accurate to provide for neutral alignment of the pelvis.
 - Seat must be firm enough to provide stability and the covering surface must be sufficient to provide comfort and pressure relief.

- **Hip Positioning:**
 - Reasons
 - Provides for symmetry of the hips.
 - Positions the pelvis for stability.
 - Allows for symmetrical weight bearing and discourages scoliosis, pelvic tilts, and/or dislocated hips.
 - Considerations
 - Degree of hip flexion must accommodate for fixed deformities and provide for best trunk alignment.
 - Seat to back angle should be 87–88 degrees of hip flexion.
 - Bilateral hip guides provide symmetrical alignment.

- **Split Length Seat:**
 - Reasons
 - Allows proper support of each lower extremity when there is a difference in leg length in the thigh area.
 - Supports longer leg to align it in neutral instead of adduction and internal rotation.
 - Considerations:
 - If the leg length discrepancy is greater than one inch, accommodate for the difference.

- **Positioning Belt:**
 - Reasons
 - Aids in pelvic stability
 - Allows for trunk balance
 - Considerations

- Analyze the angle and directional pull of the positioning belt.
- Size of webbing and closure should be proportional to the size of the student.
- For students who ride the school bus, the type of closure may need to be a positive locking closure.
- Assess need for padding under the positioning belt.

B. Skin

Establish whether the student has any loss of sensation through testing or parent report. Determine if the student had a skin breakdown.

- **Specialized Cushion:**
 - Reasons
 - Evens distribution of sitting pressure resulting in improved circulation.
 - Minimizes potential for skin breakdown.
 - Considerations:
 - Appraise the type and density of cushion material.
 - Plan for the need for protective waterproof covering.
 - Identify the extent of maintenance and care of cushion.

C. Trunk/Head

Evaluate the spine, noting any curves present. Note what occurs when the student is tired. Evaluate the student's head control. Consider the following:

- **Solid Back:**
 - Reasons
 - Helps to properly align the trunk and upper extremities to maximize head function and help prevent deformities.
 - Minimizes posterior pelvic tilt.
 - Considerations
 - Sufficient foam can provide comfort, pressure relief, and stability.
 - Additional foam might be needed to support fixed deformities.
- **Lateral Trunk Supports**
 - Reasons
 - To decrease excessive trunk mobility.
 - To align the trunk, maintain symmetry, and discourage spinal deformity.
 - Considerations
 - Use lateral supports on both sides of the student's trunk.
 - Allow room for chest expansion and some trunk movement.
 - Do not cut into axilla.
 - Removable or swing away supports are important for transfers.
- **Tilt in Space System**
 - Reasons
 - Student with low tone cannot remain in an upright sitting position against gravity for any length of time.

- Student unable to reposition self to change pressure points.
 - Tilt decreases the effects of gravity and thus assists in trunk alignment, prevents hanging of shoulder harness, and assists in positioning of head.
 - o Considerations
 - Degree of tilt in space needs to be carefully evaluated for each student, with consideration of their muscle tone.
- **Harness System and Strap Guides:**
 - o Reasons
 - Provides symmetrical trunk support.
 - Helps prevent forward trunk flexion.
 - o Considerations
 - Type of harness must be evaluated on an individual basis.
 - Shoulder strap should pass over the shoulder and insert at a point directly at or slightly below the shoulder line.
 - Harness must attach to a second lower strap and not to the pelvic positioning strap.
 - Dynamic straps allow for some movement.
 - Strap guides assist in keeping straps on the student's shoulders.
- **Head Control System:**
 - o Reasons
 - Keeps the head and neck in functional chin tuck position where the head is supported on a neutrally aligned neck and eyes are held in a parallel plane to the floor.
 - o Considerations
 - Maintain head in neutral alignment.
 - Use a head control system or extended back to assist in minimizing possible whiplash injuries during transportation.
 - Student may need a custom contoured system to allow for room at the ears and no interfere with vision.

D. Lower Extremities

Evaluate the tone in the lower extremities in regard to type and predominant movements. Evaluate the range of motion and patterns of movement that interfere with positioning. Measure the lower lengths of each extremity. Consider the following:

- **Medial Knee Support:**
 - o Reasons
 - To maintain the lower extremities in neutral alignment and discourage adduction and internal rotation.
 - To increase sitting stability.
 - To discourage hip dislocation.
 - o Considerations
 - Medial knee support should never be used to hold a student in the wheelchair.
 - Medial knee support should be removable to allow for transfers and personal care.

- Medial knee support should be firm to provide for alignment.
 - Overall medial knee support width and length must be evaluated on an individual basis.
- **Lateral Knee Support:**
 - o Reasons
 - To maintain the lower extremity in neutral alignment.
 - o Considerations
 - An individual may typically need bilateral knee supports.
 - It is important to avoid pressure over the fibula head, and do not force medially if passive movement is not present.
- **Footrests and Straps:**
 - o Reasons
 - To provide a stable base of support on which to build trunk, upper extremity, and head control.
 - To inhibit the influence of abnormal tone, thereby maintaining proper pelvic position.
 - To discourage circulatory problems.
 - o Considerations
 - Foot position follows the angle of the knee.
 - Weight bearing should be through a flat foot and equal on the heel and sole; in the case of foot orthoses, angle-adjustable foot plates might be needed.
 - The purpose of heel loops, foot straps, etc., is to maintain the feet in forward alignment.
 - Accommodations may be necessary for lower leg discrepancy.

