## Stepping Stones for Translating Cognitive Development into Educational Skills

Name of Student: $\qquad$ Date of Assessment: $\qquad$ Person completing checklist: $\qquad$
Because individuals with multiple disabilities are often unable to volitionally control motor movements, including speech, any skill that involves motor movement more complex than non-speech vocalizations, looking, touching, or reaching has not been included in this framework.
Use the following guide for each box. Stop once you reach at least $80 \%$ of the boxes without demonstration of skills.
Y - skill demonstrated consistently - 80\%+
S - skill sometimes demonstrated - $50 \%$
$\mathbf{N}$ - skill not demonstrated - $0 \%$

## Cognitive Skill Level One

|  | Developmental Skill | Elementary Example | Middle/ Secondary School Example | Examples for Adults |
| :---: | :---: | :---: | :---: | :---: |
| N | 1. Reacts to loud sounds or lights by stopping activity, briefly looking at a lighted object within visual field | At music, looks at instrument being played loudly by another student | Gazes at computer screen with bright colours | Changes facial expression when a vacuum cleaner is turned on |
| N | 2. Briefly looks at people | Briefly looks at teacher saying "hi" | Briefly looks at EA saying "hi" | Briefly looks at a friend saying "hi" |
| N | 3. Visually attends briefly to object within visual field | Briefly looks at a ball during gym time | Briefly looks at food item during snack or lunch | Briefly looks at object cue before going to an activity |
| N | 4. Quiets to sound (more to voice than other sounds), from within 2 feet | Stops movement or vocalization when EA speaks to him/her | Stops movement or vocalization when a peer speaks directly to him/her | When an adult worker speaks directly to him/her, stops moving/vocalizing |
| N | 5. Anticipates eating at the sight of food | Opens mouth at the sight of food | Vocalizes at the sight of food | Smiles at the sight of food |
| N | 6. Searches for a voice with eyes: _to R; $\qquad$ to the L; $\qquad$ from behind | Moves head or eyes only at the sound of EA's voice | Moves head or eyes only at sound of peer's voice | Moves head or eyes only at sound of adult worker's voice |


| N | 7. Turns head to glance from one noise to another from distance of 1$2^{\prime} \mathrm{ft}$ | Turns head toward 2 musical instruments played by peers from 1$2^{\prime}$ | Turns head in direction of 2 musical instruments played by peers from 1-2' | Turns head in direction of 2 musical instruments played from 1-2 feet away |
| :---: | :---: | :---: | :---: | :---: |
| N | 8. Searches for sound with eyes from a distance of $2^{\prime}:$ _ to the R $\qquad$ to the L | As above, only just eyes move | As above, only just eyes move | As above, only just eyes move |
| N | 9. Visually follows a moving person/ object; fixating on person/object momentarily | During lunch, tracks spoon/cup moving towards him/herself; briefly holds gaze on item | Visually follows a ball being tossed between 2 peers | Visually follows items being sorted in a recycling program |
| N | 10. Recognizes faces | Smiles at EA when greeted | Smiles at homeroom teacher when greeted | Smiles at adult worker when greeted |
| N | 11. Shifts gaze from 1 object to another | Shifts gaze between 2 objects shown in circle time | Shifts gaze between 2 different objects being discussed in a science class | Shifts gaze between 2 different food items being used when making dinner |
| N | 12. Responds differently to a variety of sounds | Demonstrates different responses to a variety of musical instruments | Demonstrates different responses to various pieces of music played by band members | Demonstrates different responses to various types of music |
| N | 13. Makes pleasure sounds | When receiving a hand or foot massage, makes happy sounds | When playing floor hockey in the gym with peers, makes happy sounds | When playing 'Twister' with friends, makes happy sounds |
| N | 14. Uses different intonation patterns to express different needs (request attention, express discomfort, hunger, etc.) | Vocalizes to request attention from EA | Vocalizes to express discomfort in wheelchair | Vocalizes to express hunger when it is near a snack or lunch time |
| N | 15. Responds to own name by looking for the source of the voice | Responds to name being called at roll call by looking at teacher | Responds to name being called for turn in a game | Responds to name being called by an adult worker passing by |
| N | 16. Begins to anticipate events through different movement, facial expressions, etc. | Changes in behaviour when sees jacket (e.g., smiles, increases arm movement) | Changes in behaviour when entering the band room | Changes in behaviour when entering the recreation centre |


| N | 17. Smiles when interacting with <br> familiar people | Smiles when teacher interacts with <br> him/her | Smiles at peer tutor | Smiles at day program worker |
| :--- | :--- | :--- | :--- | :--- |

