

# In-home Cognitive Stimulation Guidebook

*Activities to Stimulate Thinking Skills of People with Brain Disorders*

Developed By

The University of Alabama at Birmingham Traumatic Brain Injury Model System

### About the Guidebook and Developer

This guidebook is an update of *UAB Home Stimulation Program*, a booklet originally developed in 2002 by Tom Novack, PhD, ABPP and Jacqueline Blankenship, MCD, CCC-SLP. This update is made by Tom Novack, PhD, ABPP, Sean Hollis, PhD, Erin Brownlee, OTR/L, Meredith Allan PT, DPT, NCS, Lyndsey M. Holcombe, MS, CCC-SLP, and Phil Klebine, MA.

### Acknowledgements

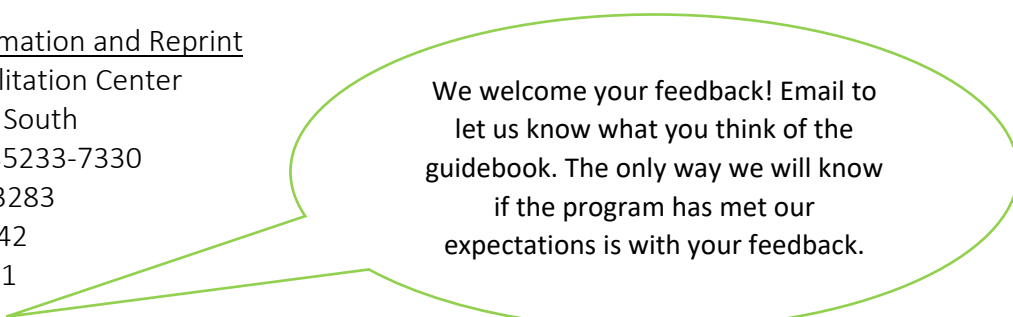
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### Request for Information and Reprint

529 Spain Rehabilitation Center  
1717 6th Avenue South  
Birmingham, AL 35233-7330  
Phone: 205-934-3283  
TDD: 205-934-4642  
Fax: 205-975-4691  
[tbi@uab.edu](mailto:tbi@uab.edu)



We welcome your feedback! Email to let us know what you think of the guidebook. The only way we will know if the program has met our expectations is with your feedback.

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## Instructions

This guidebook offers a variety of stimulating activities for people who are recovering from a brain disorder. Most activities are intended to be done in a 1-on-1 setting with two people.

1. Person with a brain injury – This includes anyone who has experienced a brain disorder that impairs the person's basic cognitive (thinking) skills, which might include paying attention, concentrating, and remembering new information and events.
2. Facilitator – This includes anyone who leads the activities, which might include a family member, a therapist or others.

Many activities can be done by the person with brain injury on a device, like a computer, tablet, smartphone, or game console. Some setup assistance by the facilitator may be needed.

## Activities

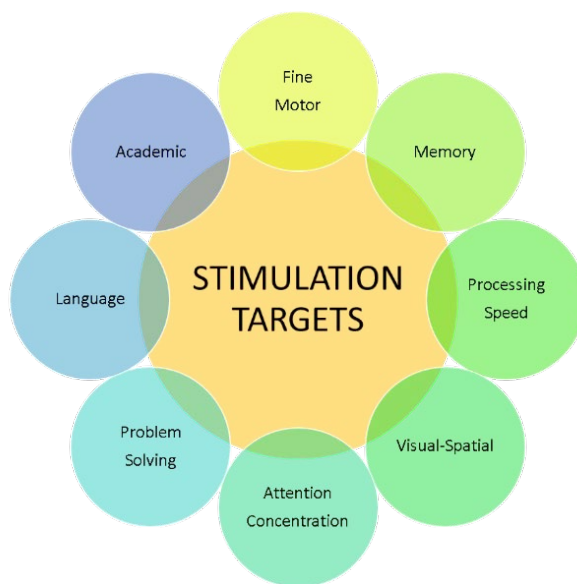
This guidebook provides simple cognitive activities that can be done in a home setting at little to no cost and without professional expertise.

- Activities are ranked by their level of difficulty, with higher level activities harder to do than lower level activities.
- **NOTE:** These activities are not meant to substitute for professional therapy, and doing activities does not guarantee recovery.

## Stimulation Targets

Each activity aims to stimulate one or more of the cognitive skills that may be affected by a brain disorder.

- Academics – activities aiming to stimulate reading or math skills.
- Attention/Concentration – activities aiming to stimulate focus on tasks.
- Fine Motor – activities used to stimulate movement of the muscles in the fingers, hands and forearms.
- Language – activities to stimulate one or more of four basic language skills.
  1. Listening - hearing what is said.
  2. Speaking - communicating ideas with spoken language
  3. Reading - reading what is written.
  4. Writing - writing something to be read.
- Memory – activities that encourage recall of information immediately after presentation and following a delay
- Problem Solving (reasoning) – activities that stimulate thinking through problems to find solutions.
- Speed of Processing – activities focusing on speed of completion for simple tasks after learning to do them.



- Visual-Spatial – activities to stimulate the abilities to visualize and think through the positions of objects, their shapes, and how they relate to other objects.

#### Directions for Using the Guidebook

- Find a list of activities and areas of stimulation in the table of contents.
- Click the activity that best meets your target goals for stimulation.
- Start with lower level activities that are easier to do. Move to higher level activities as the person progresses.
- “Notes:” are to help guide the facilitator for that level of activity.
- “Tasks:” are what the person with a brain disorder is expected to attempt for that level of activity.
- “Examples:” are given if needed.
- Work on different activities and stimulation targets daily for variety.

#### Managing behavior issues when doing activities

- Take breaks when the person becomes tired or frustrated
- Do activities that the person wants to do or finds fun to do.
- Try to redirect attention or move to another target area if the person becomes agitated.

#### Promoting healthy life habits

- Regular exercise, proper nutrition, and sleep are very important.
- Follow a well-structured, daily schedule.
- Avoid the use of alcohol or any drugs that are not prescribed by a medical professional.

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## Stimulation Targets

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Fine Motor (FM)	Speed of Processing (SP)
Language (L)	Visual-Spatial (VS)

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## Auditory Comprehension

### Level 1

#### Notes:

- Arrange any 3 objects on a table.
  - Example: pencil, book, and phone.
  - Add to the number of objects as the person progresses.
- Allow the person to look over the objects to get familiar with them.
- Ask the person to name one object at a time.
- Ask the person to point to the object that you name.
- Ask the person to tell you each object's function.
  - Example: "point to the object you can write with."
- Ask the person to point to 2 or 3 objects that you named in order that you name them.
  - Example: "point to the pencil first and then show me the phone."

#### Task:

- Name the object.
- Point to the object.
- Say the object's function.

### Level 2

#### Notes:

- Ask a number of "yes" or "no" questions.
  - Examples: "Are you married?" "Are you hungry?" "Are you wearing a coat?" etc.
- Make the questions more challenges as the person progresses.
  - Examples: "Do people eat food when they are hungry?" "Do people wear coats to keep cold?" etc.

#### Task:

- Answer the question

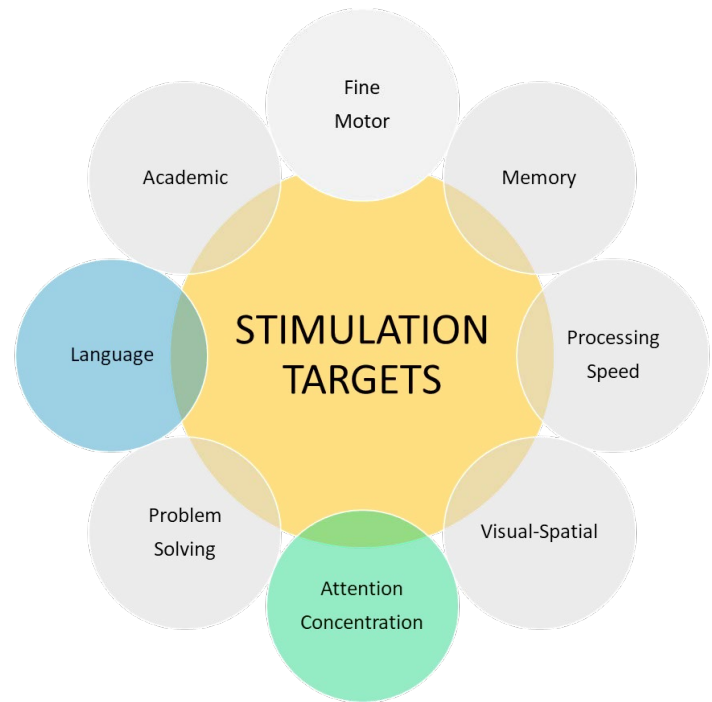
### Level 3

#### Notes:

- Ask the person to follow two-part instructions.
  - Example: "Touch your nose and your chin." "Raise your hand and smile." Etc.

#### Task:

- Follow the instructions.



#### Level 4

##### Notes:

- Arrange any 3 objects on a table.
  - Example: pencil, book, and phone.
- Ask the person to follow two-part instructions using an object.
  - Example: “pick up the pencil and write your name.” “pick up the phone and dial a number.” Etc.

##### Task:

- Follow the instructions.

#### Level 5

##### Notes:

- Ask the person to follow three-part instructions.
  - Example: “Touch your nose, your mouth and your hair in order.” “Smile, shake your finger and wink.” “Raise your left hand, wave and snap your fingers.” etc.

##### Task:

- Follow the instructions.

## Daily Activities

### Notes:

- Start with using simple instructions to describe exactly what to do with each activity.
- Limiting distractions like background noises helps to keep activities easier.
- More complex instructions and added background noises make activities harder.

### Level 1 (no background noise)

#### Tasks:

- Make the bed
- Get dressed
- Take a bath
- Wash the dishes
- Do the laundry
- Prepare a bowl of cereal with milk
- Set the table
- Put away the dishes
- Make juice from frozen concentrate

### Level 2

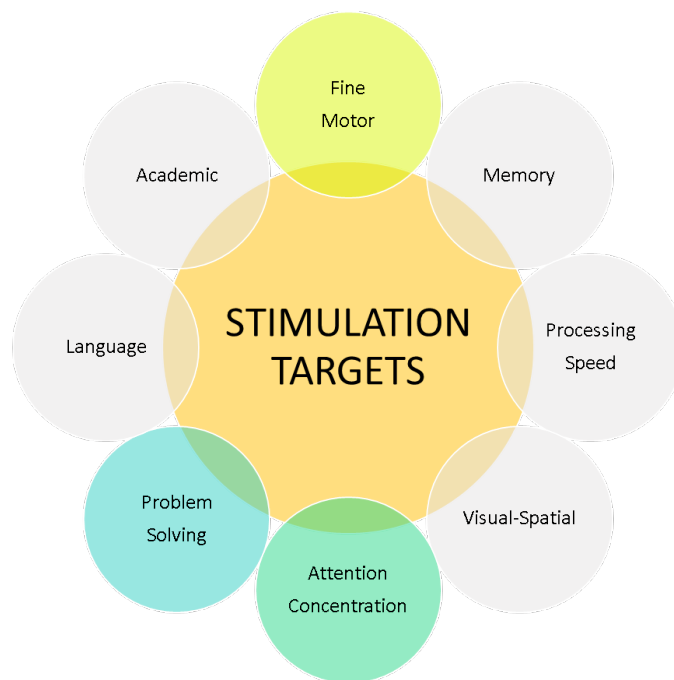
#### Tasks:

- Same as Level 1 but with more difficult instructions and added background noise, like music or TV.