E. Upper Extremities

Evaluate the tone in the upper extremities in regard to type and predominant movements. Also, evaluate the range of motion and patterns of movement that interfere with positioning. Consider the following:

- **Upper Extremity Support Surface:**
 - o Reasons
 - Encourages upper trunk extension and upright sitting through weight bearing on the forearms.
 - Provides for a functional work surface.
 - o Considerations
 - Height of support surface should support the flexed elbow and forearm.
 - Determine material used in support surface in view of functional vision.
 - Size of support surface should not be wider than the widest part of the wheelchair, and the depth should end at the student's toes.
- **Elbow Blocks:**
 - o Reasons
 - Prevents arms from falling off the tray/arm rest when the wheelchair is tilted or when the child has excessive posterior arm movement.

- o Considerations
 - It is important to take into account the student's size when determining the size of elbow blocks.
 - Elbow blocks can be mounted to wheelchair or to upper extremity support surfaces.
- **Type of Arm Rest:**
 - o Reasons
 - Encourages upper trunk extension through weight on the forearms.
 - o Considerations
 - Adjustable height can grow with the student.
 - Desk length allows the student to move in closer to his work area.

IV. Functional Skill Level

Using the following letters, describe the student's physical/functional ability.

I = Independent

A = Assisted independent

D = Dependent

Describe the student's gross and fine motor ability. Consider the following:

- **Frame, Wheels, Wheel Rim, and Casters:**
 - o Reasons
 - Can accommodate for growth changes.
 - Affects overall weight of the wheelchair and thus affects the maneuverability of the wheelchair.
 - o Considerations
 - Lifestyles of the family.
 - Surfaces where the wheelchair will be used.
 - Need for pneumatic wheels and casters, solid inserts, etc.
 - How the wheelchair will be transported.
- **Anti-tippers:**
 - o Reasons
 - Prevents the wheelchair from tipping over posteriorly and causing serious injury to the student.
- **Transit Option:**
 - o Reasons
 - To provide for safe transportation to and from medical appointments and school.
 - To prevent the wheelchair from tipping over during transportation, causing serious injury to the child.
 - To minimize the need for repairs to wheelchair due to incorrect tie down attachment and subsequent damage to wheelchair.

- **Extension Handles:**

- o Reasons

- To allow for movement of student while in a maximum posteriorly tilted position.
- To maintain the child consistently in the tilted position for medical reasons.

V. Powered Wheelchair Operation Assessment

The best way to assess a student's potential in regard to powered mobility is to have the student try a powered wheelchair. Also, assess ability through joystick control and computer programs, if appropriate.

VI. Seating Measurements

Be sure to measure each side individually. (Measurements are not applicable if modifications are not needed [e.g., if the student has good head control, head and neck measurements are not needed].)

VII. Recommendations

Describe the frames that were considered, and give the approximate cost.

Circle or indicate the appropriate description/measurement of the wheelchair frame and positioning adaptations needed by the student. Be sure to complete each line.

NOTE: The "Signature Page" is provided when the wheelchair evaluation is being submitted to Medicaid or other third party payer for payment.

Wheelchair Assessment

Assessment Date: _____

I. Identifying Information

Name _____ M F

DOB _____ Age _____

Primary Diagnosis _____ Date of Onset _____

Secondary Diagnosis _____

Medicaid # _____ Insurance Company: _____

Children's Medical Services client: Yes No

Agency for Persons with Disabilities client: Yes No

Parent/Guardian _____

Street Address _____

City _____ State _____ Zip _____

Home Phone _____ Work Phone _____

Referring Physician _____

Occupational Therapist Evaluator _____ Phone#: _____

Physical Therapist Evaluator _____ Phone#: _____

Name of School _____

Days per Week _____ Hours _____

Therapies: Specify (OT, PT)

Type __ Site _____ Minutes/wk _____

Type __ Site _____ Minutes/wk _____

Summary of Needs for Custom Wheelchair _____

Past Surgeries (if applicable) _____

II. Wheelchair Use

At Home: Yes No At School: Yes No

Number of hours per day child is in wheelchair: _____

Is the home accessible? Yes No

Are modifications needed: (If yes, explain) _____

Means of transporting the wheelchair: _____

Does the child ride a school bus? Yes No

Describe the current wheelchair frame: _____

Can the frame be renovated or resized for further use?

___ Yes, describe what needs to be done: _____

___ No, describe why not: _____

Where was the current wheelchair obtained?

Vendor: _____ Date: _____

Describe the current seating system: _____

Can any components of the current seating system be used?

Yes, list the components: _____

No, describe why not: _____

III. Musculoskeletal Status

A. Pelvis/Hip

Pelvic Tilt:

Neutral Tilt _____

Anterior Pelvic Tilt _____

Posterior Pelvic Tilt _____

Pelvic Obliquity:

Present _____ Not Present _____

Which side is higher?

Left _____ Right _____

Which side is forward?

Left _____ Right _____

Thigh Length:

Left _____ Right _____

Measurement is taken from just behind the hips to the popliteal fossa. For seat depth then subtract 0.5" to 1.0".

Windswept Lower Extremities:

None _____

Toward Left _____ Toward Right _____

Hip Dislocation

None _____

Left _____ Right _____

*Be sure all custom modifications are medically justified.

<p>Custom Modifications and Medical Necessity:</p> <p>Solid Seat: _____ _____ _____</p> <p>Hip Positioners: _____ _____ _____</p> <p>Split Length Seat: _____ _____ _____</p> <p>Positioning Belt: _____ _____ _____</p> <p>Other: _____ _____ _____</p>

B. Skin:

Does the student/child have sensory impairment in his/her lower extremities?

Yes Location _____

No

Has the student/child had skin breakdown?