## Cognitive Skill Level Two

|  | Developmental Skill | Elementary School Example | Middle/Secondary School Example | Examples for Adults |
| :---: | :---: | :---: | :---: | :---: |
| N | 1. Responds to name called from 5-6' away, or from a background of sounds | Teacher calls out name for attendance from 5-6' away | Peer calls out name of student in gym class | Adult worker calls out person's name from 5-6' in a noisy mall |
| N | 2. Attends to music or singing | Attends to singing at circle time | Attends to music in band class | Attends to music at a concert |
| N | 3. Looks at objects when their names are spoken; looks at them for 10 seconds | Looks at a named book for 10 seconds | Looks at named shaker being used in music class for 10 secs | Looks at named blender used in meal preparation for 10 secs |
| N | 4. Shows interest in named pictures, for up to 1 minute | Looks at pictures in book as they are being name, for 1 minute | Looks at named food pictures for up to 1 min in foods class | Looks at photos as they are being named for up to 1 minute |
| N | 5. Gestures/vocalizes to: gain attention; request; protest; greet, call, comment | Gestures/vocalizes to request more of a song | Gestures/vocalizes in response to a greeting | Gestures/vocalizes when observing an interesting event |
| N | 6. Understands nonverbal, situational cues | Reacts when shown an object cue representing an upcoming activity | Reacts when shown object cue representing upcoming activity | Reacts when shown an object cue representing an upcoming activity |
| N | 7. Often appears to be listening to conversations by others | Directs gaze, quiets when peers are chatting during centre time | Directs gaze, quiets when peers are chatting at lunch time | Directs gaze, quiets when group home staff are chatting |
| N | 8. Initiates a topic by combining glances \& vocalizations | In gym, looks at ball, then at peer; gestures/vocalizes | In music, looks, vocalizes, etc. at drum being played, then at E.A.; | When bus arrives, looks, vocalizes, etc. at it, then at adult worker |
| N | 9. Takes 1 or 2 turns | In music, will take a couple of turns with musical instrument | Will take a couple of turns with a peer when using the computer | Will take a couple of turns with another friend during a game |


| N | 10. Laughs/smiles at an unusual <br> action by a familiar person (e.g., <br> waddling like a penguin, making <br> silly faces/sounds) <br> Understands 3-50 words | Laughs/smiles when peers pretend <br> to be different animals | Laughs/smiles when peers <br> engage in slapstick humor | Laughs/smiles when a friend is acting <br> silly |
| :--- | :--- | :--- | :--- | :--- |

## Cognitive Skill Level Three

|  | Developmental Skill | Elementary School Example | Middle/Secondary School Example | Examples for Adults |
| :---: | :---: | :---: | :---: | :---: |
| N | 1. Receptively identifies 10 familiar objects by looking at, reaching, etc. | Look at the book | Find your jacket | Where's the bus? |
| N | 2. Receptively identifies 1 to 5 body parts by looking at, reaching, etc. | "Where's your hand?" | "Look at your toes" | "Touch your leg" |
| N | 3. Begins to link object to function | Show me what wear, etc. | Which one do we read? | What do we need to cook with? |
| N | 4. Understands "no" | Stops vocalizing loudly in class when hears "no" | Stops putting hand in mouth when hears "no" | Stops reaching out to grab others when hears "no" |
| N | 5. Responds to verbal cues/one step directions within physical ability | Sits up, hands quiet, when hears, "Get ready" verbal cue | Activates a switch when hears verbal cue, "Hit the switch" | "Lift up your arms" (in order to get wheelchair tray on) |
| N | 6. Identifies 3 different pictures by looking at, reaching, touching, etc. | "Show me the computer" | "Look at the book" | "Where's the cookie (picture)?" |
| N | 7. Responds to simple yes/no questions | When offered a non-preferred food item, \& asked, "Do you want the ...?, shakes head 'no' | When offered a ball in P.E., and asked, "Do you want this ball?, shakes head 'no' | When offered a book at the library, and asked "Do you want to read this book?" reaches towards it |


