Cognitive Stepping Stones Sample – First 3 Levels

Stepping Stones for Translating Cognitive Development into Educational Skills

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.

Cognitive Skill Level One

Developmental Skill	Elementary Example	Middle/ Secondary School Example	Examples for Adults
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
2. Briefly looks at people	Briefly looks at teacher saying "hi"	Briefly looks at EA saying "hi"	Briefly looks at a friend saying "hi"
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
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
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
6. Searches for a voice with eyes: __to R; __ to the L; __ 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

7. Turns head to glance from one noise to another from distance of 1-2′ ft	Turns head toward 2 musical instruments played by peers from 1-2′	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
8. Searches for sound with eyes from a distance of 2 ′: __ to the R __ to the L	As above, only just eyes move	As above, only just eyes move	As above, only just eyes move
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
10. Recognizes faces	Smiles at EA when greeted	Smiles at homeroom teacher when greeted	Smiles at adult worker when greeted
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
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
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
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
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

16. Begins to anticipate events through different movement, facial expressions, etc. 17. Smiles when interacting with familiar people	Changes in behaviour when sees jacket (e.g, smiles, increases arm movement) Smiles when teacher interacts with him/her	Changes in behaviour when entering the band room Smiles at peer tutor	Changes in behaviour when entering the recreation centre Smiles at day program worker

Cognitive Skill Level Two

Developmental Skill	Elementary School Example	Middle/Secondary School Example	Examples for Adults
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
2. Attends to music or singing	Attends to singing at circle time	Attends to music in band class	Attends to music at a concert
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
3. 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
4. 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
5. 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
6. 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
7. 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
8. 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
9. Laughs/smiles at an unusual action by a familiar person (e.g., waddling like a penguin, making silly faces/sounds)	Laughs/smiles when peers pretend to be different animals	Laughs/smiles when peers engage in slapstick humor	Laughs/smiles when a friend is acting silly

Understands 3-50 words			

Cognitive Skill Level Three

Developmental Skill	Elementary School Example	Middle/Secondary School Example	Examples for Adults
1. Receptively identifies 10 familiar objects by looking at, reaching, etc.	Look at the book	Find your jacket	Where's the bus?
2. Receptively identifies 1 to 5 body parts by looking at, reaching, etc.	"Where's your hand?"	"Look at your toes"	"Touch your leg"
3. Begins to link object to function	Show me what wear, etc.	Which one do we read?	What do we need to cook with?
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"
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)
6. Identifies 3 different pictures by looking at, reaching, touching, etc.	"Show me computer"	"Look at the book"	"Where's the cookie (picture)?"
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
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
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 Smiles/looks at magazine of

10. Enjoys looking at picture books	Smiles/looks at picture books being read by a peer	Smiles/looks at animal books with photos	interest
11. Imitates or echoes sounds/words	Attempts to imitate "hi"	Attempts to imitate "bye-bye"	Attempts to imitate "hey"
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
13. Distinguishes between '*you*' and '*me*'	Answers question, "Who's coat is this?"	Follows direction, "Give it to *me*"	Gestures towards self when given choice between "*you*" or "*me*"
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
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 to signal end of lunch time
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
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
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
19. Responds to humor involving using objects in 'wrong' ways (e.g., placing a sock on a hand instead of the foot)	Smiles, etc. when E.A. uses an object the 'wrong' way	Smiles, etc. when peers use objects the 'wrong' way when performing a skit	Smiles, etc. when watching a video in which people use objects the 'wrong' way
20. Perceives others' emotions. Uses	During circle time, responds to	During library time, responds to	In community program, responds

different facial expression, body language, vocalizations when observing others expressing happiness, anger, etc. 21. Answers *"What's that?"* questions by looking at, touching, etc. pictures or objects Understands about 300 words	different emotional states displayed by students through facial expression, vocalization, etc. When reading a story, answers a *"What's that?"* question by looking at picture on a picture board	librarian expressing different emotional states when reading out loud In Social Studies, answers a *"What's that?"* question by looking at the correct object	to different emotional states expressed by other participants through facial expression, etc. On a community outing, answers a *"What's that?"* question by looking at a picture on a picture board.