Yes Location _____

No

What is currently being used for pressure relief? _____

Custom Modifications and Medical Necessity:

Specialized Cushion: _____

C. Trunk/Head:

Spinal Deformities:

None: _____

Kyphosis: _____ Fixed: _____ Correctable: _____

Lordosis: _____ Fixed: _____ Correctable: _____

Scolosis: _____ Fixed: _____ Correctable: _____

C-Curve _____ Location _____

S-Curve _____ Location _____

Describe posture/tone in sitting:

Does posture change when tired?

Yes No

If yes, describe what occurs: _____

Head control in supported sitting?

Is the head erect?

80–100% of the time

50–79% of the time

0–49% of the time

When the head is not erect it is?

Tilted to the left

Tilted to the right

Dropped forward

Hyperextended at the neck

Custom Modifications and Medical Necessity:

Solid Back: _____

Lateral Trunk Supports: _____

Tilt in Space System: _____

Harness System and Strap Guides: _____

Head Control System: _____

Other: _____

D. Lower Extremities:

Tone:

Left: _____

Right: _____

Range of Motion:

List presence of limited ranges or contractures that interfere with positioning:

Hip: Left: _____

Right: _____

Knee: Left: _____

Right: _____

Ankle: Left: _____

Right: _____

Lower Leg Length:

Left _____ Right _____

(Measurement is taken from popliteal fossa to the heel.)

Patterns limiting movement/positioning:

Custom Modifications and Medical Necessity:

Medial Knee Support: _____

Lateral Knee Support: _____

Footrests and Straps: _____

Accommodations for the lower leg length discrepancy: _____

Other: _____

E. Upper Extremities:

Tone:

Left: _____

Right: _____

Range of Motion:

List presence of limited ranges or contractures that interfere with positioning:

Shoulder: Left: _____

Right: _____

Elbow: Left: _____

Right: _____

Wrist: Left: _____
 Right: _____

Describe patterns limiting movement/positioning:

<p>Custom Modifications and Medical Necessity:</p> <p>Upper Extremity Support Surface: _____ _____</p> <p>Elbow Blocks: _____ _____</p> <p>Type of Arm Rest: _____ _____</p> <p>Other: _____ _____ _____</p>

IV. Functional Skill Level:

Codes:

I = Independent D = Dependent A = Assisted

Sitting: Floor _____ Bench _____

Transfers: _____ Describe: _____

Self Care: Feeding _____ Dressing _____ Hygiene _____

Toileting: _____

Is the student ambulatory: Yes No

If yes, check all the conditions/areas in which the student is ambulatory:

Exercise: _____ Household: _____ Community: _____

Assistive Device: Yes No

If "yes" describe: _____

Wheelchair Control:

Dependent _____ Independent _____

Self-propel manually _____

Self-propel power _____

Distances: Long _____ Short _____

Developmental Status:

Describe gross motor ability: _____

Describe fine motor ability: _____

<p>Custom Modifications and Medical Necessity:</p> <p>Type of Frame: _____ _____</p> <p>Type of Wheel Rims: _____ _____</p> <p>Type of Wheels: _____ _____</p> <p>Type of Casters: _____ _____</p> <p>Anti-Tippers: _____ _____</p> <p>Transit Option: _____ _____</p> <p>Extension Handles: _____ _____</p> <p>Other: _____ _____</p>

V. Powered Wheelchair Operation Assessment:

Yes	No
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

- Has severe abnormal upper extremity dysfunction/weakness
- Propels lightweight manual chair
- Has sufficient cognitive/perceptual skills
- Has sufficient eye skills
- Able to operate/control wheelchair during trials
- Has wheelchair accessible transportation
- Facilitates social/recreational skills with wheelchair
- Facilitates learning/educational opportunities with wheelchair

Control switch recommendation: _____

To be controlled by: _____

Briefly describe how the student was able to maneuver the wheelchair during trials

Seating Measurements: (Child must be wearing braces, shoes, body jacket, etc., during all measurements).

Left:

- _____ Behind hips to politeal fossa
- _____ Popliteal fossa to heel
- _____ Knee flexion angle
- _____ Sitting surface to axilla
- _____ Sitting surface to shoulder
- _____ Sitting surface to top of lateral support
- _____ Sitting surface to hanging elbow
- _____ Depth of trunk
- _____ Heel to toe

Right:

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

Other:

- _____ Sitting surface to occiput
- _____ Sitting surface to crown of head
- _____ Width across shoulders
- _____ Width across trunk
- _____ Width across hips
- _____ Width across the thighs
- _____ Seat belt girth
- _____ Head circumference
- _____ Neck circumference
- _____ Height
- _____ Weight

VII: Recommendations:

A. The following wheelchair frames were considered due to their durability, safety, transportability, and their ability to be changed to accommodate physical growth.