### Level 3

#### Tasks:

- Prepare a simple meal (for example a sandwich, chips and drink.)
- Use a remote control to find TV channels, stream a movie, etc.
- Make a phone call
- Send a text or email
- Take a photo
- Set the time on a clock or microwave oven
- Craft activities
- Wash the car
- Pot a plant
- Put together a model kit (look for "Skill 1" on the box)
  - Examples: plane, car, etc.
- Check fluid levels, tire pressure and other simple car maintenance tasks





#### Level 4

##### Tasks:

- Search for specific TV programs, movies, etc.
- Use a remote control to record a TV show
- Search for an “app” to install
- Set up a computer (or disconnect cables on a computer to reconnect the cables)
- Follow and prepare a recipe in the kitchen
- Manage a transaction at an ATM or bank
- Put together a model kit (look for “Skill 2” or “Skill 3” on the box)
  - Examples: plane, car, etc.

## Working with Money

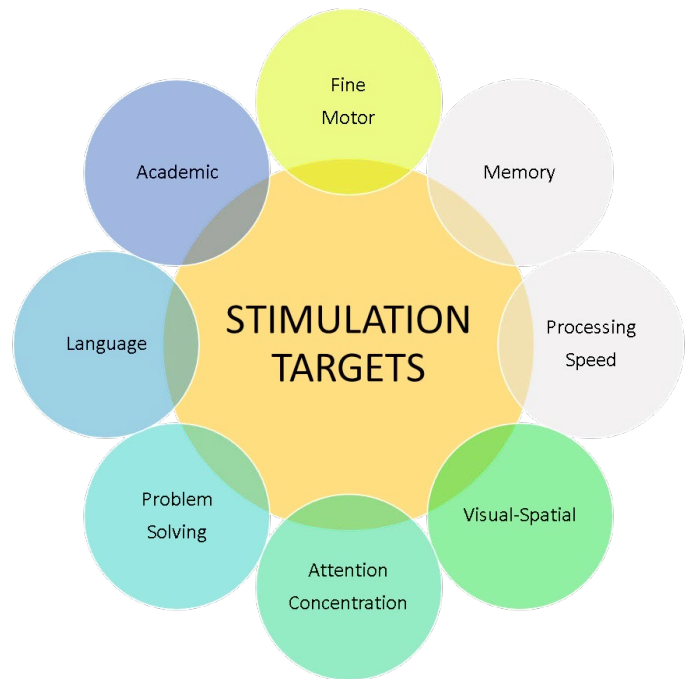
### Level 1

#### Notes:

- Set a bowl on a table.
- Lay 2 dimes, 2 pennies, 2 nickels and 2 quarters beside the bowl.
- Add coins as the person progresses.

#### Tasks:

- Pick up all quarters and put them in bowl. Do the same with nickels, then pennies, and then dimes.
- Stack all quarters. Do the same with nickels, then pennies, and then dimes.
- Ask the person to alternate, upon command, picking up different sized coins, for example: "Pick up a quarter", "pick up a penny", "now, pick up a dime".
- Pick up the coins that are worth the most amount of money and put them into the bowl.
- Pick up the coins that are worth the least amount of money and put them into the bowl.



### Level 2

#### Notes:

- Put a dime, penny, nickel and quarter into a small bag or jacket pocket.
- Add coins as the person progresses.

#### Tasks:

- Using only fingers and the sense of touch, pull a quarter out of the bag or pocket. Do the same with the nickel, then the penny, and then the dime.

### Level 3

#### Notes:

- Lay a dime, penny, nickel and quarter on a table
- Add coins as the person progresses.

#### Tasks:

- Sort out a few coins and figure the total sum of the coins.
  - Example: Sort out a dime, nickel, and penny. "How much money do the coins equal when added together?"

### Level 4

#### Notes:

- Lay some coins and a couple of \$1 bills on a table.
- Add more coins and paper bills of various denominations as the person progresses.

- Role playing each scenario can be helpful if there is difficulty in doing the math mentally

Tasks:

- Sort out money that can be added together to make change after a purchase.
  - Example: “How much change do you get back if you use two \$1 bills to buy a box of chocolate that costs \$1.46?”
  - Example: “How much change do you get back if you use a \$10 bill to buy a sandwich that costs \$6.11?”

#### Level 5

Notes:

- Create a fictional bank account with a starting balance.

Tasks:

- Figure new balances after adding deposits and subtracting debits.
  - Example: “What is your balance after you buy a shirt for \$20”
  - Example: “What is your balance after you deposit \$400?”

#### Level 6

Notes:

- Create a fictional monthly budget.

Tasks:

- Plan out reasonable monthly expenses for food, rent, utilities, clothing, savings, and transportation.

#### Level 7

Notes:

This level puts financial skills learned in the previous levels into real, everyday action.

- Plan a trip to a store. Start with one brief trip of no more than 30 minutes. Increase the number of trips per day and the duration of the trip as the person progresses.
- Add more items to the list as the person progresses.

Tasks:

- Make a shopping list of 4-6 items.
- Write down an estimated price for each item.
- Buy the items on the list with cash.
- Compare the estimated price with the actual price.

## Card Play

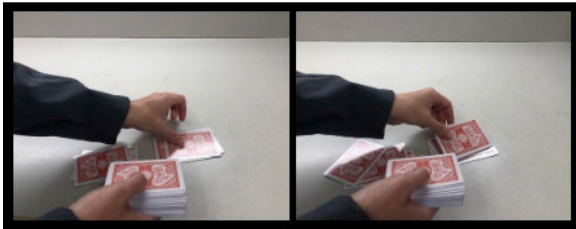
### Notes:

- A deck of cards is needed for all activities.

### Level 1

#### Tasks:

- Begin to deal out the deck of cards as if it is the start of a card game but do not actually play a game. Deal faster at times and slower at times.
- Sort the deck by colors (black and red).



### Level 2

#### Tasks:

- Shuffle the deck.
- Sort the deck by suits (Hearts, Diamonds, Clubs, and Spades).

### Level 3

#### Notes:

- Randomly lay out 10 cards in only 2 of the suits.
  - Example: Hearts and Spades
- Add more cards and suits as the person progresses.

#### Tasks:

- Put the cards in numerical order.
- Put cards in groups of suits.

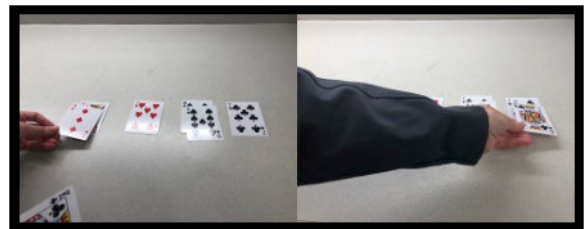
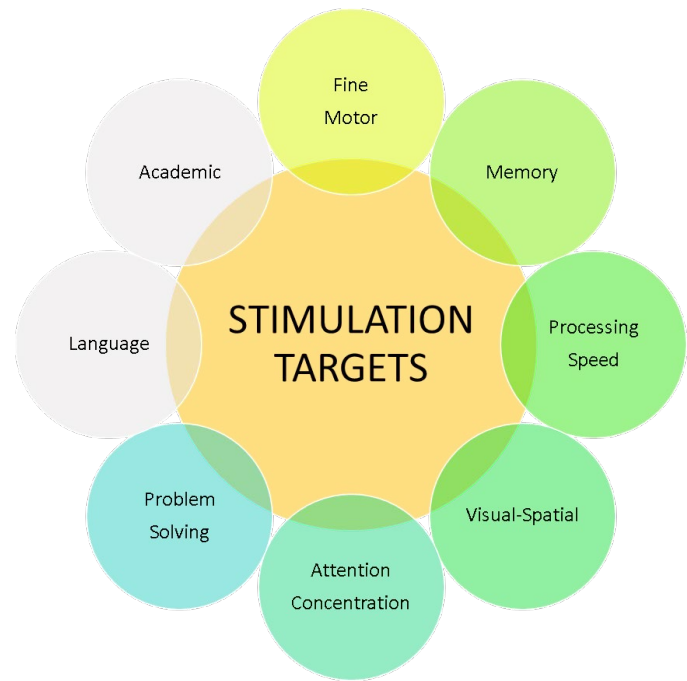
### Level 4

#### Notes:

- Deal a group of cards (10 to 15) face up.
- Deal slowly at first and increase speed as the person progresses.
- Increase the number of cards being dealt as the person progresses.
  - Increase number of cards used to 20 – 35.
  - Use the entire deck of cards

#### Tasks:

- Count the red cards as they are dealt.
- Count the black cards as they are dealt.



### Level 5

Notes:

- Teach or re-teach how to play solitaire.

Task:

- Learn to play solitaire

### Level 6

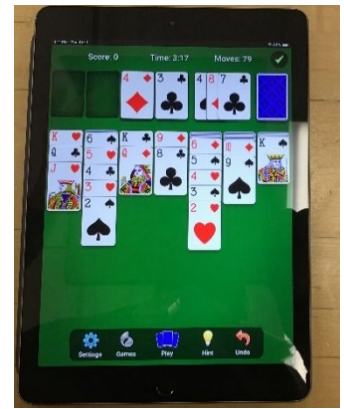
Notes:

- Play a simple card game together
  - Example: War
- Deal the cards.
- Deal slowly at first and increase speed as the person progresses.

### Level 7

Task:

- Play more complex card games with other people.
  - Examples: Go Fish and Uno



## Working with Clay

Purchase inexpensive modeling clay.

- Examples: name brands include Play-Do®, Ez Shape®, Crayola® and others.
- Focus on use of both hands as well as each hand individually, if possible.