| N | 8. Understands concept of "more": responds to question; makes request for "more" of pleasurable object/activity" | Do you want more to drink? | During gym time, asks, by vocalizing, to be pushed around the track some more | During a meal, ask for more food by looking at food item |
| :---: | :---: | :---: | :---: | :---: |
| N | 9. Understands that an object still exists even when it isn't in view | Looks for, gestures, etc. to request favourite book that's underneath a couple of other books | Looks for, gestures, etc. to request favourite computer program | Looks for, gestures, etc.. request favourite music tape/CD |
| N | 10. Enjoys looking at picture books | Smiles/looks at picture books being read by a peer | Smiles/looks at animal books with photos | Smiles/looks at magazine of interest |
| N | 11. Imitates or echoes sounds/words | Attempts to imitate "hi" | Attempts to imitate "bye-bye" | Attempts to imitate "hey" |
| N | 12. Begins to match similar object | In math, matches objects being counted | In music, matches cymbal with other cymbal | In meal prep, matches egg with another egg |
| N | 13. Distinguishes between 'you' and 'me' | Answers question, "Whose coat is this?" | Follows direction, "Give it to me" | Gestures towards self when given choice between " $y o u$ " or " $m e$ " |
| N | 14. Requests by pointing and vocalizing | When given a choice of 2+ objects/activities, gestures, points, vocalizes, etc. to make a choice | Gestures/points/looks etc. at something in hallway to signal a request to look at it | Gestures, points, looks, etc. to request a visible object/activity |
| N | 15. Requests cessation of activity, using facial expressions, vocalizations, etc. | Frowns to signal end of exercise routine | Turns head away to signal end of computer time | Refuses to open mouth to signal end of lunch time |
| N | 16. Indicates displeasure when object is removed, using facial expressions, etc. | Pouts when favourite 'fidget' toy is removed | Vocalizes in an unhappy way when juice container is put away | Becomes physically agitated when favourite video is put away |
| N | 17. Begins to relate object to symbol or line drawings | When sees picture symbol for object, looks for object | When sees picture symbol for outing, looks toward door | When sees picture symbol for drink, reaches toward cup |
| N | 18. Calls person's attention to objects by pointing, gesturing, vocalizing, etc. | Vocalizes, gestures, etc. to draw E.A.'s attention to visiting dog | Vocalizes, gestures, etc. to draw peer's attention to new item of clothing | Vocalizes, gestures, etc. to call adult worker's attention to object that has dropped on the floor |


| N | 19. Responds to humor <br> involving using objects in <br> 'wrong' ways (e.g., placing a <br> sock on a hand instead of the <br> foot) | Smiles, etc. when E.A. uses an object <br> the 'wrong' way | Smiles, etc. when peers use objects <br> the 'wrong' way when performing <br> a skit | Smiles, etc. when watching a video in <br> which people use objects the 'wrong' <br> way |
| :--- | :--- | :--- | :--- | :--- |
| N | 20. Perceives others' emotions. <br> Uses different facial expression, <br> body language, vocalizations <br> when observing others <br> expressing happiness, anger, etc. | During circle time, responds to <br> different emotional states displayed <br> by students through facial <br> expression, vocalization, etc. | During library time, responds to <br> librarian expressing different <br> emotional states when reading out <br> loud | In community program, responds to <br> different emotional states expressed by <br> other participants through facial <br> expression, etc. |
| N | 21. Answers "What's that?" <br> questions by looking at, <br> touching, etc. pictures or objects | When reading a story, answers a <br> "What's that?" question by looking <br> at picture on a picture board | In Social Studies, answers a <br> "What's that?" question by looking <br> at the correct object | "What's that?" question by looking at a <br> picture on a picture board |

## Cognitive Skill Level Four

|  | Developmental Skill | Elementary School Example | Middle School Example | Examples for Adults |
| :---: | :---: | :---: | :---: | :---: |
| N | 1. Increased interest in the names of thing | In buddy reading, looks at pictures as buddy names them | In Science, looks at pictures of mammals while their named | Looks at named pictures of items needed to buy on a shopping trip |
| N | 2. Associates small parts with whole bigger objects | Looks at, etc. furniture that belongs in a toy house during centre time | In Science, looks at, touches, reaches etc. parts of the body | Looks at, etc. items that are sorted into different recycling categories |
| N | 3. Indicates awareness of 2-4 like objects in a group by looking at, reaching towards, pointing, etc. | In Math, looks at, etc. objects that have the same shape, when asked "Find the ones that are alike" | In Science, looks at, etc. objects that are within a specific category (e.g., aquatic animals) | Sorts laundry according to colour |
| N | 4. Identifies boys, girls, own sex by looking, reaching towards, pointing, touching, etc. | Responds appropriately during Circle Time when teacher says, "All the boys (girls) close your eyes." | During Buddy Reading, answers question about whether the character is a boy or girl | During community activity, accurately follows direction, "Look at one of the girls (guys) to be your partner." |