Basic Frame	Approximate Cost
1. _____	_____
2. _____	_____
3. _____	_____

B. The most appropriate wheelchair for this child/student is summarized as follows (circle the appropriate responses and/or fill in the blank spaces when necessary):

Frame:

Style:	Reg, Hemi, Kids, Adult, Tall, One Arm Drive, Tilt in Space, Folding, Rigid	
Arm Rests:	Desk, Full-length, Fixed, Height adjustable, Tube, Omit	
Footrest Hangers:	90, 70, 60, Elevating, Smart Leg, Removable, Fixed, Omit	
Footplates:	Standard, Angle adjustable, Fixed, Other	
Rear Wheels:	Pneumatic, Solid, 12, 20, 22, 24, 26, Spoke, Mag	
Front Casters:	Pneumatic, Solid 3, 5, 6, 8, 10, 12	
Brakes:	Push, Pull, High Mount, Low Mount	
Brake Extensions:	L, R, Both	
Back Height:	8, 10, 12, 14, 16, 18, 20, 22, 24, Other:	
Seat Width:	8, 10, 12, 14, 16, 18, 20, 22, 24, Other:	
Seat Depth:	8, 10, 12, 14, 16, 18, 20, 22, Other:	
Tilt in Space:	Manual, Power, Omit	
Recline:	Manual, Power, Omit	
Anti Tippers:	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Transit Option:	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Extension Handles:	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Power Chair:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Type of battery: Acid, Gel
Joystick Mount:	Right, Left, Center, Other: N/A Swing away, Fixed	
Joystick Handle:	Ball, T-Style, Straight Stick, N/A, Other	
Programmable by:	User, Dealer, Both, N/A	
Computer/AAC Mount:	Describe: _____ _____ _____ _____	

C. Custom Modifications:

Solid Seat: Removable, Fixed, Split Length Right Left

Hardware: Fixed, Adjustable

Foam Type: Thickness: ½” 1” 2”

Other:

Cover: Vinyl, Para, Color:

Solid Back: Removable, Fixed, I Back, T Back

Hardware: Fixed, Adjustable

Foam Type: Thickness ½” 1” 2” Other:

Cover: Vinyl, Para, Color:

Special Cushion: Describe: _____

Special Back: Describe: _____

Positioning Belt: Buckle, Airplane, Velcro, Plastic, Metal

Width: 1” 1½” 2”

Padded Nonpadded Other _____

Lateral Thigh Supports: Fixed, Swing away

Pad Size: _____

Lateral Trunk Supports: Fixed Removable Swing away

Pad Size: _____

Straight Curved

Hip Positioners: Fixed, Swing away Pad Size: _____

Medial Thigh Supports: Fixed, Removable, Flip Down, Pad Size: _____

Anterior Knee Block: Yes No

Subbasis Bar: Yes No

Ankle Straps: Velcro Buckle, D-ring, Leather

Size: _____ Width: _____ Length Each Side: _____

Heel Loops: ABS, Fabric, Shoe Holder, Other:

Toe Loops: Velcro, Buckle, D Ring, Leather, NA

Size: _____ Width: _____ Length Each Side: _____

Headrest: Fixed, Removable, Flip Down

Describe: _____

Upper Extremity

Support Surface: Lexan, Wood, Other: _____ Omit

Mounting Hardware: Cams, Toggle, Slide On

Elbow Blocks: On Tray, On Chair Pad Size: _____ Omit

Harness System: H-Style, X-Style, Chest Belt, Padded, Soft, Hard Rubber

Strap Guides: Yes No

Arm Rest Pads: Standard, Troughs, Flat Pad Size

Shoulder Retractors: Length: _____ Pad Size: _____

Signature Page

This is to certify that the following people have been consulted and/or participated in this evaluation for an adaptive seating and mobility system for _____.

Student's Name

Conflict of Interest

This also certifies that no consultant or participant in this evaluation process has any fiduciary interest or association with manufacturers, vendors, or dealers of the above prescribed equipment.

Signatures

Occupational Therapist Signature: _____ Date: _____

Name Printed or Typed: _____

Medicaid Provider Number: _____

Physical Therapist Signature: _____ Date: _____

Name Printed or Typed: _____

Medicaid Provider Number: _____

Physician Signature: _____ Date: _____

Name Printed or Typed: _____

Physician Medical Provider Number: _____

Physician DEA Number: _____

Parent/Legal Guardian Signature: _____ Date: _____

Name Printed or Typed: _____

DME Signature

DME Provider Signature: _____

Date: _____

Name Printed or Typed: _____

Medicaid Provider Number: _____

Appendix A: Teacher/School Environment Checklists

Functional Mobility/Self-Help Assessment

Mobility

1.	Child can ascend/descend school bus steps:	functional	supervision/prompts	with physical assistance	emerging	N/A
2.	Child ambulates with/without assistive devices:	functional	supervision/prompts	with physical assistance	emerging	N/A
3.	Child uses manual/power wheelchair:	functional	supervision/prompts	with physical assistance	emerging	N/A
4.	Child transfers:	functional	supervision/prompts	with physical assistance	emerging	N/A
5.	Child can push/pull exterior school doors:	functional	supervision/prompts	with physical assistance	emerging	N/A
6.	Child can turn knobs of interior school doors:	functional	supervision/prompts	with physical assistance	emerging	N/A
7a.	Child can ascend/descend stairs with/without handrail:	functional	supervision/prompts	with physical assistance	emerging	N/A
7b.	Child can ascend/descend stairs two feet on each step:	functional	supervision/prompts	with physical assistance	emerging	N/A
7c.	Child can ascend/descend stairs step-over-step pattern:	functional	supervision/prompts	with physical assistance	emerging	N/A
8.	Child can use playground equipment:	functional	supervision/prompts	with physical assistance	emerging	N/A
9a.	Child can maneuver in hallways:	functional	supervision/prompts	with physical assistance	emerging	N/A
9b.	Child can maneuver on ramps:	functional	supervision/prompts	with physical assistance	emerging	N/A
9c.	Child can maneuver on curbs:	functional	supervision/prompts	with physical assistance	emerging	N/A
9d.	Child can maneuver on uneven surfaces:	functional	supervision/prompts	with physical assistance	emerging	N/A

10.	Child is in regular physical education/adapted physical education: functional supervision/prompts	with physical assistance	emerging	N/A
-----	--	--------------------------	----------	-----