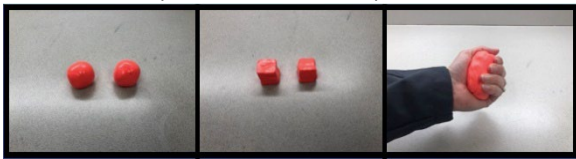
### Level 1

Note:

- Use a brick of clay, which is roughly 8 × 3 × 2 inches (203 × 90 × 55 mm).

Tasks:

- Break off small amounts of clay
- Shape the clay into small balls.
- Shape the clay into small cubes.
- Shape the clay into larger balls that can fit into your hand and squeezed for strengthening.



### Level 2

Note:

- Use a brick of clay, which is roughly 8 × 3 × 2 inches (203 × 90 × 55 mm).

Task:

- Shape the clay into bowls, animals, etc.



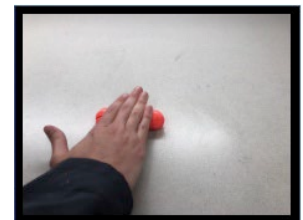
### Level 3

Note:

- Use a brick of clay, which is roughly 8 × 3 × 2 inches (203 × 90 × 55 mm).

Tasks:

- Shape the clay into rolls by rolling it on a flat surface.
- Shape the rolls to create pots of varying sizes and shapes.



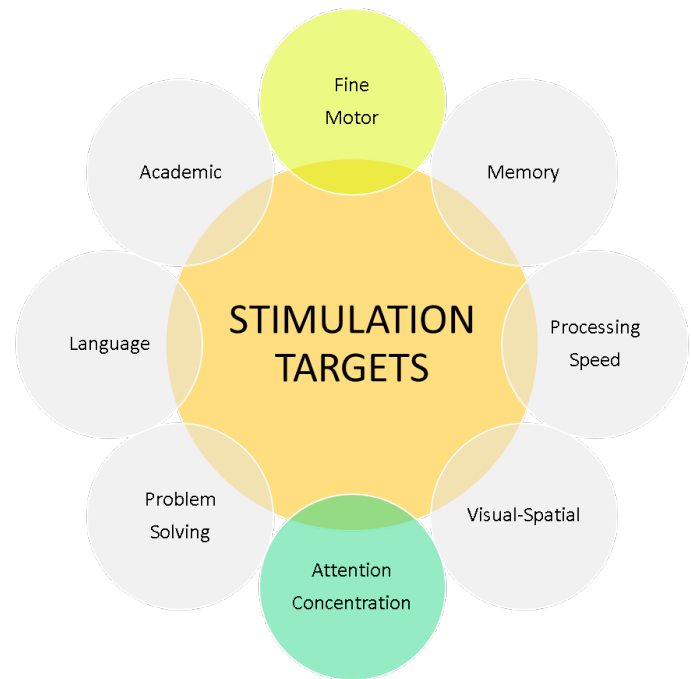
### Level 4

Note:

- Use a pottery wheel with clay and water.

Task:

- Shape the clay into pots and artistic creations.



## Finger Tapping

This activity is to be done using tapping finger movements normally needed to type on a computer keyboard or a touch screen device. The aim is to tap the fingertips on specific area of focus, which are the characters on a keyboard or keypad. Simply holding the finger down on a character is not the goal.

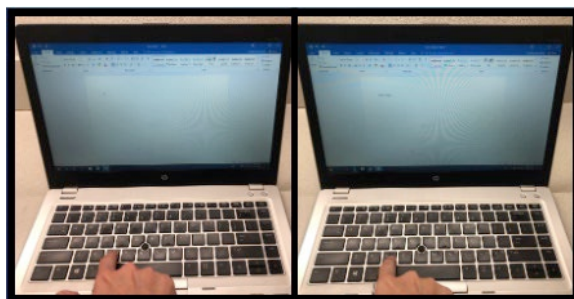
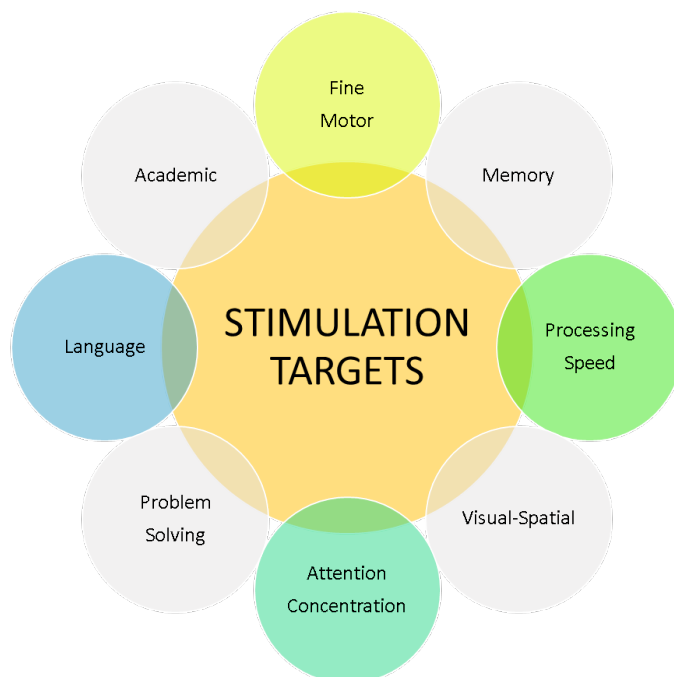
### Level 1

Note:

- Name a keyboard character to be tapped as quickly as possible.
  - Example: tap the letter “c.”

Tasks:

- Tap the named character as fast as possible for 10 seconds with any one finger.
- Count the number of letters that were typed.
- Repeat the tapping and counting tasks 5 times, with a 10 second rest period between each time.
- Repeat the tasks using a different finger until the task is done using all fingers on both hands.



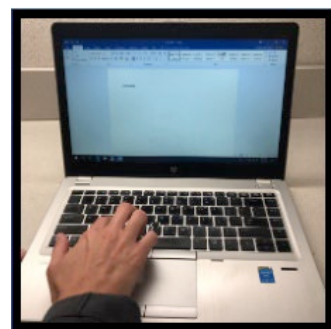
### Level 2

Note:

- Name 2 keyboard characters to be tapped as quickly as possible.
  - Example: name the letter “d” and “f.”

Tasks:

- Tap the named characters as fast as possible for 10 seconds. Use one finger per character, only using one hand at a time.
  - Example: d f d f d f d f d f d f
- Repeat the tapping task 5 times, with a 10 second rest period between each time.
- Repeat the tasks using different fingers until the task is done using all fingers on both hands.



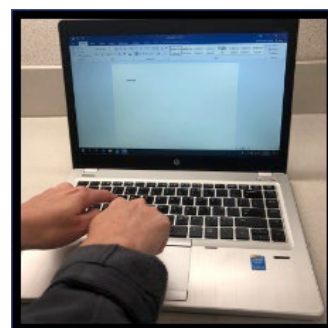
### Level 3

Note:

- Name 2 keyboard characters to be tapped as quickly as possible.
  - Example: name the letter “d” and “f.”

Tasks:

- Tap the named characters as fast as possible for 10 seconds. Use one finger from each hand to tap a named character.
  - Example: d f d f d f d f d f



- Repeat the tapping task 5 times, with a 10 second rest period between each time.
- Repeat the tasks using different fingers until the task is done using all fingers on both hands.

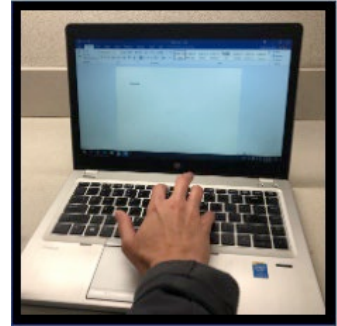
#### Level 4

Note:

- Name 4 side-by-side keyboard characters.
  - Example: name the letters “l,” “k,” “j,” and “h.”

Tasks:

- Tap the named characters in order. Use fingers on one hand. Use one finger per character.
  - Example: lkjhlkjhlkjhlkj
- Repeat the tapping task 5 times, with a 10 second rest period between each time.
- Repeat the tasks using different fingers on the other hand and tapping different characters in order.
  - Example: asdfasdfsdfasdfsdf



#### Level 5

Tasks:

- Type out short words and phrases using fingers on both hands.
- Try typing games and skills using apps and online training lessons.

#### Level 6

Task:

- Type out short emails and text messages.

#### Level 7

Task:

- Type out longer notes or letters to family and friends.
  - Example: type a “Thank you” letter.



## Bean Bag Toss

Purchase or use homemade beanbags. Here are a couple of suggestions on how to make bean bags.

1. Divide a 1-pound bag of dried beans between 2 reusable, re-sealable zipper bags.
2. Divide a 1-pound bag of dried beans between 2 socks. Use a twist tie or zip tie to seal.
3. Add beans for more weight as needed
4. Foam-based balls can also be used.

### Level 1

Notes:

- Stand a distance of about 5' apart from each other.
- You will use one bag and gently toss it back and forth.
- Aim to develop a back-and-forth rhythm.
- Vary the speed of tosses and gradually extend the distance to up to 8' as the person progresses.

Tasks:

- Catch the bag 10 times with both hands and toss it back.
- Catch the bag 10 times with one hand and toss it back.
- Catch the bag 10 times with the other hand and toss it back.

### Level 2

Notes:

- Stand a distance of about 5' apart from each other.
- You will use one bag and gently toss it back and forth.
- Aim to develop a back-and-forth rhythm.
- Vary the speed of tosses and gradually extend the distance to up to 8' as the person progresses.

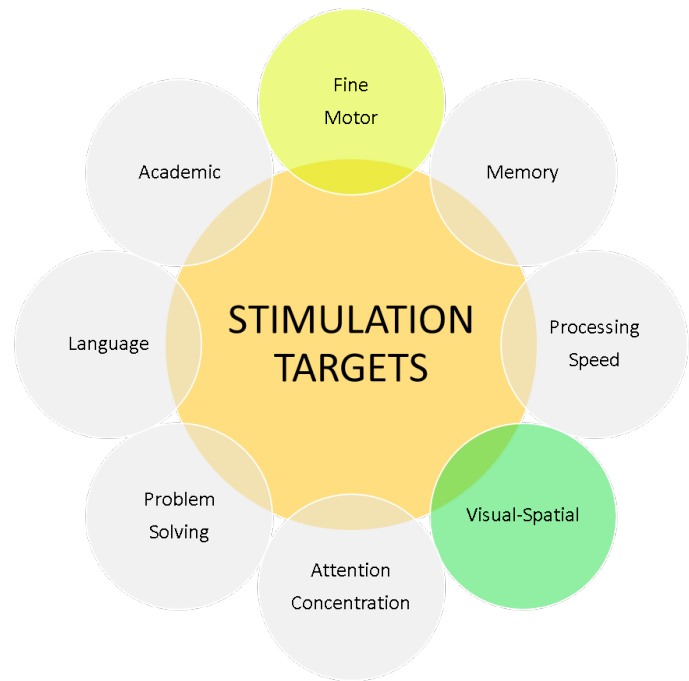
Tasks:

- Switch back and forth between each hand when catching the bag and tossing it back.