| N | 5. Identifies several body parts by looking, reaching towards, pointing, touching, etc. | Accurately follows direction to look at, etc. Mr. Potato Head body parts during Centre Time | In Art, locates named body parts in magazine pictures in order to do a collage | Accurately follows direction to look at body parts during personal care |
| :---: | :---: | :---: | :---: | :---: |
| N | 6. Identifies red; blue by looking, reaching towards, pointing, touching, etc. | In Art, looks at, etc. the blue/red marker | In Gym, looks, etc. at the blue/red pinnies when asked to give them to different teams | Looks, etc. at red/blue bin to help sort items in a Recycling Program |
| N | 7. Identifies 10 pictures when named by looking, reaching towards, pointing, touching, etc. | Looks at, etc. pictures of family members, pets, etc. that are part of an "All About Me" Book | Looks at, etc. pictures of objects/activities that are offered in choice making opportunities | Looks at, etc. pictures of objects that are needed to purchase on a shopping excursion |
| N | 8. Identifies action in pictures (e.g., eating, sleeping, bathing, reading) by looking, reaching, touching, etc. | Looks at, etc. pictures of common actions depicted in story books during Buddy Reading Time | During Drama class, looks at pictures of common actions for peers to act them out | Looks, etc. at pictures of common actions from magazines |
| N | 9. Demonstrates understanding of on/in/under/beside through looking, reaching towards, pointing, etc. | Using math manipulatives, puts items 'in/on/under/beside | In gym time, places balls in/on/under/beside | During meal preparation, places ingredients/utensils in/on/under/beside |
| N | 10. Matches objects with pictures of objects by looking, etc. | Looks, points, etc. to objects that match picture in a story book | In cooking, matches food items to pictures of food items | Matches recycling materials to pictures of recycling materials |
| N | 11. Interest in listening to rhymes, songs, jingles | Attends to rhymes, songs, etc. during circle time | Attends to songs, jingles, etc. during music time | Attends to songs, jingles etc. on television |
| N | 12. Listens to a 10-20 minute story | Attends to story read by a big buddy - 10-20 min | Attends to story read by a peer -$10-20 \mathrm{~min}$ | Attends to story read by an adult worker - 10-20 min |
| N | 13. Follows 2-related simple directions within his/her physical capability | "Look at Mr. Smith and give him the message on the Step-by-Step" | "Look at your sandwich and your yogurt" | "Pull your arm out of the sleeve and hold onto the jacket" |
| N | 14. Groups objects by category; Sorts by colour and shape | Groups animals into different categories (farm, wild, etc.) | In Math, sorts different shapes (round, square, etc.) | Sorts items by category in the recycling program |


| N | 15. Has concepts of one, two and all | In Math activities with objects, looks, touches, etc. "one," "two," or "all" on request | Answers by looking, touching, etc., "Do you want one, two, or all of them?" | When grocery shopping, follows directions "Get one," "Get two," or "Get all" of something |
| :---: | :---: | :---: | :---: | :---: |
| N | 16. Responds to verbal jokes involving misnaming (e.g., calling a dog a kitty) | Smiles, laughs, etc. when E.A. calls body parts by their wrong names | Smiles, laughs, etc. during drama when students doing skits misname things | Smiles, laughs, etc. when E.A. calls clothing items by their wrong names |
| N | 17. Recognizes objects from their sounds (e.g., phone ringing) or touch | At music time, looks at musical instrument making a sound | In P.E., looks towards a ball being bounced on the gym floor | Looks at appliance making a sound (e.g., blender) during meal preparation |
| N | 18. Remembers objects/ pictures | Following question, "What did you see?", looks at, touches, etc. picture or object that corresponds to something seen on a class outing | Following question, "What did you see?", looks at, touches picture or object that corresponds to something seen in an illustrated book | Following question, "What did you see?, looks at, touches picture or object that corresponds to something seen when grocery shopping. |
| N | 19. Answers "what doing" questions | Looks at, points, etc. to a picture in a story book when asked a "What doing?" question | Looks at, points, etc. to an action picture relating to a video being viewed, when asked a "What doing?" question | Looks at, points, etc. to an action picture relating to an activity during meal prep, when asked a "What doing?" question. |
| N | 20. Answers "who" questions | Looks at, points, to, etc. class-mates when asked a "who" question | Looks at, points, etc. to picture in an illustrated story when asked a "who" question | Looks at, points to, etc. to a person when asked a "who" question when out in the community |
| N | 21. Answers "where" questions | At circle time, looks, etc. at object when asked a "where" question | When going down the hall, looks at, etc. a specific object or location when asked a "where" question | During recycling, looks, etc. at on object when asked a "where" question |
| N | 22. Can introduce a topic | Uses a Step-by-Step Communicator to give parents news from school | Uses a Step-by-Step <br> Communicator to tell class-mates <br> a joke at recess time | Uses a picture board to initiate a conversation with a volunteer in the disabled riding program |

23. Plays make-believe with dolls, $\quad$ Participates in make-believe animals, and people Knows about 500+ words
activities at centres