Bathroom

- | | | | | |
|----|---|--------------------------|----------|-----|
| 1. | Child can access exterior bathroom door:
functional supervision/prompts | with physical assistance | emerging | N/A |
| 2. | Child can open stall doors:
functional supervision/prompts | with physical assistance | emerging | N/A |
| 3. | Child can pull pants down/pull pants up:
functional supervision/prompts | with physical assistance | emerging | N/A |
| 4. | Child can transfer onto toilet/off toilet:
functional supervision/prompts | with physical assistance | emerging | N/A |
| 5. | Child can use toilet paper:
functional supervision/prompts | with physical assistance | emerging | N/A |
| 6. | Child can wash own hands:
functional supervision/prompts | with physical assistance | emerging | N/A |
| 7. | Child can dry own hands:
functional supervision/prompts | with physical assistance | emerging | N/A |
| 8. | Child can use potty chair with/without arms, with/without tray:
functional supervision/prompts | with physical assistance | emerging | N/A |
| 9. | Child uses toilet with adaptive seating/rails:
functional supervision/prompts | with physical assistance | emerging | N/A |

Cafeteria

- | | | | | |
|----|---|--------------------------|----------|-----|
| 1. | Child can carry tray through line:
functional supervision/prompts | with physical assistance | emerging | N/A |
| 2. | Child can set up meal/set up drink:
functional supervision/prompts | with physical assistance | emerging | N/A |
| 3. | Child can eat with regular utensils/adapted utensils/finger food:
functional supervision/prompts | with physical assistance | emerging | N/A |
| 4. | Child can use regular/adapted cup:
functional supervision/prompts | with physical assistance | emerging | N/A |

- | | | | | |
|----|---|--------------------------|----------|-----|
| 5. | Child can/cannot use straw:
functional supervision/prompts | with physical assistance | emerging | N/A |
| 6. | Child can feed self:
functional supervision/prompts | with physical assistance | emerging | N/A |

Classroom

- | | | | | |
|-----|---|--------------------------|----------|-----|
| 1. | Child can put on/take off coat:
functional supervision/prompts | with physical assistance | emerging | N/A |
| 2. | Child can use fasteners/zippers/buttons:
functional supervision/prompts | with physical assistance | emerging | N/A |
| 3. | Child can put on/take off boots, shoes, mittens, hat:
functional supervision/prompts | with physical assistance | emerging | N/A |
| 4. | Child can use regular desk:
functional supervision/prompts | with physical assistance | emerging | N/A |
| 5. | Child uses wheelchair with/without tray:
functional supervision/prompts | with physical assistance | emerging | N/A |
| 6. | Child can use pencil/pen/scissors/paste:
functional supervision/prompts | with physical assistance | emerging | N/A |
| 7. | Child can get items from desk:
functional supervision/prompts | with physical assistance | emerging | N/A |
| 8. | Child can get items from backpack:
functional supervision/prompts | with physical assistance | emerging | N/A |
| 9. | Child can access computer:
functional supervision/prompts | with physical assistance | emerging | N/A |
| 10. | Child can use stool in art/music:
functional supervision/prompts | with physical assistance | emerging | N/A |
| 11. | Child has adequate sitting balance:
functional supervision/prompts | with physical assistance | emerging | N/A |
| 12. | Child attends task/follows directions:
functional supervision/prompts | with physical assistance | emerging | N/A |
| 13. | Child can pick things up off the floor:
functional supervision/prompts | with physical assistance | emerging | N/A |

- | | | | | | |
|-----|---|---------------------|--------------------------|----------|-----|
| 14. | Child can get up off the floor: | | | | |
| | functional | supervision/prompts | with physical assistance | emerging | N/A |
| 15. | Child is mobile in classroom-ambulation/wheelchair/walker/bunny hops: | | | | |
| | functional | supervision/prompts | with physical assistance | emerging | N/A |

Appendix B: Home Environment Information Form

Home Environment Information

NAME: _____ DOB: _____ DOE: _____

The information can be completed by the parent/guardian or with the assistance of the occupational/physical therapist. The purpose of this form is to gather information regarding the student's home environment in order to make recommendations to assist the student in becoming more independent.

I. HOME DESCRIPTION

Address: _____

Circle the best description of your home: Single Family (___ number of floors)
Duplex (___ number of floors) Apartment (which floor? ____) Mobile Home

Do you ___ rent ___ own your home?

If you rent, will the landlord let you make physical changes, such as installing railing? Yes No

II. HOME ENTRANCE

A. GROUND SURFACE/YARD SURFACE

Circle the type of ground your child travels over to get into your home.

Paved sidewalk Paved Driveway Grass Gravel
Is the ground: Level Hilly

B. STAIRS

Do you have outside stairs? Yes No Number of steps: _____

Is there a railing? Yes No What side? Left Right

Would additional railing assist your child? Yes No

Can your child get up and down the stairs without assistance? Yes No

If "no," please describe how you help your child: _____

Height of each step _____ inches Width of each step _____ inches

Is there a lip on the step that is interfering with your child's ability to climb the stairs?
Yes No

C. RAMP

Do you have a ramp? Yes No

If "yes," what type of surface is on the ramp (e.g., metal, painted wooden, textured)?

Please note if the ramp gets slippery when wet. _____

Can your child get up and down the ramp without assistance? Yes No

If "no," please describe how you help your child: _____

III. INSIDE: CHILD'S BEDROOM

A. FLOOR PLAN

On the other side of this paper please draw a diagram of your child's bedroom. Show the position of the bed, chairs, and chest of drawers, noting in inches the spaces between the items.