### Level 3

Notes:

- This level is likely to be confusing or difficult to do at first. It is best to stop the activity after 5 unsuccessful tries
- Stand a distance of about 3' apart from each other.
- You will use two bags to gently toss back and forth, each starting with a bag.
- You will toss and catch the bags at the same time.
- Aim to develop a back-and-forth rhythm, much like juggling with two bags.
- Vary the speed of tosses and gradually extend the distance to 8' as the person progresses.



Tasks:

- Catch the bag 10 times with both hands and toss it back.
- Catch the bag 10 times with one hand and toss it back.
- Catch the bag 10 times with the other hand and toss it back.
- Switch back and forth between each hand when catching the bag and tossing it back.

Level 4

Notes:

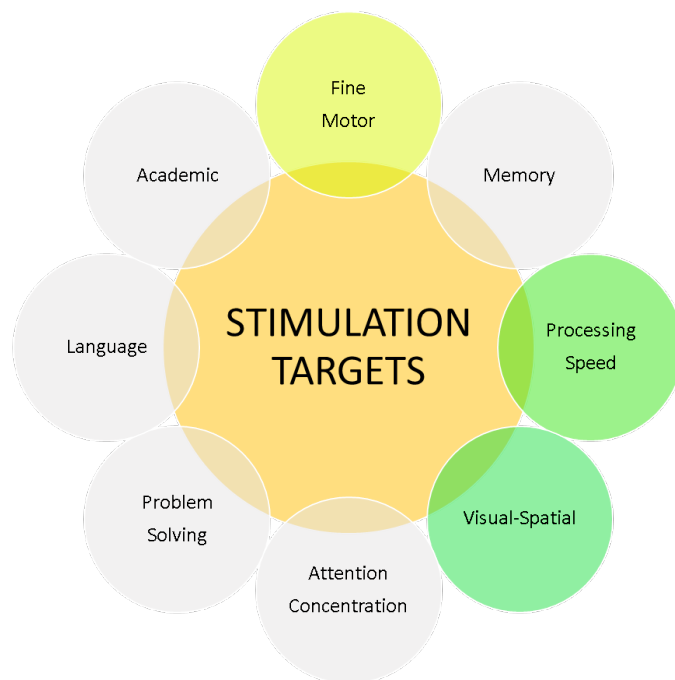
- Set up a box or some type of target
- The aim is to toss the bag in the box or hit the target.
- Place the box or target at a distance of about 3' away from the person.
- Gradually extend the distance to 5' as the person progresses.
- You can play as a game, scoring points for hits.

Task:

- Hit the target with the bag.

## Nuts and Bolts

- Use 50 matching nuts and bolts. Bolts can be any length, but 2" may be easiest to handle.
  - If nuts are not available, use any two small items like buttons, paperclips, coins, toothpicks, etc.
- Use three empty bowls, shoeboxes or plastic food keepers for storage.
- Switch hands for tasks if one hand tires.
- Take breaks as needed.



### Level 1

#### Notes:

- Place the nuts in one bowl.
- Place an empty bowl about 12" away.
- Start with allowing 15 seconds to move each nut to the empty bowl, and decrease timeframe as the person progresses.

#### Tasks:

- Move the nuts one at a time into the empty bowl with one hand
- Move the nuts one at a time into the empty bowl with the other hand



### Level 2

#### Notes:

- Place all the nuts in one bowl.
- Place an empty bowl about 12" away on each side of the bowl of nuts.
- Move each nut into the bowl slowly increasing speed if possible.

#### Tasks:

- With one hand, move the nuts one at a time into the empty bowls, alternating from bowl to bowl.
- With the other hand, move the nuts one at a time into the empty bowls, alternating from bowl to bowl.

### Level 3

#### Notes:

- Place all the nuts in one bowl.
- Place the two empty bowls about 12" away on each side of the bowl of nuts.
- Move each nut into the bowl slowly increasing speed if possible.

#### Tasks:

- Use both the left and right hand at the same time to move the nuts one at a time into the empty bowls.

- With left hand, move the nuts one at a time into the empty bowl on the left.
- With the right hand, move the nuts one at a time into the empty bowl on right.

#### Level 4

##### Notes:

- Place all the nuts in one bowl and bolts in one bowl.
- Place the empty bowl between the bowls of nuts and bolts.
- Join the nuts and bolts and place them into the bowl slowly increasing speed if possible.

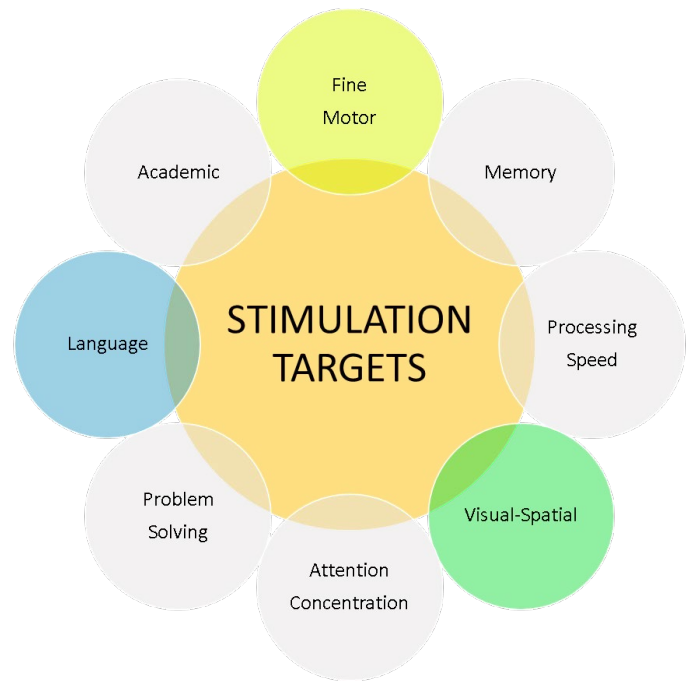
##### Tasks:

- Pick up a nut with one hand.
- Pick up a bolt with one hand.
- Twist the nut a few turns onto the bolt.
- Place the joined nut and bolt into the empty bowl.

## Spatial/Writing Skills

Use paper and a pencil or marker.

- Using a larger pencil or marker can be helpful if there is weak muscle movement in arms, hands, or fingers
- Using a brightly colored pencil or marker can be helpful if there are visual limitations.



### Level 1

Notes:

- Draw a shape, number or letter.
  - Draw different shapes, numbers or letters to add variety.

Task:

- Draw or copy a shape, number or letter.

### Level 2

Notes:

- Draw a straight line or an enclosed figure, like a circle, square, triangle
  - Draw different size shapes with longer or shorter length lines when repeating the task.
  - Example: small triangle, long rectangle, large square
  - repeat, varying the shapes and sizes.
- Provide feedback and allow additional attempts to correct errors.

Tasks:

- Draw or copy as described above
- Draw a dot on each end of the line, the center of the line, or the center of the figure.

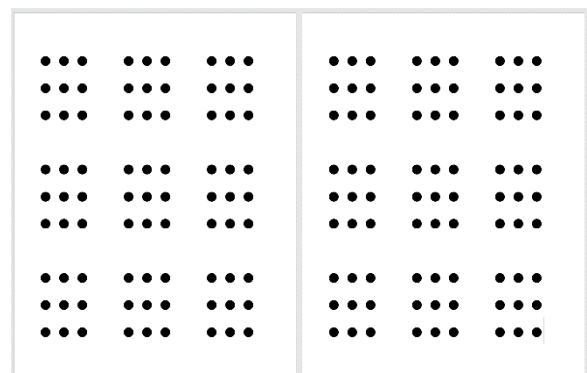
### Level 3

- Draw an entire page of different sized lines scattered all over the paper.
  - Draw lines in any and all directions and at different lengths.
  - Ask the person to mark the middle of each line.

### Level 4

Note:

- Start by drawing 9-dot square patterns with 3 dots per line on two sheets of paper as shown.
  - Connect dots to create shapes or patterns
  - Increase the difficulty by connecting more dots on larger grid patterns, like 4x4, 5x5, and up to 6x6 square patterns as the person progresses.
- Do the 4 tasks in sequence from 1 to 4.



- You will first draw a pattern on one page and ask that the pattern be copied on the other page.
- Repeat each task using a different square until it is done successfully on consecutive times.
- Expand the number of dots in a grid as warranted by success.

Tasks:

1. Draw a line connecting 2 dots in one of the squares.
2. Draw a straight line connecting 3 dots in one of the squares.
3. Draw a line connecting 4 dots in one square without letting the lines cross.
4. Draw shapes by connecting dots (square, triangle, rectangle, etc.)
5. Make random patterns without lines crossing.
6. Make random patterns with lines crossing

### Level 5

Notes:

- Draw 2 parallel lines on a page.
  - The lines should be between 1" to 2" apart to serve as a guide.

Task:

- Copy or write a 3 letter word between the 2 parallel lines.
- Copy or write a 4 letter word between the 2 parallel lines.

W I N D

### Level 6

Notes:

- Draw 2 parallel lines on a page.
  - The lines should be between 1" to 2" apart to serve as a guide.

Task:

- Copy or write different letters of the alphabet between the 2 parallel lines.

A B C D E F

### Level 7

Task:

- Using lined paper, write brief "thank you" notes to friends and relatives.

## Search and Find

- Pour a bag of uncooked rice into a large bowl.
- Keep the bowl of rice out of view when adding objects to find.

### Level 1

Notes:

- Put 2 small objects that can fit into the palm of your hand into the bowl of rice.
  - Examples: small ball, marble, coins, nuts, screws
- Mix the objects into the rice well so that they are somewhat hidden.

Task:

- Look to find the objects hidden within the rice using sight, hands and sense of touch.
- Name the objects.



### Level 2

Notes:

- Put 2 small objects that can fit into the palm of your hand into the bowl of rice.
- Mix the objects into the rice well so that they are somewhat hidden.

Task:

- Without looking, find the objects hidden within the rice using only your hands and sense of touch.
- Name the objects.

