

Equipping Minds to Reach Their Full Potential

2021



Dr. Carol T. Brown Ed.D

Meet the Author

Dr. Carol Brown, Executive Director and Educational Specialist of Equipping Minds, has been working with children and families who have struggled academically and psychologically since 1981. She received her BA in Rehabilitation Counseling from Marshall University, MA in Social Services from Southwestern Baptist Theological Seminary, and Doctor of Education (Ed.D) in Educational Leadership from the Southern Baptist Theological Seminary. She sought additional training in cognitive development therapy, primitive reflex therapy, sound therapy, vision therapy, nutritional therapy, and vestibular therapy and combines these in her multi-disciplinary therapy program. Carol is licensed and certified as an FIE Mediator by the Feuerstein Institute for the Enhancement of Learning Potential.

She has seen personally how the brain can be changed. In 1992 her son, Clayton, would need all of these interventions. Clayton and her students were, and continue to be, her greatest teachers. In 2009, Carol and her husband, Kyle, stepped out of private school administration and teaching to form Equipping Minds, formerly The Academic Success Center of Kentucky, which provides individualized programs for students and adults. Their primary mission is to work with children and adults to help them overcome learning, emotional, and social challenges by equipping their minds to reach the full potential God has for them. Equipping Minds now serves individuals of all ages with a broad range of abilities, from the gifted, to those with Down syndrome, Autism spectrum disorders, traumatic brain injuries, anxiety, memory loss, and developmental delays in school and in the workplace. Equipping Minds Cognitive Development Curriculum is being used across the United States and internationally. It is also being used in research studies with individuals with neurodevelopmental disorders.

Since 1981, Carol has experience as a head of school, principal, teacher, cognitive developmental therapist, social worker, reading and learning specialist, speaker, and consultant. She has served schools in North Carolina, Georgia, Northern Virginia, and Lyon, France. She is a contributing author in the book, *Neuroscience and Christian Formation, and Human Development: Equipping Minds with Cognitive Development (2018)*. Carol trains public, private, and homeschool educators and has conducted professional development workshops for Kentucky Association of School Councils (KASC), Toyota, University of Kentucky College of Medicine, Kentucky Parks and Recreation, Kentucky Department of Vocational Rehabilitation, Society of Professors in Christian Education (SPCE), National Alliance on Mental Illness (NAMI), SHARE an international educational conference, and civic organizations.

Carol and Kyle live in Frankfort, Kentucky and have three adult children.

Please contact Carol at cbrown@equippingminds.com for training workshops and online cognitive therapy for you and/or your children.

Our Son's Story

Many of you have read my credentials or have heard that over the last 37 years my journey has expanded from being a therapist working with children and their families to serving as a teacher and administrator in classical Christian schools, as well as a few years in homeschooling. Since 2009, I've had the privilege of working with students, families, and schools through Equipping Minds to provide hope.

However, what you may not know is that I have sat where you may be sitting now, desperately wanting to hear hope for my son, Clayton, who was struggling. That journey began abruptly when his entrance into this world was traumatic. We watched God breathe for him for the first 13 hours before the trauma team arrived and transported him to the neonatal unit—an hour and a half down the mountain. We were in rehabilitation therapy from the beginning, and the next 10 years would be filled with evaluations, speech therapy, and many tears. He was diagnosed with a language processing disorder in receptive and expressive language. He also had symptoms of dyslexia, dyscalculia, and dysgraphia. His testing revealed weaknesses in all areas with an overall composite of below average intellect. With my education and experience, I began reading every book I could get my hands on and could never seem to find “Clayton” in any of those books. He did not say his first sentence until he was almost 4, but then ... started talking up a storm. However, we couldn't understand half of what he said. When he was 5, the private school of our choice would not accept him and even told me that he had scored lower than any other student.

Then God placed an educator in our path who came to our home for an assessment and said, “There is so much in there that wants to get out. I think our school would be perfect for Clayton.” This was a classical Christian school in Fletcher, NC, Veritas Christian Academy. He had an exceptional kindergarten year and scored a 99% on his phonemic awareness test. However, at the end of the 2nd grade, his reading and spelling were still laborious. That's when I was sitting at the Georgia Dyslexia Conference and heard Clayton's struggles described perfectly. I heard on that day that there was hope. He would spend the summer at a learning center for 4 hours a day, 5 days a week for 8 weeks and then return for more therapy a few years later. Amazingly, at the end of that time, he was reading, he was spelling, he was getting jokes, and able to follow multi-step directions. He was comprehending and telling stories in detail and in sequence. He was happy and confident.

He went on to thrive in the classical Christian schools where I served. He was in the drama productions and excelled at impromptu's and was on the Mock Trial team. However, as he progressed, there were two areas which remained a struggle, processing speed and working memory. As his classes became more intense, he told me that he could not process some of the information as quickly as it was coming. I was in the position to have the best teachers and had trained them in the latest brain-based instructional methods. However, I couldn't ask the teachers to slow down the pace for one student. This led me to further my research and training in the area of neuroscience and cognitive developmental therapy. My husband, who is also an educator, and I went through cognitive development training which focuses on developing the underlying cognitive functions necessary to read, comprehend, remember, and process information. Clayton went through an additional 60 hours of cognitive development therapy which increased his processing speed and his working memory. For the first time, he was reading for pleasure!

In August of 2011, Clayton began his studies at Boyce College in Louisville to pursue a degree in biblical counseling. While he had to work harder than many students to simply pass his classes, we were amazed that he had a 3.65 for the spring semester of 2013 – 4 A's and a B+. He graduated in December of 2014 with a 3.2 overall GPA! He interned for our center during the summers of 2012-2014 and now works for us full-time bringing hope to students who are struggling as he had struggled. On July 28th, 2013 he was the guest preacher at Grace Presbyterian Church in Danville, KY. Yes, language processing disorders in receptive and expressive language, dyslexia, dyscalculia, and dysgraphia can be overcome!

Take My Hand and Run with Me!

When people look at me,
A great student they see,
Spoken well of by the faculty,
Who constantly excels academically,
Who will go into vocational ministry,
This path has been far from easy,
For me, nothing ever came naturally,
Since a child I worked more rigorously,
Than all my fellow classmates,
Always falling behind in my classes,
No matter how much effort,
It never looked well on my report,
Despite my failures, I pressed forward,
Discouragement was constant, yet I endured,
The hope and love my parents showed,
And the Lord's hand of providence,
Brought me from shame and disgrace,
To a place filled with faith and grace,
Fellow student, have hope and rejoice,
For you also can be set free,
From all these struggles and miseries,
For nineteen years it haunted me,
But now I can run with ease,
See and learn from me, oh please!
I wish to see you at peace,
So take my hand during this race,
We will run a steady pace,
Confident with hope and success,
Until we unlock your gifts.

*By Clayton Brown
2014 Graduate of Boyce College
B.S. Biblical Counseling*

Daily Schedule: Please begin with this complementary handout. You can purchase the full curriculum on the Equipping Minds SHOP.

10-15 minutes *Maintaining Brains Every Day* for primitive reflex integration should be done daily for 6 weeks. Some children and adults will need to do them long term.

30-60 minutes *Equipping Minds Cognitive Development Curriculum* should be done 30-60 minutes 5 days a week. For optimum results, wear sound therapy while doing the cognitive exercises. If you do not have sound therapy, listen to classical music with headphones. The following options are available for implementing Equipping Minds.

- Individual online therapy sessions are available with an Equipping Minds therapist. \$30 for 30 minutes/\$45 for 45 minutes/\$60 for 60 minutes No interest payment plans are available. We recommend 60 hours.
- Individual online therapy sessions are available with an Equipping Minds therapist until you are equipped to take over the sessions. You can then transfer to the ROSES program if you desire.
- ROSES: Recorded Online Sessions Equipping Students program is for interventionists, families, and other professionals who can implement the program themselves with support from an Equipping Minds therapist. There are over 500 recorded therapy sessions which follow the STEPS for each exercise. You have access to the videos and additional training videos for one year. Learn more on the Equipping Minds website.
- **Parents can purchase the programs and implement themselves with no support.**
- **ALL OPTIONS SHOULD BE DONE 5 DAYS A WEEK FOR A MINIMUM OF 60 HOURS for 12-24 WEEKS.**

Exercise, sleep, and proper nutrition are strongly recommended for mind and body health.

Meclizine is an anti-motion sickness medication which can be beneficial for visual processing and balance. Meclizine is available over the counter and on Amazon. The generic brand is Rugby Travel Sickness. Consult your doctor or pharmacist before taking and begin with 6 mg of meclizine in the morning and afternoon. You can gradually increase to 25 mg in the morning and afternoon. If you have an allergy to red dye, you will need the white tablet rather than the pink, chewable tablet. If you have negative side effects, discontinue using. This can be a vestibular/inner ear imbalance. Additional information can be found at www.dyslexiaonline.com.

Watch the Equipping Minds YouTube channel for the free 8-week workshop, more examples of the games, and testimonials.

Annual Equipping Minds Conference will be April 19-23,2021.