Would eliminating a piece of furniture assist your child in moving? Yes No

Would a different floor plan help? Yes No

B. DOORWAY

Width of doorway: ____ inches Is there a threshold/doorsill? Yes No

Can your child get into the room independently? Yes No

If your child cannot get into this room independently, would there be additional doorway space if the door was hung differently? Yes No

D. FLOOR SURFACE

Circle the type of floor covering in your child's bedroom:

Wall-to-wall carpet Scatter rugs Tile Wood Vinyl

Is the floor too slippery? Yes No

Are scatter rugs interfering with mobility? Yes No

D. BED

Type: Single Double Queen King Hospital Bed Other _____

Height from floor to top of mattress: _____ inches

Would raising or lowering the bed assist your child with transfers? Yes No

E. TRANSFERS

Describe how your child gets into bed: _____

Describe how your child gets out of bed: _____

If you lift your child into and out of bed, is your child becoming too large/heavy for you to lift?
Yes No

IV. BATHROOM

A. FLOOR PLAN

On the other side of this paper please draw a diagram of the bathroom your child uses. Show the position of the toilet, tub or shower, and sink, noting in inches the space between the items. Is there an additional bathroom that may be more adaptable?

B. DOORWAY

Width of doorway: ____ inches Is there a threshold/doorsill? Yes No

Can your child get into the bathroom independently? Yes No

If "no," describe why not: _____

Would a narrower wheelchair fit through the doorway? Yes No

C. TOILET

Height from floor: _____ inches

Do you have a raised/ elevated toilet seat? Yes No

Toilet rails? Yes No

(If "yes," note the location on your bathroom floor plan.)

Describe how your child gets on the toilet: _____

Describe how your child gets off the toilet: _____

Once on the toilet, can your child sit independently? Yes No

Is the toilet paper accessible? Yes No

Does your child need an adapted potty chair or trunk support? Yes No

Fill in either section D or E, depending on your bathroom.

D. TUB

Height from the floor to the top of the rim: _____ inches

Inside tub width: _____ inches

Do you have a curtain or glass door? (Circle whichever applies)

If a glass door, what is the width in inches? _____

Describe how your child gets into the tub: _____

Describe how your child gets out of the tub: _____

Once in the tub, can your child sit independently? Yes No

If "no," describe the problem: _____

Does your child need some type of support while in the bathtub? Yes No

E. SHOWER STALL

Do you have a curtain or glass door? (Circle whichever applies)

Entrance width to shower stall: _____ inches Height of bottom rim: _____ inches

Describe how your child gets into the shower stall: _____

Describe how your child gets out of the shower stall: _____

Once in the shower stall, can your child stand independently? Yes No

If "no," describe the problem: _____

Would a shower chair assist your child? Yes No

Is there a need for railing? Yes No Nonskid mat? Yes No

F. SINK

Are the faucets accessible? Yes No

What is the knee space under the sink? _____ inches

Are there exposed pipes under the sink? Yes No

Should the exposed pipes be padded? Yes No

Is the towel rack accessible? Yes No

V. INSIDE THE HOME

Can your child move without assistance from the room to room within your home?

Yes ___ No ___

If "no," please describe the problem: _____

Are the widths of the doorways a problem? Yes No

Does the floor covering in the house interfere with your child's mobility? Yes No

VI. TRANSPORTATION

Type of car: two door four door van

Front seat: Standard Bucket (circle) Seat Belts: Yes No

Rear seat: Standard Bucket (circle) Seat Belts: Yes No

Describe how your child gets into the car: _____

Describe how your child gets out of the car: _____

Once in your car how does the child sit?

_____ independently _____ in a car seat (Type: _____)

_____ in a travel chair _____ other _____

Type of van _____ Do you have a lift? Yes No

If "no," how do you get your child in and out of the van? _____

VII. POSITIONING EQUIPMENT

Please describe any special positioning equipment your child uses at home (e.g., special chair, a standing device, etc.). List any equipment you have but are unable to use and why (e.g., child has outgrown it, no longer needs it, equipment is in need of repairs, etc.).

VIII. CONCERNS

Please list any other problems or concerns that you may have regarding your child functioning as independently as possible at home, such as in the kitchen.

Parent/ Guardian Signature _____

Date _____

Appendix C: Developmental Skills Guides

The ages and milestones presented in the following guides are approximations and may vary when other resources are used. These guides are not designed to be a complete description at each age level, but are to be use as a quick reference. For additional information about developmental skills see the following references:

- Gross Motor (Bruininks & Bruininks, 2006; VORT Corporation, 1995)
- Fine Motor (Bruininks & Bruininks, 2006; Case-Smith & Pehoski, 1992; Erhardt, 1990; Erhardt, 1999; Henderson & Pehoski, 1995; VORT Corporation, 1995)
- Self-care skills (Coster et al, 1998; Henderson & Pehoski, 1995; VORT Corporation, 1995)

GROSS MOTOR DEVELOPMENT

0–1 months

- Predominant head lag
- Head falls on chest
- May extend momentarily

0–2 months

- Lifts head momentarily from prone
- Turns head to both sides in supine

3 months

- Supports himself on forearms and raises thorax and head off bed when prone
- Rolls supine to side lying

4 months

- Holds head steady
- Pulls to sit with head in midline
- Sits if propped
- Bears part of weight when held upright
- Reaches for and grasps toy
- Has symmetrical postures

5–6 months

- Lifts head while supine
- Bears large amount of weight on legs
- Rolls from prone to supine
- Sits by leaning on hands, head erect
- Displays protective reactions forward
- Rolls from supine to prone