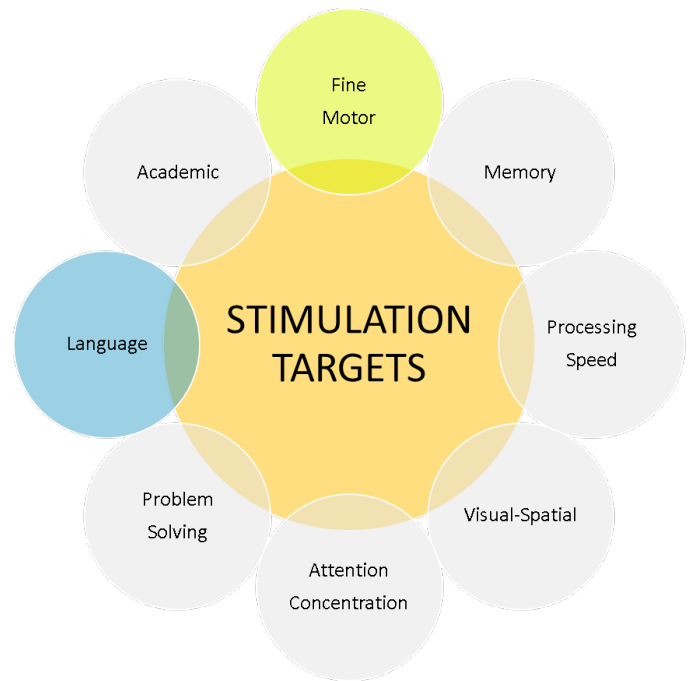
### Level 3

Notes:

- Put a handful of various small objects into the bowl of rice.
  - Examples: dried pea, a small stone, paper clip, etc.
- Mix the objects into the rice well so that they are somewhat hidden. Add more rice to the bowl and place fewer objects into the bowl as the person progresses.

Task:

- Without looking, find the objects hidden within the rice using only your hands and sense of touch.
- Name the objects.



## Locating Information

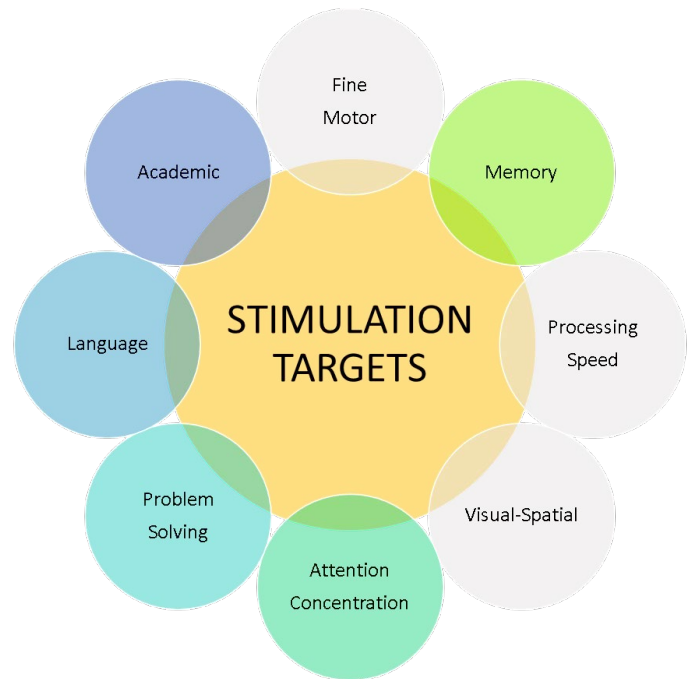
### Level 1

#### Notes:

- Find information using an internet search engine from a smartphone, tablet, or computer. Internet service and computer access can usually be found at your local library if you do not have a computer with internet access at home. This can be done in steps as the person progresses.
  - Ask to search for the phone numbers of several local businesses, definitions of words, information on topics of interest, news stories, weather forecasts and sport scores.

#### Task:

- Find requested information on the internet.



### Level 2

- Use a cable, satellite, or other on-screen channel guide. This can be done in steps as the person progresses.
  - Ask to find a specific show or movie that is currently playing.
  - Ask to find multiple shows that will be playing later that day at a specific time and channel.
  - Ask to list the shows on a specific channel upcoming in the next several hours.
    - Later in the day ask if any shows on the list can be recalled without looking.
  - Ask to plan an evening (no more than 2 hours) of television viewing, and ask for a brief summary at the end of each show.

#### Task:

- Find the information using the on-screen channel guide.

### Level 3

#### Notes:

- Provide the basic specs for a car search and ask to find cars that match the specs.
  - Example; find cars that are 4 door sedans, made from 2009-2012, air conditioned, and made by Buick.

#### Task:

- Use Google to search and find cars that meet the given specs.



## Number Sequences

### Level 1

#### Notes:

- Count from 1 to 10 in order.
  - It may be helpful to write each number on a single square of paper to visualize the numbers when counting.
  - It may be helpful to begin counting together for the first few numbers.
  - Saying the alphabet, days of the week, and months in order may also be done.
  - Written responses instead of verbally counting can be done if needed.
- Repeat several times.
- Count to higher numbers as the person progresses.

#### Task:

- Sequence information as directed.

### Level 2

#### Notes:

- Count from 1 to 10 in odd or even number order.
  - Example: count to 10 by 2s.
  - It may be helpful to write each number on a single square of paper to visualize the numbers when counting.
  - It may be helpful to begin counting together for the first few numbers.
  - Written responses instead of verbally counting can be done if needed.
- Repeat several times, switch from odd to even number order.

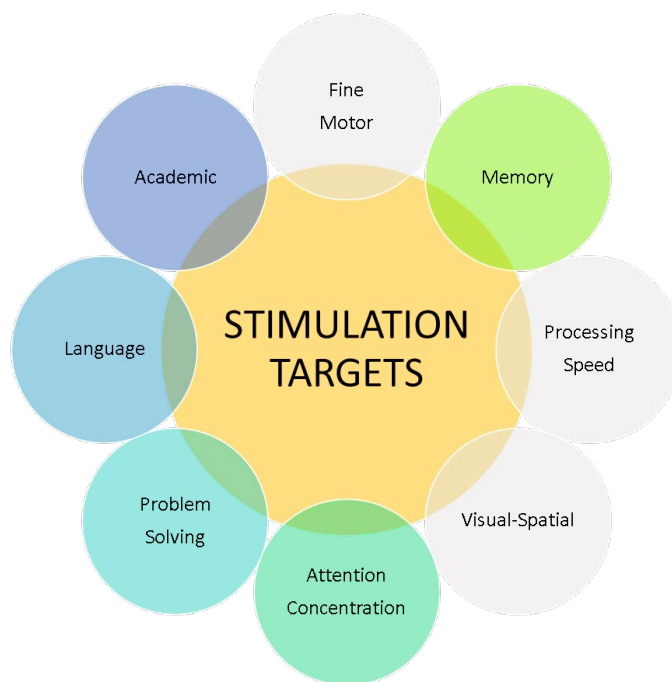
#### Task:

- Count as directed.

### Level 3

#### Notes:

- Say what you are doing and ask for the next numbers that follow the numbers you provide.
  - Example: I'm going to add 3 to each number to get the next number. You give the next numbers when I stop. 1, 4, 7, 10...
  - Example: I'm going to subtract 3 to each number to get the next number. You give the next numbers when I stop. 16, 13, 10, 7...
  - Written responses instead of verbally counting can be done if needed.
- Repeat several times, switching from adding and subtracting number order.
- Vary number to be added or subtracted.



Task:

- Continue counting as directed.

#### Level 4

Notes:

- Ask for the next numbers that follow the numbers you provide, without explaining the pattern.
  - Example: 1, 4, 7, 10...
  - Example: 16, 13, 10, 7...
  - Written responses instead of verbally counting can be done if needed.
- Repeat several times, switching from adding and subtracting and varying the number.

Task:

- Detect and continue the number pattern.

#### Level 5

Notes:

- Alternate between adding and subtracting, always using the same number for each arithmetic operation. For example, in the first step you add 2, in the second step you subtract 4, in the third step add 2, in the fourth step subtract 4, and so forth. Allow the person to write down the numbers as you provide them. Start by instructing what is being done ("I'm adding 2 to the first number I give you and subtracting 4 from the next number).
- Ask for the next numbers that follow the numbers you provide.
  - Example: 6, 2, 8, 4, 10, 6, 12...
  - Written responses instead of verbally counting can be done if needed.
- Repeat several times.
- Progress to not needing verbal instructions as to the arithmetic operations being performed.

Task:

Detect and continue the number pattern.

## Memory Recall

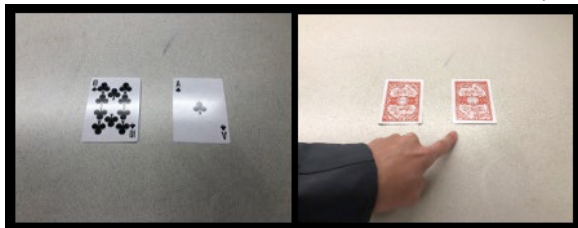
### Level 1

#### Notes:

- Place 2 playing cards face up on a table.
  - Example: Ace and 10
- Allow 5 seconds to view the cards.
- Turn the cards face down.
- Point out one of the cards
  - Example: "Point to the ace."
- Periodically ask to name a card that remains face down.
- Increase up to 5 cards with success.
- Allow an additional 5 seconds for viewing cards face with each added card.

#### Task:

- Point to the card.
- Name a card that is still face down, if asked.



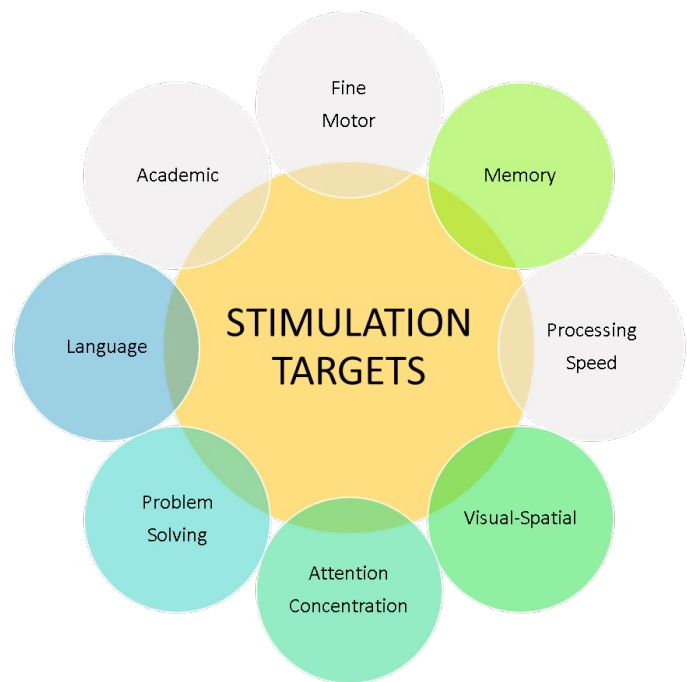
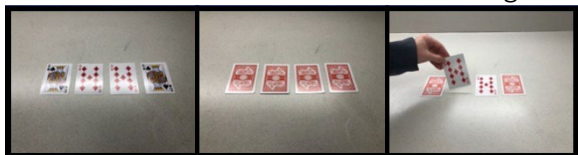
### Level 2

#### Notes:

- Sort out 2 of the same cards from two decks of cards.
  - Example: Sort out the king of spades and 9 of diamonds from both card decks.
- Place the 4 cards face up on the table side by side.
- Allow 10 seconds to view the cards.
- Turn the cards face down.
- Attempt to turn over the two matching cards.
  - Example: "Turn over two cards that match."
- Remove cards when a match is made.
- Turn the cards face down again for a repeat try if a match is not made.