Participates in drama activities
involving make believe

Participates in skits in community program

## Cognitive Skill Level Five

|  | Developmental Skill | Elementary School Example | Middle School Example | Examples for Adults |
| :---: | :---: | :---: | :---: | :---: |
| N | 1. Identifies 2-10 objects by function <br> (e.g., Which one do you sleep in?; Which one do you read?; Find the one that can ...) | Answers questions by looking, touching etc. about functions of objects, related to theme (e.g, fall) | Answers questions by looking, touching, etc. about functions of objects in sewing | Answers questions by looking, touching etc, about functions of objects used in meal preparation |
| N | 2. Identifies adjectives: Big/little; small; Long/short; Happy/sad; <br> Hard/soft <br> Rough/smooth; front/back; empty/full | Answers storybook questions with a description (big/little; happy/sad, long/short) | Answers questions about textures felt in sewing (e.g., hard/soft; rough/smooth; front/back) | Answers questions about how concert music sounded (fast/slow; loud/soft, long/short) |
| N | 3. Identifies or expresses verbs: (e.g., open/close) | Tells peers to "stop" or "go" in gym activity | Expresses what to do in cooking (e.g., stir, pour) | Asks someone to open or close the door for them |
| N | 4. Matches sets of objects | Matches manipulatives used in Language Arts activities | Matches 2 different colours of cloth in textiles | Matches different clothing items when doing laundry |
| N | 5. Identifies or expresses colour yellow | Answers question about finding a yellow object in an illustration | Finds yellow paint in Art Class | Finds yellow objects on an outing |
| N | 6. Understands concepts "in front of" and "behind" | When lining up, looks at person "in front of" or "behind" him/her | In P.E., follows directions for placing ball "in front of" or "behind" a peer | When grocery shopping, follows direction for placing foods "in front of" or "behind" other foods |
| N | 7. Understands time concepts: now, soon, later | Responds with anticipation when told that activity is going to happen now | Stops asking to go home, when told that will happen later | Settles down when told that a favourite activity is going to happen soon |


| N | 8. Identifies parts of a whole, such as a leg is part of a body | Identifies different parts of animals | Identifies different props needed for a skit | Identifies food items needed to make a smoothie |
| :---: | :---: | :---: | :---: | :---: |
| N | 9. Identifies shapes: circle, square, triangle | Follows directions to give peers either a circle, square, or triangle | Follows directions in art to choose a circle, square, or triangle template for sponge painting | Follows directions to place clothes in the drawer with a circle, square, or triangle shape |
| N | 10. Follows directions involving 2 objects or 2 characteristics | At calendar time, follows direction, "Show me which one is big and round." | In woodworking, follows direction, "Where's the big, square block?" | During personal care, follows direction, "turn on the tap and put your hands under the water" |
| N | 11. Begins using language for fantasies, jokes, and teasing | Uses AAC device to tell a joke to peers at recess | Plays a trick on his/her assistant | Uses a picture board to tease adult worker |
| N | 12. Makes predictions | When reading a book with a peer, uses picture board to answer, "What will happen next?" | In cooking, answers question, "Do you think it's ready to take out of the oven?" | When watching a sports event, answers question, Who's going to win?" |
| N | 13. Recognizes language absurdities, such as "The dog says meow"; responds to silly sound play (I taut I taw a putty tat) and words used in nonsensical combinations (e.g., I like your peanut butter pants) | Responds by laughing/smiling etc. when listening to funny poems, Dr. Suess stories, etc. | Responds by laughing/smiling etc. when involved in comic skits in drama | Responds by laughing/smiling etc. when watching a comedy show |
| N | 14. Understands complex questions, such as "why" | Answers "why" questions when reading a story book | Answers "why" question about emotional state (e.g., "Why are you crying?" | Answers "Why" question about behaviour (e.g., Why are you wearing a hat?") |
| N | 15. Counts 3 objects | In circle time looks at 3 different objects as they are being counted | In recycling counts 3 juice boxes | When grocery shopping, counts 3 bananas |
| N | 16. Answers "how many" for number concepts $1 \mathcal{E} 2$ | At math time, answers questions about whether there are 1 or 2 items in a picture or 1 or 2 objects present | In cooking, answers question about how many eggs are being used (1 or 2) | In library, answers question, "how many books to you want?" (1 or 2) |

At math time, answers questions, such as, "look at both circles"

In cooking, answers questions,
such as "get both eggs"