S = Step	Week 1 & Week 2 Processing (Language, Visual, Auditory) Long Term Memory Primitive Reflexes	Week 3 & 4 Working Memory, Executive Functioning
Reflex Exercises	Do daily Maintaining Brains Everyday \$19.99 https://store.payloadz.com/details/2002496-movies-and-videos-educational-maintaining-brains-everyday.html	Do daily
Stroop Animal	S 1 Read Set 1 S 2 Read Set 2 by ignoring the word S 3 <i>I see myself circle the bear & I see myself box the snake</i> S 4 Add <i>I see myself X fish</i> Read Set 1,2 & backwards	S 5 Add <i>I see myself triangle the cat</i> Read Set 1 & 2 S 7-9 I see myself put a line under the elephant and a line above the turtle
Blink	S 1-6 Say numbers, color, shape Sort by Number saying <i>one on one, Then color, and then shape</i>	S 7 Alternate saying the number, color, then shape S 8 Play the game using language
Spot It	S 1 Use a constant card <i>I see 2 blue dolphins always use sentences</i> S 2 Continue play Recall items on constant	S2 Continue Constant card/recall S 3 Recall the items on the card
SET	S 1 Sort by number & color S 2 Sort by shape	Alternate saying the number, color, then shape
Qwitch	S 1-4 Say letter, say number sort by each	S 5 Alternate the number/letter
Arrows	S 1 Say colors match cubes S 2 Say Up/down and Left/Right touching	S 6 Alternate saying color/ direction S 12 Say the number, color, direction
Number Hunt 1-5	S 1 Read numbers, find the match	S 1 <i>I see myself circle 1, I see myself put a green cube on 1</i> S 2 Add X 2 Blue cube 2 S 3 Circle 1, X 2 Read symbols S 4-9 box 3/ red cube underline 4/ yellow cube, line above 5/ black cube
Make a List	S 1 name all the animals you know in 60 seconds	
Vowel Hunt	S 1 Read Vowels, find the match Say vowel sound with phonics phone	S 1- 5 I see myself circle a/ green cube/ x the e/blue cube, box the i/ red cube/ underline o/ yellow cube/ line above 5/ black cube
Deck of Cards	S 1- 2 Say number, color, suit and sort	S 3 Alternate saying number, color, suit

This is a sample schedule for a few weeks. You can purchase the full curriculum on the Equipping Minds website: SHOP. Continue playing the next steps in the games. You always want to play with your student and model what you're doing. Visit the Equipping Minds Facebook page. There are also special support pages: Down Syndrome and Equipping Minds program, Schools using Equipping Minds Program, Homeschoolers and Equipping Minds, Autism and Equipping Minds, QRI and Equipping Minds

- “This will be challenging, I will help you.” “Let's do this together.” “Let's take turns”
- “Hard is good.” (Smiling) “I like how you're thinking.”
- “Check” “If this is _____, whose turn is it_____.”
“I see you_____, what do you see yourself doing?” “Just a minute, stop and think.”

Brown Six N Back (2016) * Nine N Back added in 2018

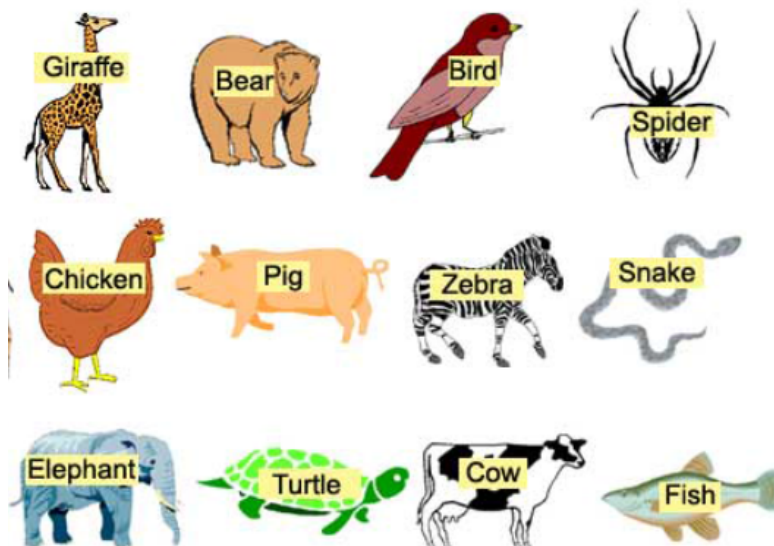
Single N-back task (1958) and Dual N-back task (2003) have been used in research as a method to train working memory for many years. Some studies have reported near transfer effects but failed to demonstrate far transfer effects confirming that generalization remains elusive. Dr. Carol Brown developed an adaptive n-back with six tasks or the “Brown Six N Back” in which learners were asked to associated animals with symbols, vowels with sound, symbols and colors, numbers with symbols and colors, recall images and sequence of US presidents, identify colors, and identify directions of left, right, up, and down. To Brown’s knowledge, there has not been a Six N-back task which utilizes a human mediator requiring the learner to hear auditory instructions, use their hands to write or place a cube while holding a pattern for six categories, and saying what they are doing. There are over 40 possible items the learner is retrieving from their long-term memory while using their working memory and regions of the brain which contain vowels, numbers, pictures, sounds, directions, and colors. If the learners succeeded at a particular level of n, the task was made incrementally more difficult by increasing the size of n to six. Table 1 describes the exercises in the Brown 6 n-back while figures 1-5 show examples of the exercises.

Brown Six N Back Equipping Minds Cognitive Development Curriculum

Cognitive Functions Targeted	Exercise	Description
		Mediator states 1-2 directions ex: “I see you putting a circle around the one...” What do you see yourself doing? Learner replies, “I see myself putting a circle around the one” and performs the action. Use a page protector and dry erase marker.
Visual processing, auditory processing, working memory, visual motor coordination, receptive and expressive language, visual spatial reasoning, abstract thinking, refraining impulsivity,	Animals	Circle around bear, box around snake, X on fish, triangle around cat, line under elephant, line above turtle, smiley face on the penguin, nest under the bird, unicorn on the horse, claws on the tiger, web around the spider, 3 eggs under the chicken, bacon on the pig, tree in front of the giraffe, bucket under the cow, hump on the camel, lily pad under the from, stinger on the bee, tall grass on zebra, waves on crab
Projection of relationships, comparisons, visualization, expressive language,	Presidents “Yo Millard Filmore” book	Describe the pictures by stating the size, shapes, colors, objects, quantities, location, positions, relationships. 1 Washington, 2 Adams, 3 Jefferson, 4 Madison, 5 Monroe, 6 JQ Adams, 7 Jackson, 8 Van Buren , 9 Harrison...
Working memory, visual and auditory processing, long term memory, attention, expressive and receptive language, abstract thinking, visual motor coordination, refraining impulsivity, logical thinking,	Numbers 1-5 Numbers1-9	Use a page protector and dry erase marker. First, place symbols and then cubes with corresponding number. Circle and green cube on 1, x and blue cube on 2, box and red cube on 3, yellow and underline 4, black and line above 5. Remove page protector and read symbols back by alternating saying the number. Then say number, color. Next, number, color, animal. Then, number, color, animal, vowel. Finally, number, color, animal, vowel, president- a 5 n back. Add / and orange on 6, (and brown on 7, () and white on 8, and – (middle line)and purple on 9
Working memory, visual and auditory processing, long term memory, attention, expressive and receptive language, abstract thinking, phonemic	Vowels a-e	First, place symbols and then cubes with corresponding vowel. Circle and green cube on a, x and blue cube on e, box and red cube on i, yellow and underline o, black and line above u. Remove page protector and read symbols back by alternating saying the vowel. Then say vowel and

processing, refraining impulsivity, logical thinking, spontaneous comparison,		sound. Add vowel, sound, color. Next, vowel, sound, color, number. Then, vowel, sound, color, number, animal. Finally, say vowel, sound, color, number, animal, president-a 6 n back. Also do the 6 n back with the cubes covering the vowels.
Spatial concepts of left, right, up, down, Inductive thinking, inductions of rules, seriation, working memory, long term memory, auditory and visual processing, abstract thinking, Systematic approach to new information and object, refraining impulsivity, logical thinking, spontaneous comparison	Colored Arrows	Say the direction of the arrow, then the color, then alternate color, direction. Add the corresponding number and say number, color, direction. Add the corresponding animal and say number, color, animal, direction. Add the corresponding vowel and say the number, color, animal, vowel, and direction. Add the president sequentially and say the number, color, animal, vowel, president, and direction. Use a page protector and dry erase marker and put the symbol on each arrow while saying the number, color, animal, vowel, president, and direction. Remove the page protector and read the symbols only saying the number, color, animal, vowel, president, and direction. * Add an additional mark at the tip of the arrow when marking the direction. Now use the colored cubes and place them down while saying number, color, animal, vowel, vowel sound, president, symbol, direction.

Animals - Example



Circle the Bear

Box the Snake

X the Fish

Underline the Elephant

Line above the Turtle

US Presidents “Yo, Millard Fillmore!”