#### Task:

- Turn over the 2 sets of matching cards.



### Level 3

#### Notes:

- Sort out 3 of the same cards from two decks of cards.
  - Example: Sort out the king of spades, 2 of clubs and 9 of diamonds from both card decks.
- Place the 6 cards face up on the table side by side.
- Allow 15 seconds to view the cards.
- Turn the cards face down.
- Ask to turn over two cards that match.
- Remove cards when a match is made.
- Turn the cards face down again for a repeat try if a match is not made.

#### Task:

- Turn over the sets of matching cards.



### Level 4

#### Notes:

- Sort out 3 of the same cards from two decks of cards.
  - Example: Sort out the king of spades, 2 of clubs and 9 of diamonds from both card decks.
- Place the 6 cards face down on the table in 3 cards in 2 rows without allowing time for viewing cards face up.
- Help to plan a strategy for turning over the cards.
  - Example: start by turning over the corner cards and verbally calling out the card and its position.
- Attempt to turn over two cards that match.
- Remove cards when a match is made.
- Turn the cards face down again for a repeat try if a match is not made.

#### Task:

- Turn over the sets of matching cards

### Level 5

#### Notes:

- Sort out 4 numerical cards in order.
  - Example: the 2, 3, 4, and 5 of clubs.
- Place the 4 cards face up on the table in random order
- Allow 5 seconds to view the cards.
- Turn cards over.
- Attempt to turn over the cards one at a time in sequence.
- Turn the cards face down again for a repeat try if a card is selected out of order.

#### Task:

- Turn over the cards in numerical order.



## Level 6

### Notes:

- Park your car in a large parking area on your next shopping trip.
- Instruct to remember where the car is parked.
- Help to plan a strategy for finding the car when returning after shopping.
  - Example: point out reference points near the car, like a sign, tree or other marker.
  - Example: point out the position of the car in the parking area, like is it on right, left, front, back or middle of the area.

### Tasks:

- Find way back to the car after the shopping trip.

## Level 7

### Notes:

- Walk through a grocery or department store.
- Point to 2 or 3 items in the store as you pass by.
- If needed, allow the items, but not the item's location, to be noted on paper or smart device.
- Go to another area of the store.

### Tasks:

- Recall or read list of items pointed out earlier.
- Return to where the items are located in the store.

## Physical Exercise

- Before starting activities in this area, it is best to consult a medical professional to make sure exercise as described below is safe for the individual.

### Level 1

#### Notes:

- Take a walk in the yard or through a park.
- Engage casually in conversation about the things you see during the walk.
- Ask questions from time to time about what was seen or said about 2 to 3 minutes ago.

#### Task:

- Answer questions.

### Level 2

#### Notes:

- Take a walk in the yard or through a park.
- Ask questions from time to time about where the walk started, how long have you been walking, how far have you walked, and how to return to the starting point.

#### Task:

- Answer questions.
- Find your way back to where you started.

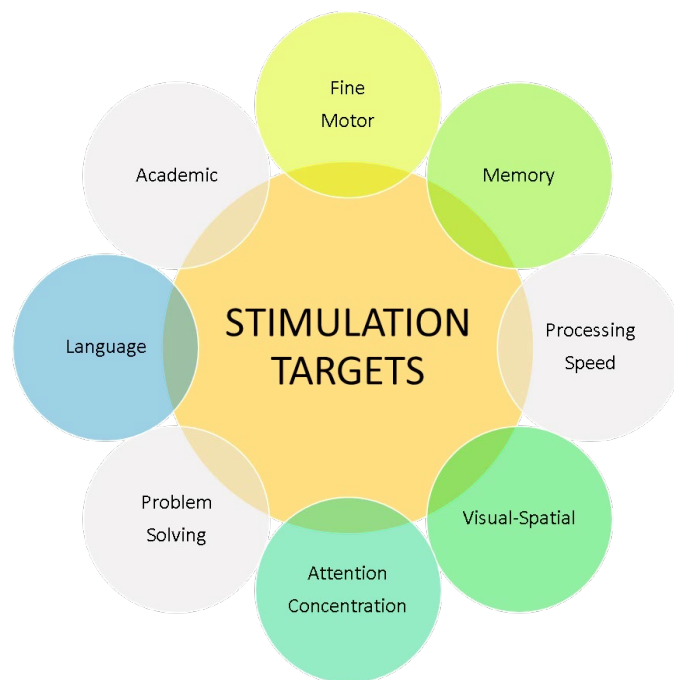
### Level 3

#### Notes:

- Help prepare a daily exercise schedule with a list of exercises that will be done each time. A physical or occupational therapist may be able to provide ideas if needed.
  - Example: shoot basketball, playing simple games like HORSE or counting the number of dribbles with a ball (both hands, left hand, right hand).
  - Example: toss and catch large, soft rubber balls and progress to using smaller balls (tennis ball or racquetball) as warranted by success.
  - If walking or standing is difficult, stretching exercises can be done in a seated position. Resistance bands may also be used.
  - Yoga or stretching routines may also be helpful. There are many free videos of routines on the internet.

#### Tasks:

- Write down a daily exercise schedule.
- Follow the scheduled activities.



## Coding

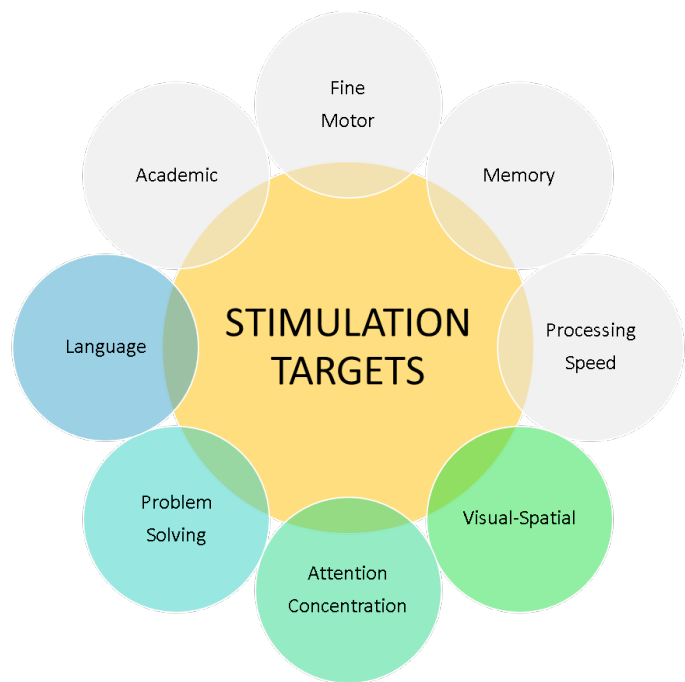
### Level 1

#### Notes:

- Write a code of symbols that correspond to numbers
  - Example: 0=\*, 1=@, 2=\$, 3=#, 4=<, 5=%, 6=&, and so on.
- Show the person the code of numbers and symbols
- Ask the person to use the code to generate a number.
  - Example: what number is equivalent to \$@

#### Task:

- Look at the code and generate the number



### Level 2

#### Notes:

- Write a code of symbols that correspond to a familiar number.
  - Code of symbols might be 2=\$, 3=#, 4=<, 5=%, 0=\*
  - Familiar number might be zip code (23450), phone number (522-4350), or other number.
- Show the person the code of numbers and symbols
- Ask the person to use the code to find the numbers.
  - Example: what numbers are equivalent to \$ # < % \* and how are the numbers familiar.
  - Example: what numbers are equivalent to % \$ \$ < # % \* and how are the numbers familiar.

#### Task:

- Look at the code to find the numbers
- How are the numbers familiar?

### Level 3

#### Notes:

- Write a code of symbols that correspond to letters
  - Example: A=Q, B=W, C=E, D=R, E=T, F=Y, G=U, H=I, I=O, J=P, K=A, L=S, M=D, N=F, O=G, P=H, Q=J, R=K, S=L, T=Z, U=X, V=C, W=V, X=B, Y=N, Z=M.
- Show the person the code
- Ask the person to use the code to find a word.
  - Example: what word is equivalent to KTR (RED)
- Find longer words and multiple words with sentences as the person progresses.

#### Task:

- Look at the code and find the word.

## Card Games

### Level 1

Note:

- Set the person up to play a game of Solitaire on the computer, smart device or with a deck of playing cards.

Task:

- Play the game.

### Level 2

Note:

- Join the person in playing a game of War or Go Fish.

Task:

- Play the game.

### Level 3

Note:

- Join the person in playing a game of Blackjack or Poker.
  - Assign a different wildcard to each hand to add challenge.

Task:

- Play the game.

### Level 4

Note:

- Join the person in playing a game of Uno.
- Add more players as the person progresses.

Task:

- Play the game.

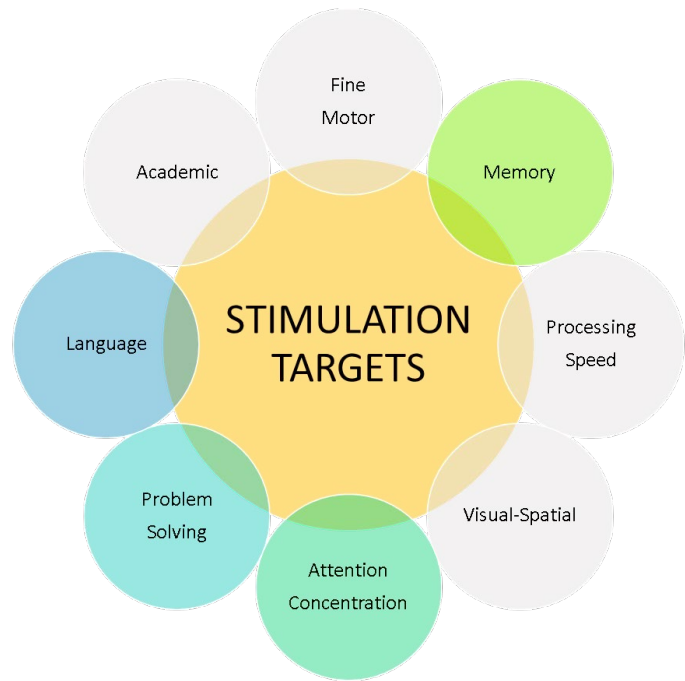
### Level 5

Note:

- Join the person in playing a team card game, like Hearts or Bridge.