Shows caregiver "both" feet

Understands 900-2000+ words

## Cognitive Skill Level Six

|  | Developmental Skill | Elementary School Example | Middle/Secondary School Example | Examples for Adults |
| :---: | :---: | :---: | :---: | :---: |
| N | 1. Understands number concepts up to 3 | In Math, answers question, "How many are there?", for 1-3 items | In Cooking, answers questions about number/quantity from 1-3 | When grocery shopping, helps to select from 1 to 3 items |
| N | 2. Identifies spatial concepts: between, above, below, top, bottom | In Language Arts, answers questions about where items are located | In Art, answers questions about where to paint | At group home, identifies where to place ornaments after dusting them |
| N | 3. Attends to activities for 5-15 minutes | Attends quietly to circle time activity for up to 15 minutes | Attends to assembly activities for 5-15 minutes | Attends to television for 5-15 minutes |
| N | 4. Recognizes and names 1-3 colours | Identifies 3 different colors when doing an art project | Identifies 3 different colors when painting a woodworking project | Identifies 3 different colors when sorting laundry |
| N | 5. Understands the concept of counting; knows a few numbers | During Calendar time, identifies first 10 days of month | In P.E. answers question about how many balls does s/he want | At disabled riding, directs the horse to numbers around the ring |
| N | 6. Understands number concepts: more, less, bigger | In Math, identifies which group of objects is more, less, or bigger | In Cooking, identifies which pile of cookies is more, less, or bigger | Identifies which pile of recycled cans is more, less, or bigger |
| N | 7. Understands adjectives same/different; heavy/light; rough/smooth; short/tall | Shows which objects used in a pet theme are the same or different | In P.E., identifies which balls are heavy or light | At a trip to the beach, shows which rocks are rough or smooth |
| N | 8. Understands direction: right | Follows direction, "look to the right" when going down the hall | Follows direction, "relax your right hand" when being helped to put on a coat | Follows direction, "put the carton in the box on the right" when involved in a recycling program |


| N | 9. Understands words that relate <br> one idea to another: if, why, when | Answers why question relating to a <br> story being read | Follows direction, "When Jo says <br> 'action', you hit your switch" | Follows direction, "If you touch the <br> movie pic, I'll start the DVD" |
| :--- | :--- | :--- | :--- | :--- |
| N | 10. Listens to short, simple stories | Attends quietly when book is being <br> read to class at library time | Attends quietly to peers giving <br> class presentations | Attends quietly when adult worker <br> reads a book out loud |
| N | 11. Matches related pictures | Matches picture to picture in book | Matches picture on visual <br> schedule to picture on door of <br> classroom | Matches pictures of grocery items to <br> picture grocery list |
| N | 12. Begins to grasp that pictures or <br> symbols can represent real objects | Makes a choice for an activity using <br> a picture symbol | Answers a question using a <br> picture symbol | Comments on what s/he sees by <br> pointing to a picture symbol |
| N | 13. Responds to visual jokes (e.g., <br> drawing cat ears and cat tail on a <br> picture of a dog) <br> Understands 2800+ words | Smiles at nonsense pictures | In art class, smiles at class-mates' <br> drawings that contain visual jokes | On outing to art gallery, laughs at <br> paintings that contain visual jokes |

## Cognitive Level Seven

|  | Developmental Skill | Elementary School Example | Middle/Secondary School <br> Example | Examples for Adults |
| :--- | :--- | :--- | :--- | :--- |
| N | 1. Answers questions about time <br> concepts | Answers questions about story <br> being read (e.g, What happened <br> first, next, last, etc.) | In Cooking, answers questions <br> about order of ingredients | Answers questions about order of daily <br> activities |
| N | 2. Answers "where"," when", <br> "why", "how many", "what do <br> you do" "Why do we" questions | Answers questions during circle <br> time | In Drama, answers questions | Answers questions as part of <br> conversation with others |
| N | 3. Completes 3 step directions | Follows a direction during <br> Language Arts, such as, "Look at <br> the board, find the picture of the <br> eagle, then find the matching eagle <br> picture in your book" | In P.E., follow a direction such as, <br> "Go to the equipment cupboard, <br> find the bin with the medium size <br> balls, and bring me a blue <br> medium size ball." | At mealtime, follows a direction such as, <br> "Go into the bathroom, and wash your then come to the table for <br> dinner." |


| N | 4. Talks about personal experiences | At circle time, uses picture board or voice output device to talk about weekend activities | At lunch time, uses picture board or voice output device to talk about personal experiences with peers | Uses picture board or voice output device to have a conversation with friends |
| :---: | :---: | :---: | :---: | :---: |
| N | 5. Listens to experiences \& feelings shared by others | At circle time, attends quietly while others share their feelings and experiences | At break time, listens with interest while others express their feelings and experiences | At coffee time, listens with interest while others express their feelings and experiences |
| N | 6. Counts 10+ objects | In Math, counts 10+ manipulatives | In P.E., counts off $10+$ balls needed for an activity | On an outing, counts 10+ dogs |
| N | 7. Names at least 4 colours | Names at least 4 colours during an Art activity | In sewing, names at least 4 colours when looking at different material | When doing the laundry, names at least 4 colours |
| N | 8. Understand opposites | During language arts, answers questions, such as, "What is the opposite of day?" | In Drama, follows directions such as, "Show me opposite of looking happy" | Uses opposites appropriately during activities (e.g., on/off; back/front; come/go) |
| N | 9. Identifies letters \& initial sounds in words | During language arts, finds the named letter on an alphabet board | When reading with a peer, uses an alphabet board to answer a question, such as, "What sound does the word 'bear' start with?" | Participates in computer games with matching the picture with the letter of the initial sound in the word |
| N | 10. Creates messages, using pictures, symbols, letters and words | Uses picture boards, letter boards, etc. to send messages | Uses voice output device to create a message | Uses a computer to send an email |
| N | 11. Comprehends irony from voice intonation. Sees humour in incongruity of action,appearance, wording (includes slapstick), or impossible event | Smiles, etc. when watching video that contains incongruities of action, appearance, or wording | In Drama, smiles, etc. when watching skit that contains incongruities of action, appearance, or wording | Smiles, etc. when adult worker's voice intonation implies irony |
| N | 12. Knows about things used every day in the home (money, food, appliances) <br> Understands 13,000+ words | Answers questions about everyday things | Understands what appliances are for in cooking | Understands how to use money |