Basic US Presidents	
1. Washington	green
2. Adams	blue
3. Jefferson	red
4. Madison	yellow
5. Monroe	black
Advanced US Presidents are said sequentially for n –back	
1. George Washington	15. James Buchanan
2. John Adams	16. Abraham Lincoln
3. Thomas Jefferson	17. Andrew Johnson
4. James Madison	18. Ulysses S. Grant
5. James Monroe	19. Rutherford B. Hayes
6. John Quincy Adams	20. James Garfield
7. Andrew Jackson	21. Chester A. Arthur
8. Martin Van Buren	22. Grover Cleveland
9. William Henry Harrison	23. Benjamin Harrison
10. John Tyler	24. Grover Cleveland
11. James K. Polk	25. William McKinley
12. Zachary Taylor	26. Theodore Roosevelt
13. Millard Fillmore	27. William Howard Taft
14. Franklin Pierce	28. Woodrow Wilson

Number Hunt 1-5

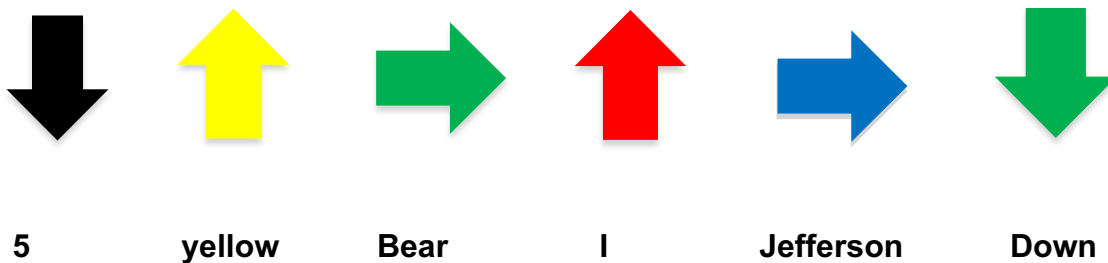
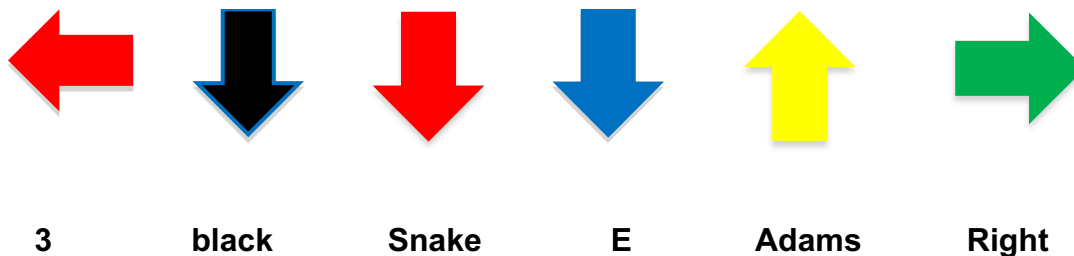
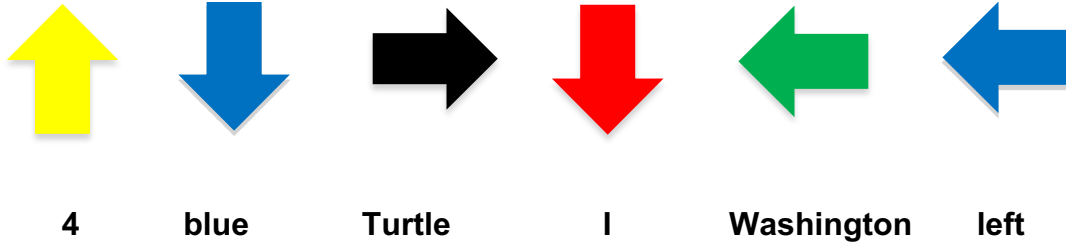
2 1 5 4 3	circle the 1 and place a green cube
5 3 2 4 1	X the 2 and place a blue cube
3 1 4 2 5	box the 3 and place a red cube
5 4 3 1 2	line under the 4 and place a yellow cube
4 2 5 3 1	line above the 5 and place a black cube

Vowel Hunt a, e, i, o, u

e a u o i	circle the a and place a green cube
u i e o a	X the e and place a blue cube
i a o e u	box the i and place a red cube
u o i a e	line under the o and place a yellow cube
o e u i a	line above the u and place a black cube

Figure 5. Brown Six N Back

Say the number, color, animal, vowel, president(sequentially), direction. Use a page protector and dry erase marker say and mark the six items. Place a point at the tip of the arrow for the direction. Remove the page protector and read the symbols: number, color, animal, vowel, president(sequentially), direction. Next, place the colored cubes down turned to match the direction of the arrow while saying the number, color, animal, vowel, president(sequentially), direction.



Brown Four-Nine N Back Chart

Code: symbols, numbers, colors, vowels, sounds, animals, presidents, letters	Number Hunt 1-5	Colored Arrows	Number Hunt 1-9	Vowel Hunt
circle, 1, green, vowel a, bear, Washington, letter A X, 2, blue, vowel e, fish, Adams, letter B box, 3, red, vowel i, snake, Jefferson, letter C underline, 4, yellow, vowel o, elephant, Madison, letter D line above, 5, black, vowel u, turtle, Monroe, letter E slash, 6, orange, horse, JQ Adams, letter F (, 7 brown, camel, Jackson, letter G () 8, white, spider, Van Buren, Letter H - middle, 9, purple, pig, Harrison, letter I	Number, color, animal, symbol, vowel, vowel sound, letter, president (1-5 or continue presidents regardless of number	Number, color, animal, symbol, vowel, direction, president Continue presidents and animals regardless of number but continue the sequence Nine n back Advanced: number, color, animal, president, vowel, symbol, vowel sound, letter, and direction	Number, color, animal, president, letters (A-I), symbol (circle, X, box, line under, line above, slash, (, (), line in middle 1-A 2-B 3- C 4-D 5-E 6-F 7-G 8-H 9-I	Vowel, sound, number, color, animal, president, symbol
Exercise Use dry erase marker for symbols of letters, animals, numbers. Use cubes for colors and direction.				
Stroop Animals	Bear- turtle	Bear- turtle	Bear- camel	Bear-turtle
Number Hunt 1-5	Number symbol & colored cube	Number symbol & colored cube	Number symbol & colored cube	Vowel symbol & sound
Number Hunt 1-9			Numbers, symbol, colored cubes, letters	
Vowel Hunt	Vowels symbols, sounds & colored cubes	Vowels symbols, sounds, & colored cubes		
Tic Tac Toe			1-A green Washington 2-B blue Adams 3-C red, Jefferson 4-D yellow, Madison 5- E black Monroe 6-F orange Quincy Adams 7-G brown, Jackson 8-H white, Van Buren 9- I purple, Harrison	

BLINK



Example of step #10 sorting by the number in the first row, color in the middle row, and shape in the top row.

Cognitive Skill: visual processing, working memory, attention, long-term memory, logic and reasoning

Challenges: The student needs to say what they are seeing and doing. Play each game as quickly as possible to increase processing speed and expressive language. Begin by taking turns on each step. Progress to more difficult levels when the levels become easy.

Modification: Place the cards face up one at a time and ask them to say the number, color, and shape they see on the card. If they cannot identify some of the items, do not use this card initially but add later when they are ready. You can time how quickly they can do the entire deck. * Always model the correct language and play with the student initially.

Classroom Connection: Increases ability to follow multi-step directions and communication.

S 1	Place the cards face up one at a time and ask them to say the number they see on the card. If they cannot identify five items, do not use this card initially but add later when they are ready. You can time how quickly they can do the entire deck.
S 2	Sort the deck by number. Place a card with 1 item, 2 items, 3 items, 4 items, & 5 items. Take a card and say "Two on two." Take turns playing with the student.
S 3	Place the cards face up one at a time and ask them to say the color they see on the card. If they cannot identify some colors, do not use this card initially but add later when they are ready.
S 4	Sort the deck by colors. Place six cards with one of each color face up and say "Red on Red."
S 5	Place the cards face up one at a time and ask them to say the shape they see on the card. Most students will name the triangle and star. However, the "moon" may be a moon, crescent, smile, banana... The "drop" may be a rain or tear drop, a balloon, light bulb.... The "lightening" may be storm, bolt, thunder, zig zag.... The "flower" may be a clover, cloud, cookie, popcorn...

S 6	Next, sort the deck by shapes. Place a card with one of each shape and say "Star on Star."
S 7	Working Memory: Place the cards down one at a time, and alternate by saying the number of the first card, the color of the second card, and the shape of the third card. Continue this pattern with the entire deck.
S 8	Play the game by placing 2 cards in the discard pile. Each player begins with 3 cards. Take turns matching either the same number, color, or shape. You will say, "red on red" or "three on three" or "star on star." You can begin by taking turns and give a prompt to "check your shapes, check your numbers, check your colors."
S 9	Take one card and say all 3 qualities "two red stars"
S 10	Sort by number (row 1), color (row 2), and shape (row 3). The student will place the number in row 1 & say "two on two," place the color in row 2 & say "blue on blue," and place the shape in row 3 & say "moon on moon." Always use language.
S 11	Place the cards down one at a time and alternate by saying the number of the first card, number and color of the second card, number, color, and shape of the third. Continue pattern.
S 12	Sort the deck by number. Place a card with 1 item, 2 items, 3 items, 4 items, & 5 items. Take a card and say "Two on two same number." Take turns playing with the student.
S 13	Sort the deck by colors. Place six cards with one of each color and say "Red on red same color."
S 14	Sort the deck by shapes. Place six cards with one of each shape and say "Star on star same shape."
S 15	Play the game by placing 2 cards in the discard pile. Each player begins with 3 cards. Take turns matching either the same number, color, or shape. You will say, "same number" or "same color" or "same shape." You can begin by taking turns and give a prompt to "check you shapes, check your numbers, check your colors."
S 16	Play the game with no words
S 17	Memorize one card, say "two green stars"
S 18	Memorize two cards, review the first and add a second

S 19	Memorize three cards
S 20	Memorize four cards
S 21	Memorize five cards
S 22	Memorize six cards
S 23	Continue to add cards with a goal of 20 cards. Students have been able to memorize all 60 cards.
S 24	Play SET using 12 Blink cards. To make a SET, the qualities have to be all the same or all different in number, color, and shape. The numbers must be 1,2,3 or 2,3,4 or 3,4,5, or all the same. The color must be all different or all the same. The shapes must be all the same or all different.