Task:

- Play the game





## Categorization Exercises

### Level 1

#### Notes:

- Gather household objects that can be categorized into 3-4 different groups.
  - Examples: group magazines, books and news clippings into things you read. Group forks, spoons and knives into things used to eat. Group pens, pencils and markers into things used to write, etc.
  - Examples: group objects by size, weight, shape, what they are made out of, what they are used for, etc.
- Lay out the objects directly in front of the person
- Ask the person to find other objects that match into a group.
  - Examples: put together items you read. Put together items that are the same size.
- Add more items and groups as the person progresses.
- Ask the person to come up with categories for items on their own for added challenge,

#### Task:

- Group the items.

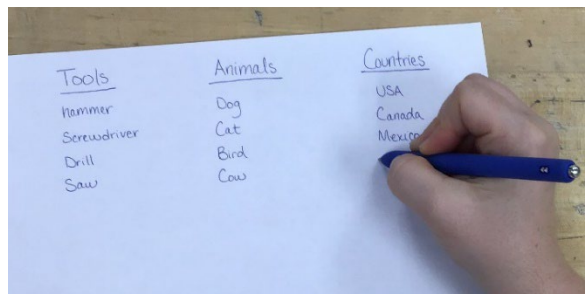
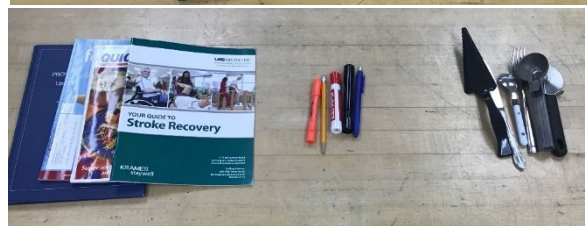
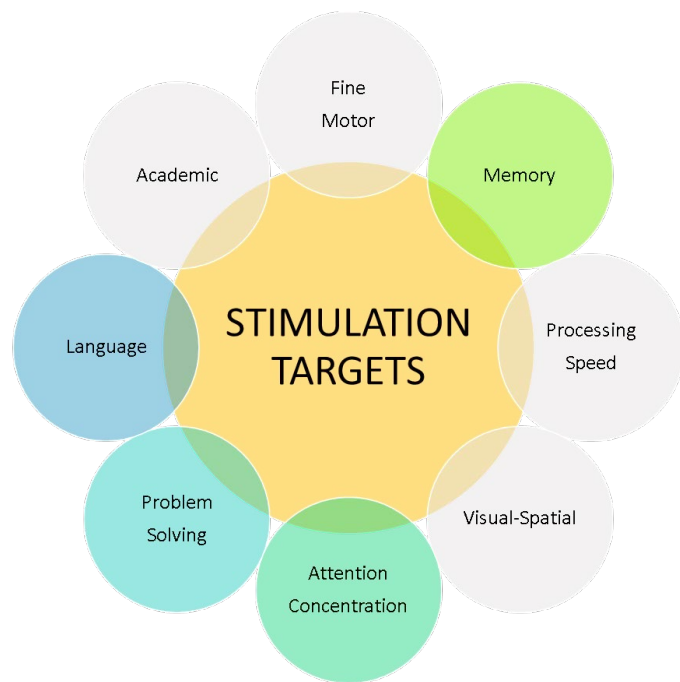
### Level 2

#### Notes:

- Name a general group topic that has many items to list in the group.
  - Examples: tools, animals, plants, countries, occupations, foods, sports, cars, etc.
- Ask the person to say or write down as many items in that group as possible.
  - Give clues or hints as needed.
    - Example: what animals are found in a zoo, foods you might have for dinner.

#### Task:

- Say or write down as many items as you can think of.



### Level 3

#### Notes:

- Name a more specific group topic that has fewer items to list in the group.
  - Examples: animals that have fur, foods in the dairy section in the grocery, sports that involve running, etc.
- Ask the person to say or write down as many items in that group as possible.
  - Give clues or hints as needed

#### Task:

- Say or write down as many items as you can think of.

### Level 4

#### Notes:

- Write down 3 specific items that can be grouped and ask what these items have in common.
  - Examples: cotton, milk, and a wedding dress are all typically white; a nail, a screw, and a staple are all fasteners.
- Ask the person to write down 1 or 2 other items that fit into the group.
  - Give clues or hints as needed

#### Task:

- Write down as many items as you can think of.

### Level 5

#### Notes:

- Write down 3 specific items that can be grouped and an item that does not belong in the group.
  - Examples: cotton, milk, a wedding dress and grass.
- Ask the person which item does not fit into the group, why it does not fit into the group, and to name another item that does fit into the group.
  - Give clues or hints as needed

#### Task:

- Name which item does not fit into the group, why it does not fit into the group, and to name another item that does fit into the group.

### Level 6

#### Notes:

- Have a simple item in mind and share the general category with the person.
  - Example: something to purchase in a grocery store, some place to visit on vacation, a musical instrument.
- Encourage the person ask logical questions to guess the item.
  - Suggest asking broad questions first, like if it is something to purchase in a grocery store, "Is it a vegetable?" or "Is it a meat?" before asking a specific question, like "Is it butter?"
  - Offer hints and guidance as needed.
- Allow as many questions as needed, and start limiting the number of questions allowed as the person progresses. (like a game of 30, 20 and 15 questions)

#### Task:

- Ask questions to guess the item.

## Time Exercises

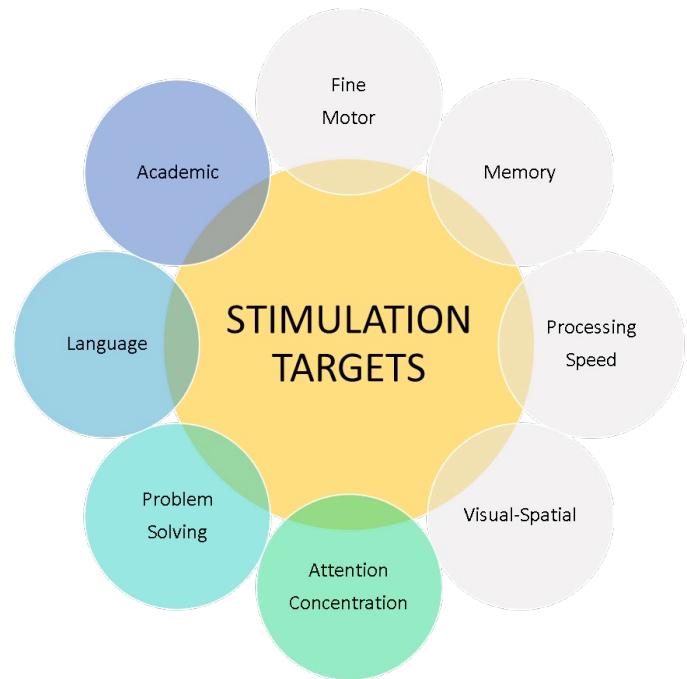
### Level 1

#### Notes:

- Use an analog clock (with minute and hour hands), a digital clock, or a combination of the two.
- Set the clock to the top of any hour and change it to 15 minutes ahead or 15 minutes behind.
  - Example: set a clock to 8:00 and then set it forward to 8:15.
- Ask the person to tell you the time on the clock.
- Change the clock in 15-minute increments of time and ask the person to read the time.
- Ask what time it will be in 15 minutes or 30 minutes.
- Ask the person what the actual time is.
- Ask less obvious time projections as the person progresses.
  - Example: "What time will it be in 23 minutes?"
- Ask how much time has passed after doing another kind of activity, such as having a conversation or watching a television show, and inform the person how close to being accurate the person is and ask again later.
  - Example: "How long ago did I come into your room?"

#### Task:

- Give the time.



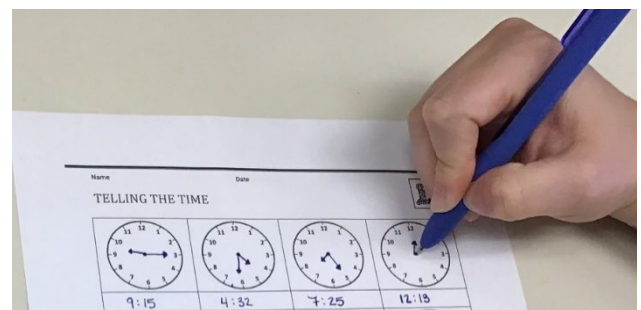
### Level 2

#### Notes:

- Draw on paper several circular clocks with numbers but no hands.
- Write a time below each clock
  - Example: 4:15
- Ask the person to draw the hands on the clock above so that it reads the written time.
  - Repeat with several different times.
- Draw on paper several circular clocks with numbers and hands set to a time
- Ask the person to write numeric time shown on the clock.
  - Repeat with several different times.

#### Task:

- Draw the hands on the circular clock
- Write down the time shown on the circular clock



### Level 3

- Think of ways to use the clock in combination with a daily task.
  - Example: cooking a roast that takes 2 hours and 20 minutes to cook.
- Ask a questions that require figuring timeframes.
  - Example: “We want to eat the roast at 6:30. What time should the roast be placed in the oven to have time to cook and be ready to eat?” “If we want to leave the house at 9:00 am, what time do you need to get up to be ready?”

Task:

- Give the time.

### Level 4

Notes:

- Use a general United States map that also highlights geographical time zones
- Present time questions that involve changing of time zones.
  - Example: If someone leaves Texas at 10:00 am (Central Time) and travels for two hours to reach Georgia (Eastern: Time), what would be the arrival time in Georgia (correct answer: 1:00 pm)?
  - Move to a world map with highlights of geographical time zones and ask similar questions as the person progresses.

Task:

- Give the time.

### Level 5

Notes:

- Create meals with recipes and meal plans.
- Work with the person to read and calculate time passage as it relates estimating cooking times for various dishes.
  - Examples: “We want to make spaghetti. How long will the noodles take to cook? How long does the sauce take to make? Which should we start first?”