7–8 months

- Transfers object from hand to hand
- Sets in hand-knee position (4-point kneel)
- Helps hold bottle when being fed
- Pivots on abdomen, using hands and feet
- Sits indefinitely unsupported
- Has equilibrium reactions

9–10 months

- Creeps with true alternating creeping
- Gets into sitting position without help and recovers lost balance
- Pulls to standing
- Drinks from cup if assisted
- Moves about independently and explores
- Can side sit

11–12 months

- Balances momentarily while standing alone
- Cruises holding onto furniture
- Walks when one hand is held

13–15 months

- Walks alone – unequal steps on broad base
- Rises to standing and lowers independently
- Stops and starts walking without falling
- Climbs stairs when hand is held

16–18 months

- Runs stiffly with only occasional falls
- Climbs onto chair and bed
- Creeps up and down stairs
- Stands on one foot with help

19–21 months

- Runs well with little falling
- Climbs stairs holding onto rail, both feet on same step (marking time)
- Walks backwards

22–24 months

- Runs without falling but headlong
- Picks up object from floor
- Squats to roll and catch a ball

2–2½ years

- Can walk on tip toes
- Jumps with both feet in place
- Stands up from the floor without support
- Kicks ball with one hand 5 to 7 feet

3 years

- Goes up stairs alternating feet, both feet on same step (marking time) going down
- Jumps from bottom step
- Rides tricycle
- Shows reciprocal arm and leg gait pattern
- Runs on toes
- Stands on one foot for two seconds

GROSS MOTOR DEVELOPMENT

4 years

- Goes up and down stairs alternating feet without rail
- Balances on one foot for four to eight seconds
- Throws ball overhand

6 years

- Jumps from 12-inch height, landing on toes
- Stands on alternating feet with eyes closed
- Shows advanced throwing (mature pattern) with accurate placement
- Walks forward, backwards, sideways on balance beam
- Hops on one foot
- Tandem walks backwards

5 years

- Gallops
- Skips with alternating feet
- Stands on one foot for more than eight seconds
- Tandem walks forward
- Catches thrown playground ball with both hands
- Uses a swing

FINE MOTOR/VISUAL MOTOR DEVELOPMENT

0–2 months

- Moves arms symmetrically
- Shows grasp reflex
- Responds to different light intensities

1–3½ months

- Shows asymmetrical reach
- Brings hands to midline in supine
- Attempts to reach towards object
- Recognizes hands
- Begins vertical tracking downward, often loses object

2–4 months

- Grasps toy actively

3–5 months

- Has ulnar palmar grasp – wrist flexed with no thumb involvement
- Exhibits inhibited grasp reflex
- Shows bilateral symmetrical reach
- Moves head to track a moving object
- Shows prolonged looking at objects at midline
- Looks for lost object outside visual field

4–5 months

- Demonstrates palmar grasp – using all fingers, thumb not opposed
- Begins to move hand under visual control

5–7 months

- Has raking grasp
- Transfers object from one hand to the other
- Has radial palmar grasp
- Under reaches, adjusts, and obtains
- Exhibits accidental release
- Tracks vertically and diagonally with jerky eye movements

7–10 months

- Exhibits inferior pincer grasp
- Exhibits radial digital grasp
- Exhibits three-jaw chuck grasp
- Exhibits lateral pinch
- Drops object into large container opening

- Controls wrist and fingers with arm extended
- Demonstrates object permanence

10–12 months

- Exhibits neat pincher grasp
- Bangs two objects together
- Shows development of supinated grasp
- Reaches overhead in sitting position
- Manipulates an object with one hand while the other stabilizes

15 months

- Places objects in and out of container with small opening
- Points with index finger

18 months

- Builds three-block tower
- Puts peg in 1” hole
- Turns pages two to three at a time
- Scribbles spontaneously

3 years

- Builds nine-block tower
- Assists with one hand
- Screws lid on jar
- Places ten pellets in bottle (30 seconds)
- Grasps with extended wrist and thumb opposition
- Turns doorknob with forearm rotation
- Imitates building cube bridge
- Snips with scissors

3–4 years

- Exhibits definite hand preference
- Begins to color
- Copies circle, imitates a cross
- Traces diamond, angles rounded
- Draws designs without detail
- Begins to cut with scissors on wide lines
- Throws ball overhead
- Catches large ball with arms
- Scribbles with intense spots of color
- Completes shape formboards and simple puzzles

FINE MOTOR/VISUAL MOTOR DEVELOPMENT

4–5 years

- Exhibits dominant hand is established
- Shows finger isolation
- Traces simple designs and mazes
- Copies cross and square
- Colors within lines
- Draws simple picture of person
- Cuts straight or simple curved lines
- Cuts circle and square
- Catches ball using hands and arms

5–6 years

- Copies diagonal lines and triangle
- Prints name
- Begins to form letters
- Colors small area of detail
- Draws detailed pictures of person
- Draws designs with detail
- Cuts convex and concave shapes
- Shows controlled tracking skills in vertical, horizontal, circular, and diagonally (no head movement)

6–7 years

- Uses a mature pattern when manipulating a writing instrument (movements generated from fingers)
- Copies letters (still some inverted or reversed)
- Writes upper and lower case letters with differences in sizes and limited spacing
- Shows mature figure-ground skills
- Shows body awareness has been established

7–9 years

- Writes more neatly and legibly spaced
- Begins cursive writing
- Exhibits position in space development complete
- Shows directional concepts

RELEASE

The following is the developmental sequence of release.