Example for step #14

Cognitive Skill: visual processing, working memory, attention, long-term memory,

Challenges: Play each game as quickly as possible. Progress to more difficult levels when the levels become easy. The student needs to say what they are seeing and doing.

Classroom Connection: Reading: You can also have the student say the sound of the letters. Math: Continue to add and subtract the numbers beyond **S 18** to +3, + 4... and then multiplication.

S 1	Say the letter you see on each card.
S 2	Say the number you see on each card.
S 3	Sort the cards by letter "B on B."
S 4	Sort by number and say "1 on 1"
S 5	Alternate saying the number on the first card then letter on the next card.
S 6	Place 6 cards face up, draw one card and find the matching (=) letter or number. Say the match you see, "C on C" or "3 on 3." Also, Place 6 cards face up and see if you can find two cards on the board with a matching letter or number.
S 7	Shuffle the deck and divide the cards equally. Place 2 cards in the center pile. Each player has 5 cards. Begin by playing the game = (equal) and match the same number or letter. Say what you are matching, "8 on 8," or "C on C."
S 8	Place 6 cards face up, draw one card and find the letter or number which would be + (plus 1). Say the pair that you see such as "3 to 4" or "C to D." You could also say "D on C" "4 on 3" 8 does move up to 1 (compare to a clock) and H move up to A Also, Place 6 cards face up and see if you can find two cards which would be +1 such as B to C or 4 to 5.
S 9	Shuffle the deck and divide the cards equally. Place 2 cards in the center pile. Each player has 5 cards. Play = by matching the same letter and + 1 playing one number higher.
S 10	Continue by placing 2 cards in the center and play game by matching + for the letter and + for the number. 8 does move up to 1 (compare to a clock) and H move up to A
S 11	Place 6 cards face up and find letter or number which would be - 1. Say the pair that you see such as "4 to 3" or "D to C." You could also say "C on D" "3 on 4" 1 does move 8 (compare to a clock) and A moves to H.
S 12	Continue by placing 2 cards in the center and play game by matching = for the letter and - for the number
S 13	Continue by placing 2 cards in the center and play game by matching - for the letter and - for the number
S 14	Place the cards down into 3 piles, alternate saying = on the first pile (B2 is B or 2), the second pile+ (A3 is B or 4), the third pile -(E8 is D or 7).
S 15	Place 2 cards down and draw from one pile with =, +, or -

S 16	Alternate saying = of one card and + of the next card
S 17	Alternate saying = of one card, + of the next card, and – of the third card
S 18	Alternate saying = of one card and +2 of the next card

SET



Example for #14

Cognitive Skill: visual processing, working memory, attention, logic and reasoning

Challenges: Progress to more difficult levels when the levels become easy. The student needs to say what they are seeing and doing. To make a SET, the qualities have to be all the same or all different in number, color, shape, and pattern.

Classroom Connection: Phonemic awareness and inferential reasoning

	Solid	Striped	Open	All
Ask what number they see and sort by number. Then sort by color. Say “one on one” & “red or red.” Use language.	S 1			
Ask what shape they see & sort by shape: oval, diamond, squiggle. Say “oval on oval.”	S 2			
Show examples of “sets” and explain why it’s a set.	S 3			
Show & say the 2 solid cards, find 3rd. Student says what they see (one green solid diamond, one red solid oval) and then you will ask what number, color, and shape is needed. (one, purple, solid, squiggle)	S 4	S 12	S 14	S 16
Chose the correct card to complete the SET. Show the student 2 cards and have 3 options below. The student will choose the correct card to complete the SET.	S 5			S 17
Is this a SET? Yes or No? Show 3 cards and ask if it is a SET. The student will answer yes or no.	S 6			S 18
Put 9 cards down. Model how to play. Talk through how you will be looking for a SET. This mediation is crucial. “I am	S 7			

looking at my colors.” What number do you see a lot of? What shape do you see a lot of?				
Put 9 cards down giving prompts. Identify 2 cards and have them think about the next card.	S 8			
Put 9 cards down. Verbalize what they are checking.	S 9	S 13	S 15	S 19
Sort by pattern (solid, striped, open) “solid on solid”				S 10
Alternate saying number, color, pattern, shape	S 11	S 11	S 11	S 11
Play with full deck (what are you checking?) Use language.				S 19
Play with full deck – 5 minutes *Use BLINK cards and play as SET. You can have 1,2,3, or 2,3,4, or 3,4,5 for numbers, different or same colors, and different or same shapes				S 20
Play with full deck – 10 minutes- count number of SETS				S 21
Show a card, says what you see, turn the card face down, Show the second card, say what you see, turn the card face down, Ask what the 3rd card will be to complete the SET.				S 22
Play full deck competitively				

Deck of Cards



Example for Step #35

Cognitive Skill: visual processing, working memory, attention, long-term memory, logic and reasoning

Challenges: Play each game as quickly as possible. Progress to more difficult levels when the levels become easy. The student needs to say what they are seeing and doing.

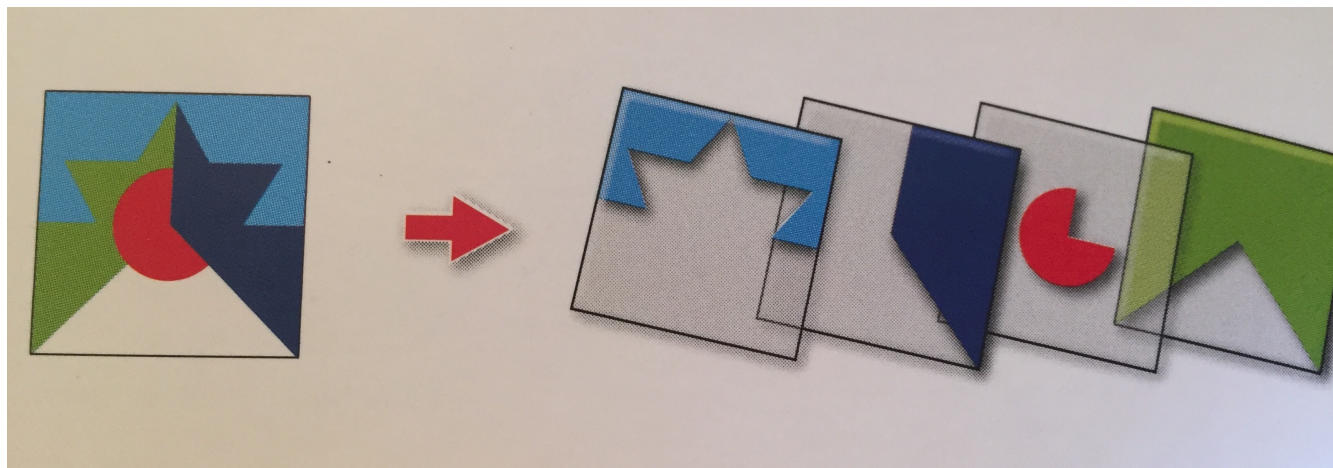
Classroom Connection: Math facts * Jumbo playing cards are excellent for a group.

S 1	Begin by using the number cards only. Place the cards face up one at a time and ask them to say the number they see on the card. You can time how quickly they can do the entire deck.
S 2	Place the cards face up one at a time and ask them to say the color they see on the card. Next, Place the cards face up one at a time and ask them to say the suit they see on the card. Most students will name the heart and diamond. It is important to label the “club” and “spade” by their correct name.
S 3	Place the cards down one at a time, and alternate by saying the number of the first card, the color of the second card, and the suit of the third card. Continue this pattern with the entire deck.
S 4	Say the number on the card if you added + 1.
S 5	Alternate saying the number (=) of the first card and then say plus (+) 1 on the second card. Continue this pattern for the entire deck.
S 6	Alternate saying the number (=) of the first card and then say plus (+) 1 on the second card and color on the third. Continue this pattern for the entire deck.
S 7	Alternate saying the number (=) of the first card and then say plus (+) 1 on the second card, color on the third, and suit on the fourth. Continue this pattern for the entire deck.
S 8	Say the number on the card if you subtracted (-) 1.