$\square$

## Cognitive Level Eight

|  | Developmental Skill | Elementary School Example | Middle/Secondary School <br> Example | Examples for Adults |
| :--- | :--- | :--- | :--- | :--- |
| N | 1. Remembers information | During circle time, answers <br> questions about what happened on <br> the weekend | Remembers to tell E.A. <br> information from home | Remembers how to cook a simple meal <br> (e.g., pancakes) |
| N |  <br> information with prior knowledge <br> \&/or life experiences | On a field trip, uses pictures, AAC <br> device, etc. to relate previous <br> knowledge with present experience | In Science class, uses pictures, etc. <br> to show how much s/he already <br> knows about topic | When going to a new recreation centre, <br> can independently get ready for <br> swimming, based on prior experience |
| N | 3. Understands left and right <br> 4. Understands most time <br> concepts | Follows directions to turn head to <br> left or right to see something | Follows directions to lift up right <br> or left leg | Follows direction to look to a person on <br> the right or left |
| N | 5. Adds/subtracts one-digit whole <br> numbers (i.e., up to 10) | In Math, adds/subtracts one-digit <br> whole numbers <br> during Calendar | In Cooking, adds one digit whole <br> numbers (e.g., 1 tbs. + 3 tbsp) | Adds one digit whole numbers when <br> figuring out spending money (\$1 + \$8) |
| N | 6. Identifies coin values: penny, <br> nickel, dime, quarter, loonie, toonie | In Math, looks at named coin | Identifies value of coins sent in <br> from home needed to pay for a <br> snack | Identifies coins needed to pay bus fare |
| N | 7. Retells a known story in <br> sequence, identifying characters, <br> settings, \& key events | Uses pictures, etc. to retell favourite <br> story | In Drama, retells a favourite story <br> using picture, etc. | Tells adult worker about a favourite TV <br> show, using pictures, etc. |


| N | 9. Asks questions to make sense of <br> experiences | During a field trip, asks questions <br> about experiences | Asks questions about a new <br> project in woodworking | Asks questions about experiences at a <br> concert |
| :--- | :--- | :--- | :--- | :--- |
| by stories |  |  |  |  |

## Cognitive Level Nine

|  | Developmental Skill | Elementary School Example | Middle/Secondary School <br> Example | Examples for Adults |
| :--- | :--- | :--- | :--- | :--- |
| N | 1. Identifies the main characters in <br> a story | Answers "who" questions about the <br> main characters in a story <br> and end of stories | Identifies the main characters in a <br> play | Identifies the main characters on a tv <br> show |
| N | 3. Reads books independently | Reads a book on own (e.g., reads a <br> book on-line) | Reads book on own (including on- <br> line books) | Reads book on own (including on-line <br> books) |
| N | 4. Performs basic operations of <br> whole numbers | Answers questions about what <br> happened at the beginning, middle, <br> and end of stories <br> Adds, subtracts, multiplies, and <br> divides whole numbers <br> hiddle, and end of a science <br> experiment | Performs basic operations of <br> whole numbers when adjusting a <br> at the beginning, middle, and end of an <br> outing |  |
| Performs basic operations of whole <br> numbers when figuring out spending <br> money |  |  |  |  |