0–9 months

- Drops objects

9 months

- Releases against another surface

10 months

- Exhibits crude release, systematic dropping (voluntary)

11 months

- Releases large objects with ease, clumsy
- Releases small objects

12 months

- Exhibits smooth voluntary release of large objects
- Exhibits crude but voluntary release of small objects

15 months

- Exhibits voluntary smooth controlled release of all objects

GRASP

The following is the developmental sequence of grasp.

12 weeks	Reflexive, ulnar side strongest
16 weeks	Ulnar side weakening
20 weeks	Primitive squeeze; no thumb or palm involved; raking
24 weeks	Palmar; no thumb participation
28 weeks	Radial palmar; whole hand grasp, thumb adducted
32 weeks	Scissors, thumb abducted to side curled index finger
36 weeks	Radial digital, thumb opposed to end of fingers
40 weeks	Inferior finger, thumb moves toward dip joint of index finger; other fingers inhibited
44 weeks	Neat pincer, with slight wrist extension
52 weeks	Opposed grasp
3–4 years	Static tripod posture; pencil grasped proximally; crude approximation of thumb, index, and middle fingers; continual adjustments by other hand; ring and little fingers only slightly flexed, no fine, localized movements of components
4–6 years	Dynamic tripod posture; pencil grasped distally; precise opposition of distal phalanges of thumb, index, and middle fingers; ring and little fingers flexed to form stable arch; metal-carpal joints stabilized during fine localized movements of interphalangeal joints Lateral prehension; key or card held between pad of thumb and lateral surface of index near dip joint Spherical grasp; ball or door knob grasped with flexion at all finger joints, hand cupped over object Cylindrical grasp; small jar or large peg

These ages are approximations and may vary when other resources are used. This is not designed to be a complete description at each age level. Use as a quick reference.

FEEDING DEVELOPMENT

0–3 months

- Gag reflex (diminished by 7 months)
- Rooting reflex
- Suck–swallow reflex
- Drools
- Anticipates feeding
- Brings fingers to mouth

3–6 months

- Phasic bite-and-release pattern used for most things placed in mouth (biting is not controlled or sustained)
- Uses tongue to move pureed food in mouth
- Swallows pureed food
- Gumming action on solid food like cracker (jaw movements are up and down)

6–9 months

- Holds bottle without assistance, may remove and replace
- Feeds self cracker, munching pattern
- Tongue retraction in sucking
- Absence of tongue protrusion during spoon feeding
- Can protrude tongue
- Can lateralize tongue

9–12 months

- Finger feed dry cereal, soft foods, mashed table foods
- Voluntary biting on food and objects
- Helps guide spoon and cup to mouth
- Controls drooling

12–18 months

- Finger feeds part of meal
- Bites and chews food well (rotary chewing)
- Holds own spoon, pronated grasp
- Scoops food
- Directs spoon to mouth without spillage, palm down
- Turns spoon over in mouth
- Drinks well independently, few spills (good coordination of suck, swallow, and breathing)

18–24 months

- Distinguishes edible versus no edible
- Uses fork
- Unwraps edible item
- Gives up bottle
- Drinks from cup

2–3 years

- Sucks through a straw
- Tongue-tip elevation used for swallowing
- Holds small cup in one hand
- Brings spoon to mouth, palm up
- Eats meats and raw vegetables
- Feeds self independently with set up with little spillage
- Uses a rotary chew pattern
- Lips are closed during chewing
- Opens jars
- Pours from a small container

3–4 years

- Get drink from faucet
- Attempts to cut with knife

4–5 years

- Holds spoon with fingers for solid foods
- Holds fork with fingers
- Uses straw without mashing the end
- Fixes dry cereal
- Pours from large container
- Uses napkin

5–6 years

- Cuts with knife soft foods
- Carries drink without spillage

6–7 years

- Cuts independently with knife
- Makes simple sandwich

PERSONAL CARE DEVELOPMENT

9–12 months

- Removes socks in sitting position

1–2 years

- Assists with dressing, holds arms out, putting foot up for shoe
- Pushes leg through pants
- Takes off hat
- Pulls off shoes
- Pulls of sock
- Indicates when wet or soiled

2–3 years

- Removes unfastened garments and elastic waist pants
- Removes coat, with help with fasteners
- Puts on front-button shirt and jacket with help with fasteners
- Puts on socks with difficulty with heel placement
- Helps push down pants (standing)
- Unzips front or side zipper
- Unsnaps
- Indicates need for using the bathroom but may need reminders
- Needs supervision for brushing or combing hair

3–4 years

- Needs assistance to remove and put on pullover shirt
- Independent with pull-down garments (pants and underpants)
- Puts on socks with heel placement
- Puts on shoes, may be on wrong feet
- Puts on jacket
- Unlaces shoes
- Unbuttons and buttons large buttons
- Unsnaps and snaps
- Unzips and zips jacket
- Unbuckles and buckles shoes or belt
- Covers mouth when coughing upon request
- Washes and dries hands
- Blows and wipes nose
- Goes to bathroom independently, able to on and off commode without assistance

4–5 years

- Laces with supervision for sequencing
- Buttons large buttons
- Zips, locking tab
- Zips, aligning separating zipper
- Washes and dries face
- Brushes teeth
- Puts belt in loops
- Manages shoes with Velcro

5–6 years

- Puts on pullover garment correctly
- Buttons medium buttons
- Dresses self with assistance for back fasteners, small buttons, bows
- Puts shoes on correct feet
- Laces
- Ties a knot
- Cleans and wipes nose independently
- Completely cares for toileting needs

6–7 years

- ties a bow
- buttons small buttons
- closes back zipper
- brushes or combs hair independently

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