S 9	Alternate saying the number plus (+) 1 of the first card and then say minus (-) 1 on the second card. Continue this pattern for the entire deck.
S 10	Alternate saying the number (=) of the first card, then say plus (+) 1 on the second card, and subtract (-) 1 of the third card. Continue this pattern for the entire deck.
S 11	Alternate saying the number (=) of the first card, then say plus (+) 1 on the second card, subtract (-) 1 of the third card and color of the fourth card. Continue this pattern for the entire deck.
S 12	Alternate saying the number (=) of the first card, then say plus (+) 1 on the second card, subtract (-) 1 of the third card, color of the fourth card and suit of the fifth card. Continue this pattern for the entire deck.
S 13	Say the number on the card if you added + 2.
S 14	Say the number on the card if you minus - 2.
S 15	Alternate saying +2, then color, and then suit.
S 16	Alternate saying - 2, then color, and then suit
S 17	Say the number on the card if you added + 3
S 18	Alternate saying +3, then color, and then suit.
S 19	Say the number on the card if you added + 4.
S 20	Alternate saying +4, then color, and then suit.
S 21	Say the number on the card if you added + 5
S 22	Alternate saying +5, then color, and then suit.
S 23	Say the number on the card if you added + 6.
S 24	Alternate saying =, then color, then suit, and then + 6
S 25	Say the number on the card if you added + 7.
S 26	Alternate saying =, then color, then suit, and then + 7
S 27	Say the number on the card if you added + 8.
S 28	Alternate saying =, then color, then suit, and then + 8
S 29	Say the number on the card if you added + 9.

S 30	Alternate saying =, then color, then suit, and then + 9
S 31	Say the number on the card if you added + 10.
S 32	Alternate saying =, then color, then suit, and then + 10
S 33	Say the number on the card if you multiply X 2
S 34	Say the number, color, suit, and president
S 35	Place the cards out one at a time and say only the cards you see after a red card. If there is a 3 red heart and the next card is a 4 red diamond you would say “4” and then you would also say the next card which is “7” as seen in the example for #15.

Color Code



Example for challenge Step #3

Cognitive Skill: logic and visual spatial reasoning

Challenge and Questions to ask: Begin with number 1 and move through in order. It is important to do all of the puzzles in order. Play for 5-10 minutes.

S 1 Lay out all of the puzzle pieces and group them with the matching color.

S 2 Looking at the puzzle, "What colors do you see?" Get the colored tiles which match the puzzle. The student may notice that they see white. Ask the student, "Will we ever need to put a white piece down first?" Why not? Lay the pieces on the table without touching each other.

S 3 Determine the order in which the tiles need to be placed in the display holder before you place them. "Which piece will be on top?" Notice that it will be the one where the entire piece can be seen. Place the tile that will be placed first to the left and the last tile to be put into the display on your right. Arrange the pieces in order on the table. **Do NOT place pieces on top of each other in your hands or in the display** rather, you will visualize this in your mind. Ask, "Do you see it going together in your mind?" Now, place the pieces down and describe what you are doing.

S 4 Take the puzzle apart.

S 5 Once you have completed a level, you can go back and remake the puzzle from memory.

No trial and error: Don't alter the tiles in the display if you don't match the design. Pull the tiles out of the display and start again.

Starter	1-5	6-10	11-15	16-20	21-25
Junior	26-30	31-35	36-40	41-45	46-50
Expert	51-55	56-60	61-65	66-70	71-75
Master	76-80	81-85	86-90	91-95	96-100

Constant Card

Cognitive Skill: visual processing, working memory, attention, long-term memory, logic and reasoning, systematic search, categorization, comparison

Challenges: Progress to more difficult levels when the levels become easy. You will choose **one** card which will be the **constant** card that you will compare every other card. You should model the correct language by going first. You will describe what you see on the card by using number, color, & object (“I see a blue dolphin”). Always begin at 12’oclock and move around the card systematically or clockwise ending with the center object. Play the game with the student and always model correct language and searching. There is ALWAYS one match when you have any two Spot It cards. You will notice that on some versions the objects will be small, medium, and large. For example, there may be a small snake on one card and a large one on the other, these are still a match. Take turns when playing initially before playing competitively. **Modification:** If you student is non-verbal, you will be their voice and model. They may initially point or sign to the match or say one word.

S 1	Select one constant card and describe what you see on the constant card in a full sentence. The mediator should model by going first. "I see two green frogs." There will be 6-8 items on each card depending on the Spot it version. Each player then draws a card, finds the match on the constant card and says, "I see two green snakes." Begin by taking turns. You will play competitively in S 6.
S 2	Continue to play as described in S 1 but now have the student recall the items on the constant card. If they cannot remember an item, give a color prompt, "What did you see that was black." You could also say, "What did you see the swims."
S 3	Recall items on card. Write full sentences on a dry erase board. Have student read.
S 4	Place 9 cards on the table. Starting at the top left card and move left to right systematically. Classify or group the objects into categories. Categorize items by color, animals, food, or usage. Choose one category. See classroom connection for categorizing animals.

S 5	Continue playing and now recall category.
S 6	Play competitively. Show constant card & now show 2 cards and see who can find the match, & use sentences.
S 7	Continue to add another group to categorize.
S 8	Recall category
S 9	Time yourself playing with 2 cards and find matches. This can be done with 1 or 2 people taking turns or competitively.
S 10	Show & describe the constant card. Now, turn the card over and find matches.
S 11	Continue turning the card over and then recall items at the end of the game.
S 12	Say what is on the constant card – DO NOT show the student the card. Find matches and recall, then categorize.
S 13	Place 9 cards down and find at least 3 matches. Search from top left to bottom right.
S 14	Place 9 cards down, place 8 cards face down leaving the center card face up. Turn cards over one at a time trying to find matches of 3. Keep cards face down until the matches are found.
S 15	Place 12 cards down and find 4 matches. Search from top left to bottom right.

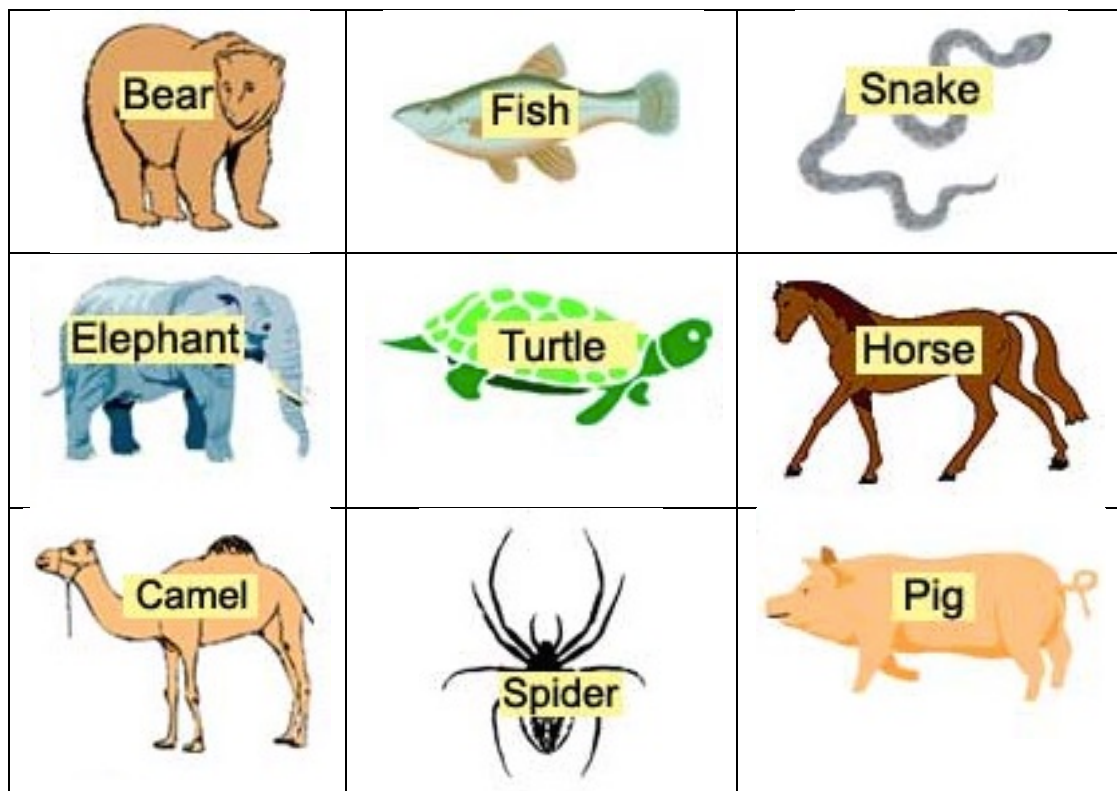
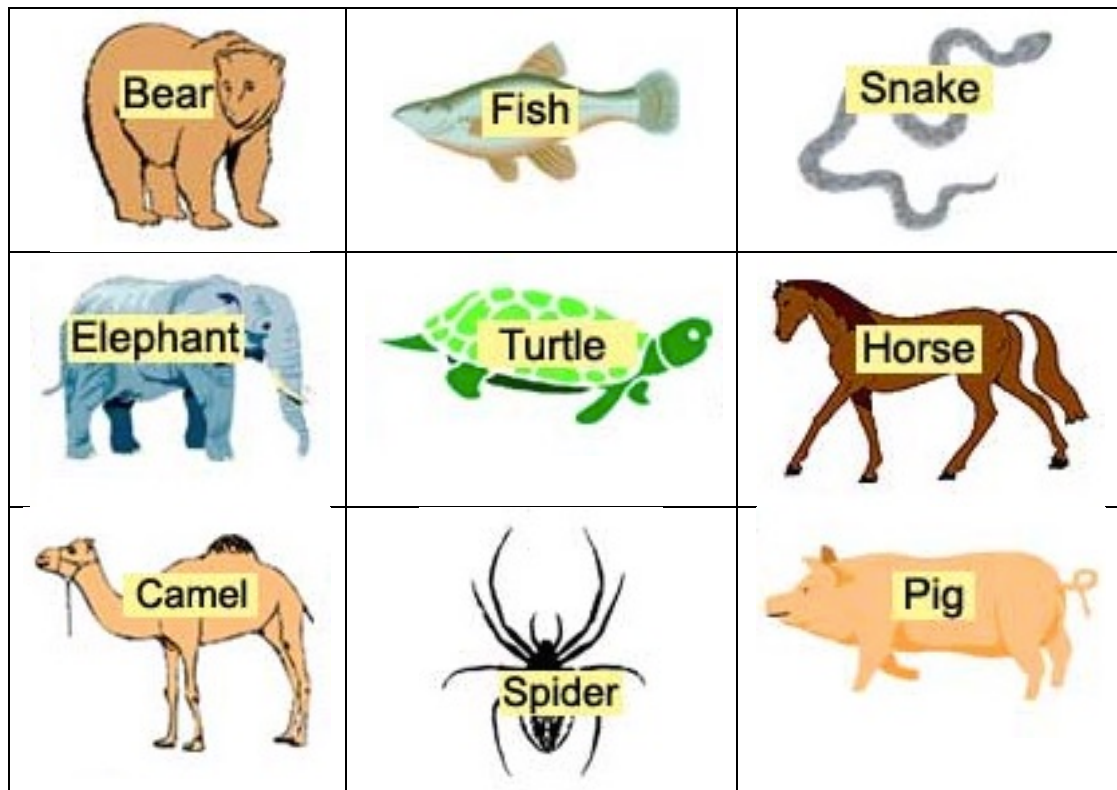
9-Grid Board