## Cognitive Level 10

|  | Developmental Skill | Elementary School Example | Middle/Secondary School <br> Example | Examples for Adults |
| :--- | :--- | :--- | :--- | :--- |
| N | 1. Listens attentively in group <br> situations | Attends to group instruction, <br> discussions, etc. | Attends to presentations during <br> Assembly | Attends to presentation in community |
| N | 2. Makes predictions | Answers questions, such as, "Where <br> will ...?; What will happen if ...?; <br> Why will...? | Answers questions, such as, <br> "Where will ...?; What will <br> happen if ...?; Why will...? | Answers questions, such as, "Where will <br> $\ldots ? ;$ What will happen if ...?; Why <br> will...? |
| N | 3. Justifies a decision | Answers questions, such as "Why <br> would/wouldn't you ....?" | Answers questions, such as "Why <br> would/wouldn't you....?" | Answers questions, such as "Why <br> would/wouldn't you....?" |
| N | 4. Identifies the causes of an event | Answers questions, such as, "What <br> made it happen?" | Answers questions, such as, <br> "What made it happen?" | Answers questions, such as, "What <br> made it happen?" |


| N | 5. Formulates a solution | Answers a question, such as "What <br> could you do?" | Answers a question, such as <br> "What could you do?" | Answers a question, such as "What <br> could you do?" |
| :--- | :--- | :--- | :--- | :--- |
| N | 6. Identifies a means to a goal | Answers a question, such as "What <br> could we use?" | Answers a question, such as <br> "What could we use?" | Answers a question, such as "What <br> could we use?" |
| N | 7. Reads chapter books | Reads chapter books on-line | Reads chapter books on-line | Reads chapter books on-line |
| N | 8. Comprehends sarcasm, using <br> voice intonation \& contextual cues | Responds appropriately to a <br> sarcastic comment | Responds appropriately to a <br> sarcastic comment | Responds appropriately to a sarcastic <br> comment |
| N | 9. Identifies sequences of events | Identifies sequences of events, such <br> as, "Put these events in order of <br> when they happened" | Identifies sequences of events, <br> such as, "Put these events in order <br> of when they happened" | Identifies sequences of events, such as, <br> "Put these events in order of when they <br> happened" |

## Cognitive Level Eleven

|  | Developmental Skill | Elementary School Example | Middle/Secondary School <br> Example | Examples for Adults |
| :--- | :--- | :--- | :--- | :--- |
| N | 1. Identifies obstacles to an <br> action | Answers questions, such as, "Why <br> can't we ...?" | Answers questions, such as, "Why <br> can't we ...?" | Answers questions, such as, "Why can't <br> we ...?" |
| N | 2. Forms opinions based on <br> evidence | Answers questions, such as, "What <br> do you think about...? <br> language | Answers questions, such as, <br> "What do you think about...? | Answers questions, such as, "What do <br> you think about...? |
| N | 4. Listens \& Draws conclusions <br> in subject learning activities | Answers "how" and "why" <br> questions that demonstrate ability <br> to draw conclusions | Answers "how" and "why" <br> questions that demonstrate ability <br> to draw conclusions | Answers "how" and "why" questions <br> that demonstrate ability to draw <br> conclusions |
| N | 5. Understands fractions | Answers questions that involve <br> metaphors, similes, symbolism, <br> irony, personification, etc. | Answers questions that involve <br> metaphors, similes, symbolism, <br> irony, personification, etc. | Answers questions that involve <br> mersonification, etc. |

## References

American Speech, Language, and Hearing Association (www.asha.org/public/speech/development/)
Developmental Milestones (www.earlyinterventioncanada.com/pdf/Developmental_Milestones.pdf)
Ed Chapman's Speech and Developmental Delays Page (http://edchapman.tripod.com/ParentLinks.html)
Holdnack, J.A. Defining the Role of Intellectual and Cognitive Assessment in Special Education (http://harcourtassessment.ca/hai/pdf/wisciv/definingthe role.pdf)

Kangas, K. \& Lloyd, L. (1988) Early Cognitive Skills as Prerequisite to Augmentative and Alternative Communication Use: What Are We Waiting For?" Augmentative and Alternative Communication, 211-221.

Key Concepts in the Curriculum: Overview of Mathematics K to 12 and English Language Arts K to 12. British Columbia Ministry of Education, Fall 2006.
Preschool Language Scale. Charles Merrill Publishing Company
Reichle, J. \& Yoder, D. (1985) Communication board use in severely handicapped learners. Language, Speech, and Hearing Services in Schools. 16, 1-11.
Romski, M.A., Sevcik, R., and Pate, J.L. (1988) The establishment of symbolic communication in persons with severe mental retardation. Journal of Speech and Hearing Disorders. 53, 7-107.

Seattle Developmental Stages of Reading (http://www.seattleschools.org/area/acastan/stan/read/dev_stg_read.xml)
Stages of Intellectual Development in Children and Teenagers (http://www.childdevelopmentinfo.com/development/piaget/shtml
The Rossetti Infant-Toddler Language Scale. LinguiSystems, 2005
The Whole Child - ABCs of Child Care - Cognitive (http:www.pbs.org/wholechild/abc/cognitive.html)

Western and Northern Canada Protocol Site (http://wncp.ca)