Tic Tac Toe – Letter Board

A	B	C
D	E	F
G	H	I

A	B	C
D	E	F
G	H	I

Tic Tac Toe – Animal Board

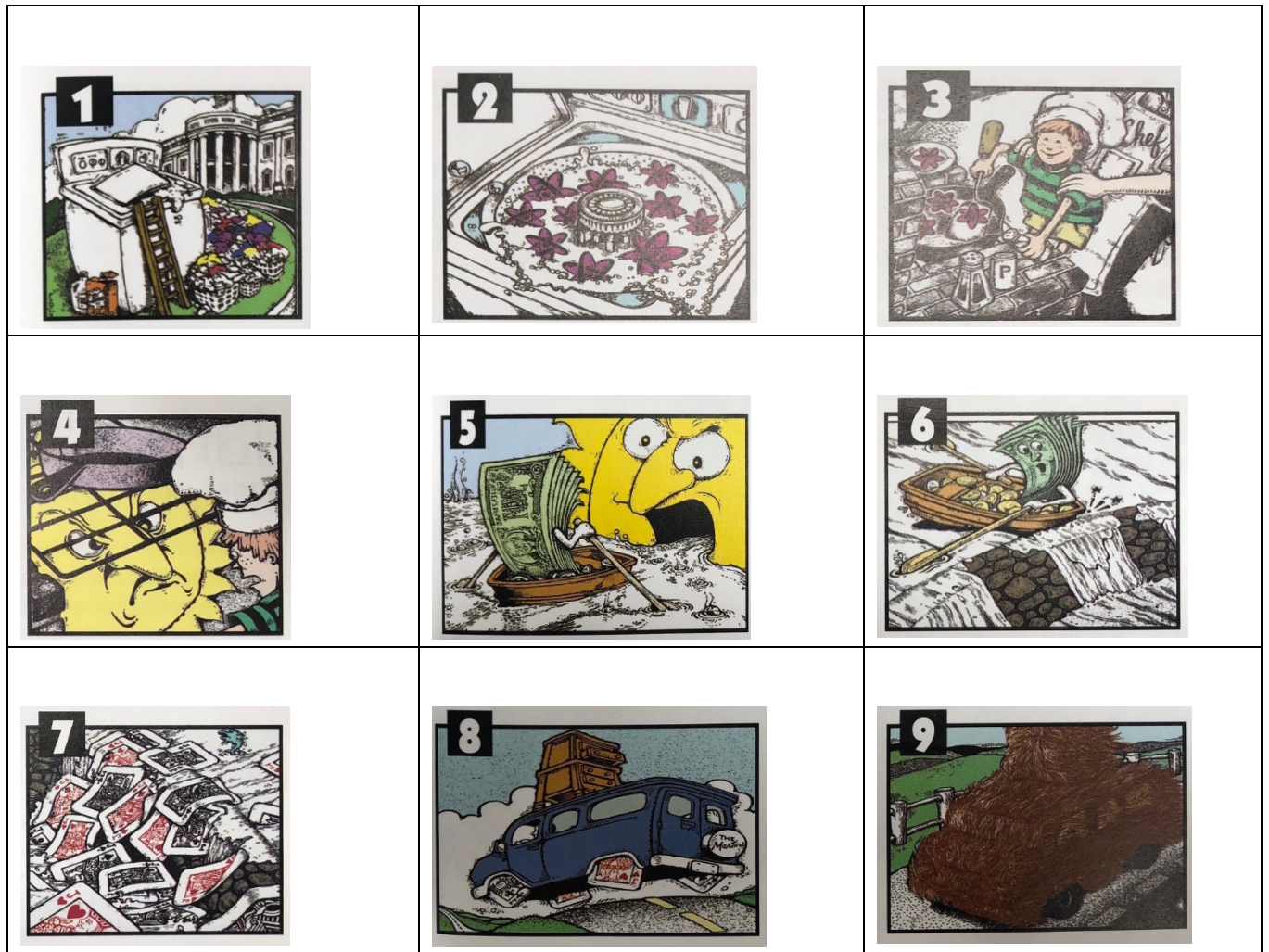


Tic Tac Toe – Number Board

1	2	3
4	5	6
7	8	9

1	2	3
4	5	6
7	8	9

Tic Tac Toe - President

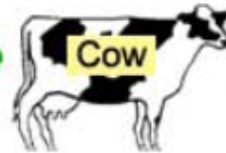
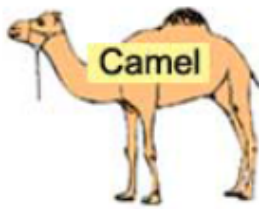
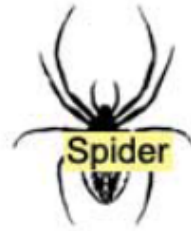


Watch the “Yo, Millard Fillmore” video on youtube:

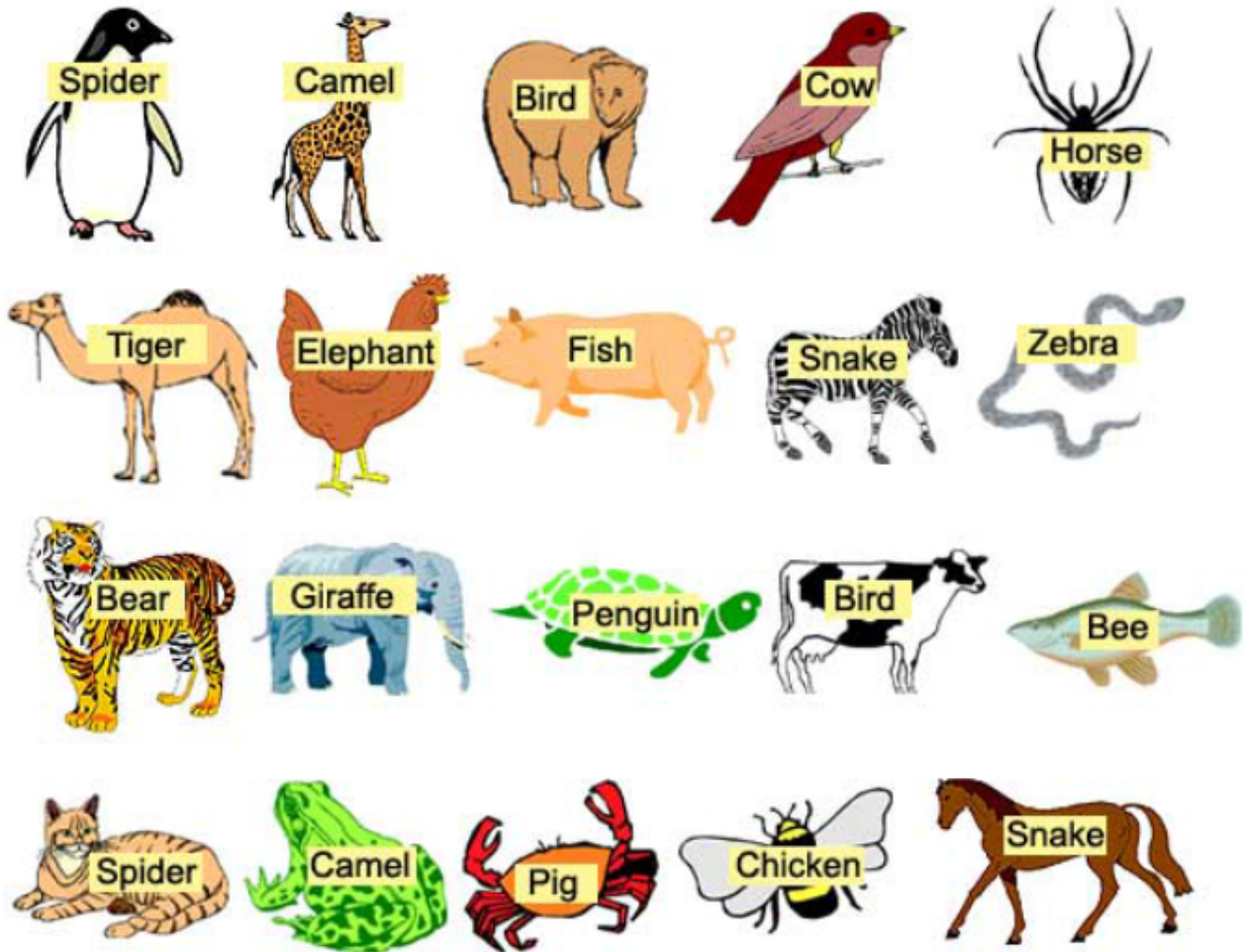
https://www.youtube.com/watch?v=L-p_CINFJwE

Purchase the book on Amazon.

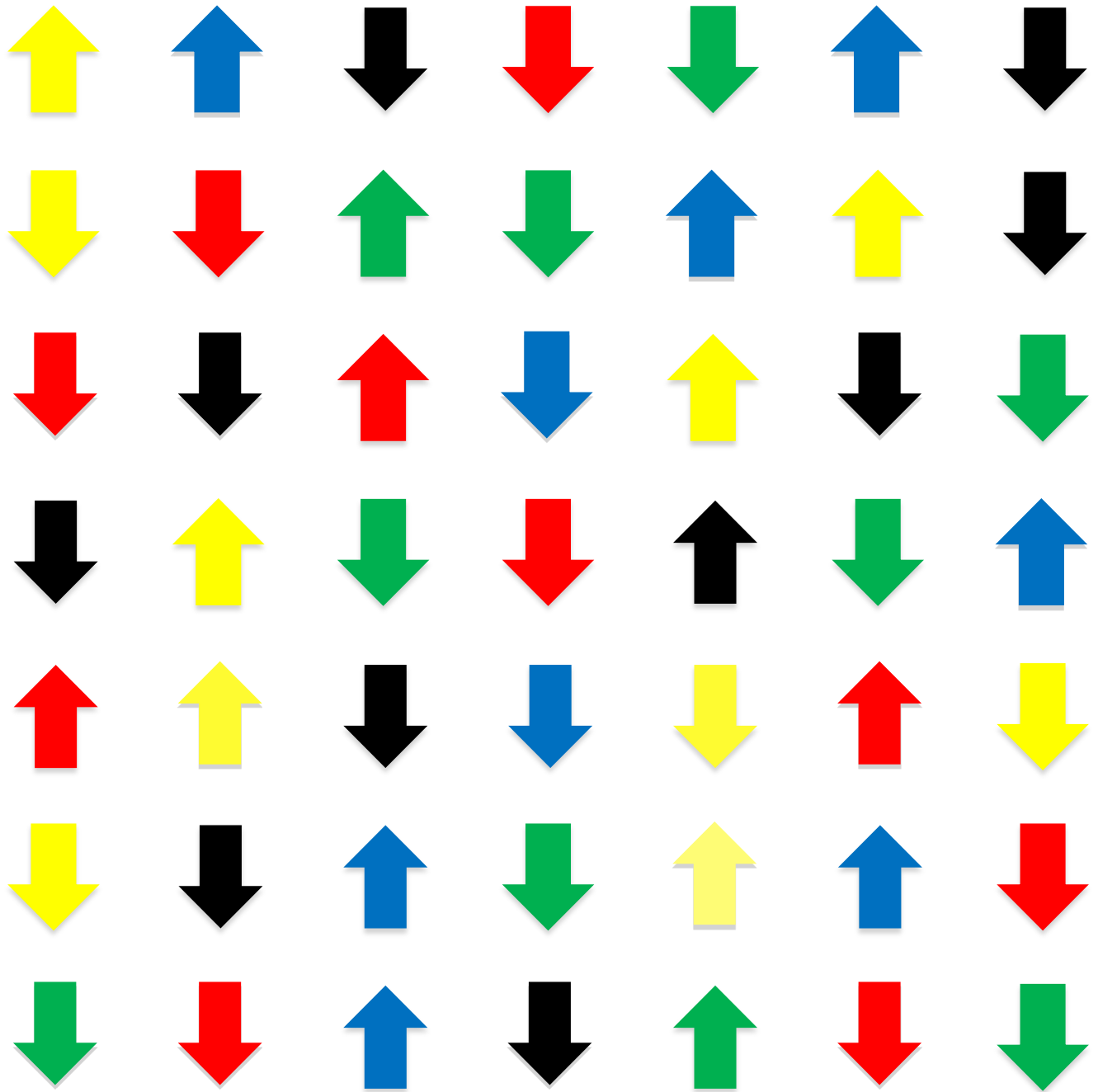
Animal Set 1



Animal Set 2



Colored Arrows: Up & Down and Left & Right



Number Hunt 1-5 with Colors

2	1	5	4	1	3
3	4	1	2	5	4
1	4	3	5	2	5
3	1	5	4	3	2
1	3	4	5	2	1
3	1	4	2	5	3
2	4	3	2	1	5
4	1	5	4	3	2

Vowel Hunt with Colors

a	e	i	o	u	e
i	o	a	u	e	o
e	u	o	a	i	a
o	i	a	e	u	i
u	a	e	i	o	u
a	e	i	o	u	o
o	u	a	i	u	e
i	a	u	e	a	o

Aristotle & Socratic Questions for Mediated Learning Ask these questions when beginning a lesson and addressing a problem. These support the Cognitive Functions of Reuven Feuerstein and are the foundation of Equipping Minds.

Collecting	Processing	Expressing
<p>What or who do you see, hear, feel, taste, touch, and smell?</p> <p>What can you visualize or imagine in your mind?</p> <p>What is the name of what you see or are thinking?</p>	<p>What am I to do?</p> <p>Problem, what problem?</p> <p>What do you need to figure out?</p> <p>What is relevant to the problem?</p> <p>What is needed, and what can be ignored/omitted?</p>	<p>What does the other person believe and why?</p> <p>How does the other person feel?</p> <p>Can you imagine how you would feel in their position?</p> <p>How would the other person want to be viewed and treated?</p>
<p>Where are you starting?</p> <p>Do you have the correct information and materials?</p> <p>What parts do you need, and what order will you need to follow to make the finished product?</p>	<p>What is similar?</p> <p>What characteristics are different?</p> <p>Consider: number, color, shape, size, direction, position, feeling</p>	<p>Have you thought through what you want to say or write?</p> <p>Are your words relevant to the situation?</p> <p>Is your language clear to the audience?</p>
<p>What do you know to be true, or what is constant and does not change?</p>	<p>What different categories do you see?</p>	<p>Do you need to take a break and attempt later or tomorrow?</p>
<p>What is to your right?</p> <p>What is to my right?</p> <p>If you are facing in this direction, what is to your right? Left? Front? Back? East? West? North? South? Northwest? Southeast?</p>	<p>How are these related to each other?</p> <p>Ask: What is your plan? What are the steps you will follow and the reasons?</p> <p>Avoid trial and error! Have a plan.</p>	<p>Perseverance! <i>“Continuous effort—not strength or intelligence—is the key to unlocking our potential.”</i> —Winston Churchill</p> <p><i>“You will never do anything in this world without courage. It is the greatest quality of the mind next to honor.”</i>—Aristotle</p>
<p>When do you see this happening – past, present, future?</p> <p>How long did the event occur?</p> <p>In what order did it happen?</p>	<p>Does this make sense?</p> <p>If this is true, then what else must be true?</p> <p>Are there different possibilities?</p> <p>How can you see if this is true?</p>	<p><i>“If we all did the things we were capable of doing, we would literally astound ourselves.”</i> —Thomas A. Edison</p> <p><i>“Many of life's failures are people who did not realize how close they were to success when they gave up.”</i> —Thomas A. Edison</p>

Stare Cards



Stare Cards

Cognitive: visual processing, visual memory, working memory, long term memory

Challenge: Discuss the card, and describe what you see using **Aristotle's Ten Categories of Being, "Talking Point."** This can take 5-15 minutes. Then hide the card, bring it out in 10 minutes, and retell/describe what you saw in your mind. Recall the next day, then wait a few days. Continue to add Stare pictures each day until this becomes automatic and you can visualize them. Give a title for the pictures. Some students may draw what they saw from memory. You can also take a blank sheet of paper and have them point to the location of items on the Stare card.

Classroom Connection: Reading comprehension, grammar, writing Create a story.

S 1	Look at the Stare Card with the boy sleeping. This is an excellent picture to illustrate what it looks like to close your eyes and picture something in your mind. Begin by asking who they see, then how many, and then what age.
S 2	Now discuss the qualities such as size and colors and then ask the place
S 3	Now ask what is happening or the action
S 4	When is it happening? What time of day and what time of year? Is it the past, present, or future? What season of the year?
S 5	How do they look like they feel?
S 6	What position are they? What is the relationship?
S 7	Describe the clothing and accessories.
S 8	Recall the picture
S 9	Compare the two boys in the pictures.
S 10	Look at the Stare Card with girl at the beach. Begin by asking who they see and then what age.
S 11	Now discuss the qualities such as size and colors and then ask the place
S 12	Now ask what is happening or the action. Ask why she is eating the ice cream first
S 13	When is it happening? What time of day and what time of year? Is it the past, present, or future?
S 14	How do they look like they feel?
S 15	What position are they? What is the relationship?
S 16	Describe the clothing and accessories.
S 17	Recall the picture
S 18	Review all ten categories from memory.
S 19	Look at the Stare Card. Begin by asking who they see and then what age.
S 20	Now discuss the qualities such as size and colors and then ask the place
S 21	Now ask what is happening or the action. Ask why she is eating the ice cream first
S 22	When is it happening? What time of day and what time of year? Is it the past, present, or future?
S 23	How do they look like they feel?
S 24	What position are they? What is the relationship?
S 25	Describe the clothing and accessories.
S 26	Recall the picture
S 27	Compare this picture with another picture

Aristotle's "Ten Categories of Being" and "Talking Point"

Reading comprehension is the ability to "see pictures/images" of what you're reading. "What did you see happening?" Keep each of these areas in mind when reading to increase your understanding and memory. Begin by describing pictures.

What/Who Object, animal, person "What is the main thing or person you see?"	Quantity Number or other measurable characteristic Age of person Weight "How many do you see?" "How old is the person?" "What is the weight?"	Quality Size, color, shape, smell, sounds, taste, texture "How big?" "What color(s) do you see?" Describe the shapes you see.
Action "What do you see them doing? What do you hear?" (talking, singing, yelling...)	Place Where/location "Where do you see him walking, playing, etc.?" "What else do you see besides the boat?" (cloudy sky, waves, dolphins leaping up, etc.)	Time/When Past, present, future Morning, afternoon, evening Length of time- 5 minutes, hour, month, year Summer, winter, spring, fall "When do you see this happening? Early morning, at night, a long time ago? In what year or season?" "What length of time?" (minutes, hours, days, years)
Clothing/ Accessories "What is he wearing or carrying?" Feelings/Reaction Angry, scared, joyful, confused "How does he look like he feels?" (angry, sad, happy, etc.)	Position Standing, sitting, leaning, forward First, second Left, right, front, back North, South, East, West "Is he standing? Leaning forward?" (right, left, front, back, north, south)	Relation Above, below, near, far Friend, parent, stranger Brother, sister, aunt Teacher, husband, wife Grandparent, uncle, cousin, boss "Is this your friend?" "How close or far?" "Is this a family member?"

Sample Sessions

Sample Sessions S = Step	1	2	3	4	5
Reflex Exercises Sound Therapy	Do daily	Do daily	Do daily	Do daily	Do daily
Let's Match or Xtreme Memory	S 1 Begin with 1-2 items on 3 grid board	Continue	S 2 2-3 items on 3 grid board	Continue	Continue
Xtreme Tic Tac Toe	S 1 Play on 1-9 board <i>"I see myself on 5"</i>	Continue	S 2 Animal Board	Continue	S 3 ABC Board
Stroop Animal	S 1 Read Set 1	S 2 Read Set 2	S 3 <i>I see myself circle the bear & I see myself box the snake</i>	S 4 Add <i>I see myself X fish</i> Read Set 1,2 & backwards	S 5 Add <i>I see myself triangle the cat</i> Read Set 1 & 2
Blink	S 1 Say numbers	S 2 Sort by Number saying <i>one on one</i>	S 3 Say color	S 4 Sort by color saying <i>red on red</i>	S 5 Say shape
Spot It	S 1 Use a constant card" <i>I see 2 blue dolphins"</i> <i>always use sentences</i>	S 2 Continue play with same card Recall items on constant	S2 Continue Constant card/recall	S 2 Continue Constant card/recall	S 3 Continue constant card/recall, show or write sentences and have student read
SET	S 1 Sort by number & color	S 2 Sort by shape	S 3 Show a SET & explain	S 4 Show & say 2 cards find 3 rd	S 5 Show 2 cards- chose correct card from 3 options
Qwitch					
Arrows	S 1 Up/ Down: Say colors match cubes	S 2 Up/Down turn cube	S 3 Say color (cube) then direction	S 4 Touch Left/Right with fingers	S 4 Touch Left/Right with fingers
Stare Card					
Number Hunt 1-5	S 1 Read & find match <i>I see myself circle 1, I see myself put a green cube on</i>	S 2 Add X 2 Blue cube 2	S 3 Circle 1, X 2 Read symbols	S 4 Add box 3 Red cube 3	S 5 Write symbols, remove page protector read number, color animal Circle is bear X is-fish- box is snake
Presidents		S 1 Discuss picture of 1 George Washington	S 2 Review & discuss picture of 2 John Adams	S 3 Add 3 Thomas Jefferson	S 4 Add 4 James Madison
Make a List	S 1 name all the animals you know in 60 seconds				
Vowel Hunt					
Deck of Cards					
Color Code	You can add after a few weeks				

Sample Sessions	6	7	8	9	10
Reflex Exercises Sound Therapy	Do daily	Do daily	Do daily	Do daily	Do daily
Xtreme Memory or Let's Match	S 3 2-3 items 4 grid	Continue	Continue	S 4 4 items 4 grid	Continue
Tic Tac Toe	S 4 2 boards 1-9	S 5 2 boards animals	S 6 2 boards ABC	S 7 1-9 use 2 boards cover cubes	S 8 Animals/ABC use 2 boards cover cubes Ready for S 9 president tic tac toe
Stroop Animal	S 6 Review 1-4 forward & Backwards	S 7 Add <i>I see myself put a line under elephant</i>	S 8 forward & backwards Add <i>I see myself put a line above the turtle</i>	S 9 Forward & backwards bear- turtle	S 10 Blank grid bear-turtle
Blink	S 6 Sort by Shape Say <i>star on star</i>	S 7 Number, color, shape	S 8 Play game	S 9 Say two red stars 1 card	S 10 3 rows sort number, color, shape
Spot It	S 4 Categorize items	S 5 Play/recall category	S 5 Play/recall category	S 5 Play/recall category	S 6 Play competitively. Show constant, show 2 cards & match
Set	S 6 Is this a SET? Yes or No	S 7 9 solid cards Model how to play	S 8 9 solid cards identify 2 & find 3 rd	S 9 9 solid cards verbalize their strategy	S 10 Sort by pattern
Qwitch	S 1 Say letter	S 2 Say number	S 3 Sort by Number	S 4 Sort by letter	S 5 Alternate letter/number
Arrows	S 5 Turn cube say left/right	S 6 Alternate saying color/ direction	S 7 Alternate color/ direction say and touch	S 8 Alternate color/direction say with cubes	S 9 Alternate saying cube for color and touch direction
Stare Card	S 1 boy sleeping who/what, quantity	S 2 add place & qualities	S 3 add action	S 4 add when	S 5 add feeling
Number Hunt 1-5	S 6 Add line under four	S 7 Add yellow cube four	S 8 Add line above five Say animal	S 9 Add black cube five Read 1-5 with cubes	S 10 Say number write symbol, say color place cube Add: Read +1
Presidents	S 5 Add 5 Monroe	S 6 6 John Quincy Adams	S 7 Add 7 Jackson	S 8 8 Martin Van Buren	S 9 Add 9 Harrison & president tic tac toe
Make a List	S 1 Name Candy		S 1 Sports		S 1 Name Animals
Vowel Hunt *learn short vowel sounds Use a phonics phone and say into right ear	S 1 <i>I see myself circle a/ green cube on a and learn sound</i>	S 2 Add x the e / blue cube e and learn sound	S 3 Read symbols for a & e and say sounds	S 4 Add <i>I see myself box "i" and red cube and learn sound</i>	S 5 Add <i>I see myself underline "o" and yellow cube</i> S 6 Add <i>I see myself put a line above the u and black cube and learn sounds</i>
Deck of Cards	S 1 Say numbers	S 2 Say suit Colors & sort	S 3 Say number, color, suit	S 3 Say number, color, suit	S 4 Say + 1 for the number

Sample Sessions S = Step					
Reflex Exercises Sound Therapy	Do daily	Do daily	Do daily	Do daily	Do daily
Let's Match or Xtreme Memory					
Xtreme Tic Tac Toe					
Stroop Animal					
Blink					
Spot It					
SET					
Qwitch					
Arrows					
Stare Card					
Number Hunt 1-5					
Number Hunt 1-9					
Presidents					
Make a List					
Vowel Hunt					
Deck of Cards					
Color Code					