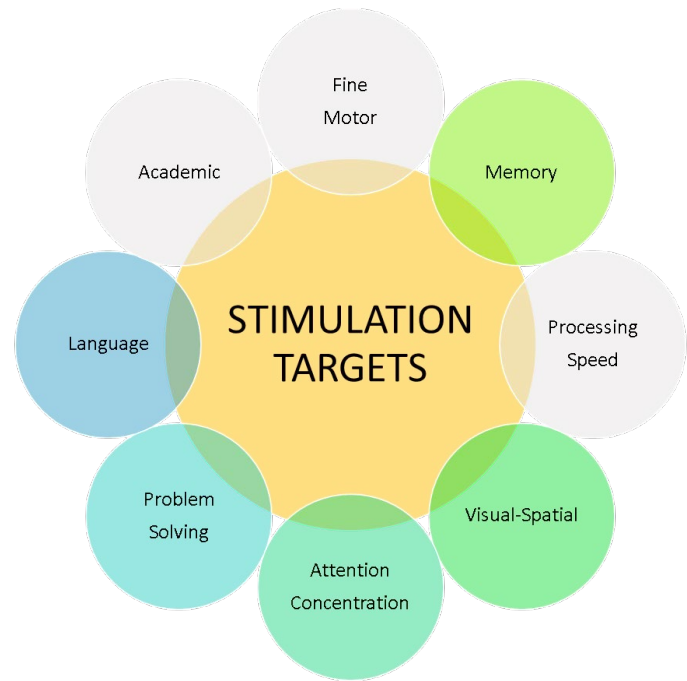
Task:

- Plan a complex meal.
- Estimate how long each item will take and when it should be started.

## Deductive Reasoning

### Note:

- This activity may become lengthy, so it is a good idea for the person to keep track of selections by using colored pencils or crayons corresponding to the colors of the objects you are using.
  - Use 2 rows of marks with each row of marks representing a different turn.
    - Example: in guessing 3 colors, 1 row is marked with the matching 2 correct color guesses, and 1 row is marked with the incorrect color guess.



### Level 1

#### Notes:

- Show the person 3 small objects of varying colors.
  - Example: red button, blue candy, and white bottle cap.
- Write down the colors of the objects so the person does not forget the colors.
- Without the person looking, place 2 of the objects in your hand.
- Ask the person to name the colors of the objects hidden in your hand.
  - Give the person specific feedback on whether or not the choices are correct.
    - Example: Blue is correct. Green is not correct.
  - Ask the person to try again to name the colors of the objects hidden in your hand.
  - After each correct or incorrect answer, talk through reasoning behind making the choices.
    - Example: If one object is green and the other is not blue, what color is left?
- Repeat until the person names the correct colors within two attempts on a consistent basis.

#### Task:

- Name the correct colors hidden in your hand.

### Level 2

#### Notes:

- Show the person 3 small objects of varying colors.
  - Example: red button, blue candy, and white bottle cap.
- Without the person looking, place 2 of the objects in your hand.
- Ask the person to name the colors of the objects hidden in your hand.
  - Give the person non-specific feedback on whether or not the choices are correct.
    - Example: One color is correct.
  - Ask the person to try again to name the colors of the objects hidden in your hand.
  - After each correct or incorrect answer, talk through reasoning behind making the choices.
    - Example: How can you figure out which color was correct?

- Repeat until the person names the correct colors within two attempts on a consistent basis.

Task:

- Name the correct colors hidden in the hand.

### Level 3

Notes:

- Show the person 4 small objects of varying colors.
  - Example: red button, blue candy, green ribbon, and white bottle cap.
- Without the person looking, place 2 of the objects in your hand.
- Ask the person to name the colors of the objects hidden in your hand.
  - Begin by giving the person non-specific feedback (as with Level 2) on whether or not the choices are correct, but give the person specific feedback (as with Level 1) if the person grows frustrated.
  - Ask the person to try again to name the colors of the objects hidden in your hand.
  - After each correct or incorrect answer, talk through reasoning behind making the choices.
- Repeat until the person names the correct colors within two attempts on a consistent basis.

Task:

- Name the correct colors hidden in the hand.

### Level 4

Notes:

- Show the person 4 small objects of varying colors, with a color repeated.
  - Example: red button, blue candy, blue ribbon, and white bottle cap.
- Without the person looking, place 2 of the objects in your hand.
- Ask the person to name the colors of the objects hidden in your hand.
  - Begin by giving the person non-specific feedback (as with previous Levels) on whether or not the choices are correct, but give the person specific feedback (as with Level 1) if the person grows frustrated.
  - Ask the person to try again to name the colors of the objects hidden in your hand.
  - After each correct or incorrect answer, talk through reasoning behind making the choices.
- Repeat until the person names the correct colors within two attempts on a consistent basis.

Task:

- Name the correct colors hidden in the hand.

### Level 5

Notes:

- Show the person 4 small objects of varying colors, with a color repeated.
  - Example: red button, blue candy, blue ribbon, and white bottle cap.
- Without the person looking, place 3 of the objects in your hand.
- Ask the person to name the colors of the objects hidden in your hand.
  - Begin by giving the person non-specific feedback (as with previous Levels) on whether or not the choices are correct, but give the person specific feedback (as with Level 1) if the person grows frustrated.
  - Ask the person to try again to name the colors of the objects hidden in your hand.
  - After each correct or incorrect answer, talk through reasoning behind making the choices.

- Repeat until the person names the correct colors within two attempts on a consistent basis.

Task:

- Name the correct colors hidden in the hand.

## Drawing Figures

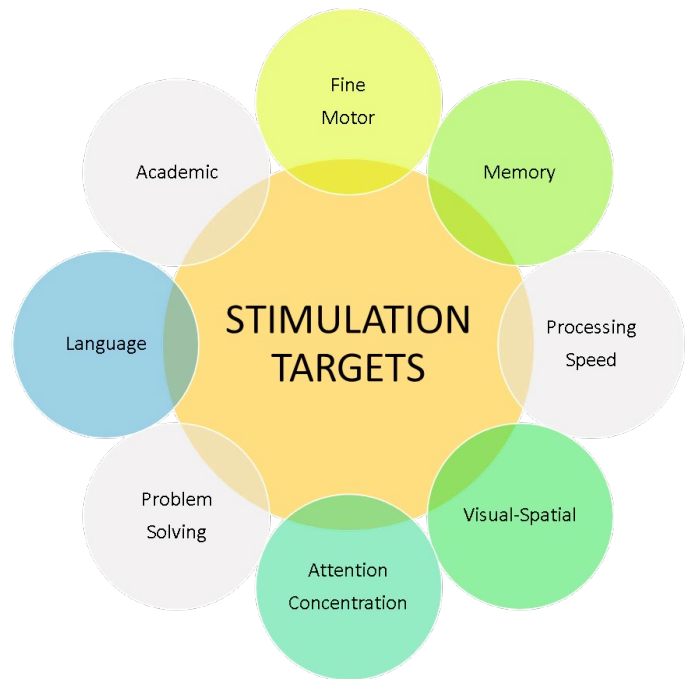
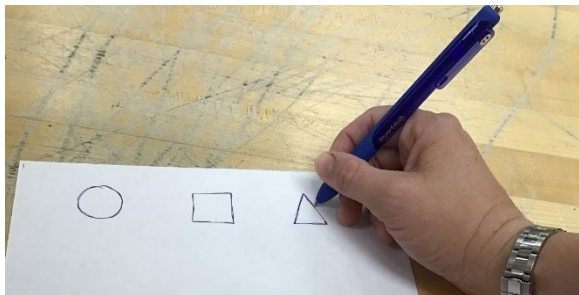
### Level 1

#### Notes:

- Ask the person to watch you draw a simple shape.
  - Examples: circle, square, or triangle.
- Ask the person to trace the edge of the shape using a different color pencil.
- Repeat with different shapes.
  - Draw more complex shapes as the person progresses.
    - Examples: hexagon, octagon, etc.

#### Task:

- Trace the edge of the shape.



### Level 2

#### Notes:

- Draw a simple shape on paper
  - Examples: circle, square, or triangle.
- Tape another blank sheet of paper over the drawing and ask the person to shadow trace the shape.
- Repeat with different shapes.
  - Draw more complex shapes as the person progresses.
    - Examples: hexagon, octagon, etc.

#### Task:

- Trace the shape.



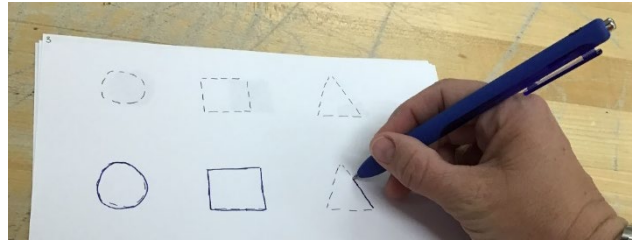
### Level 3

#### Notes:

- Draw a dotted outline of a simple shape.
  - Examples: circle, square, or triangle.



- Ask the person to connect the dots to draw the shape.
- Repeat with different shapes.
  - Draw fewer dots as the person improves
  - Draw more complex shapes as the person improves.
    - Examples: hexagon, octagon, etc.



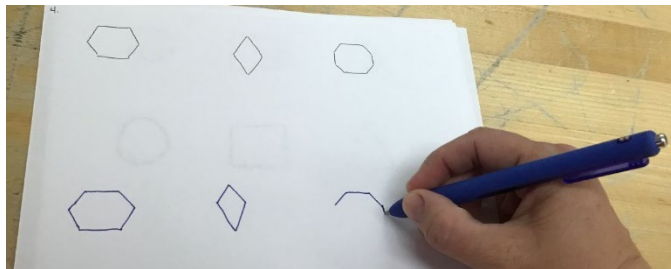
Task:

- Trace the edge of the shape.

#### Level 4

Notes:

- Draw a more complex shape on a sheet of paper.
  - Examples: hexagon, octagon, etc.
- Ask the person to draw a copy of the shape on another sheet of paper.
  - Aim for the drawing to be as close to the same size and shape as possible.
- Repeat with different shapes.
- Ask the person to draw objects as the person improves.
  - Examples: house, tree, car, etc.



Task:

- Draw the shape or object.

#### Level 5

Notes:

- Ask the person to draw complex shapes and objects without looking at a drawing to copy.
  - Examples: hexagon, octagon, etc.
  - Examples: house, tree, car, etc.

Task:

- Draw the shape or object.

#### Level 6

Notes:

- Ask the person to draw three-dimensional objects without looking at a drawing to copy.
  - Examples: house, box, chair, etc.

Task:

- Draw the object.

## Fine Motor Control

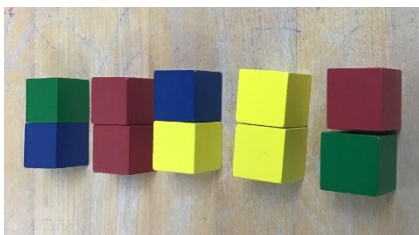
### Notes:

- This activity can be done with blocks of uniform size, such as 2"x2" children's building blocks.

### Level 1

#### Notes:

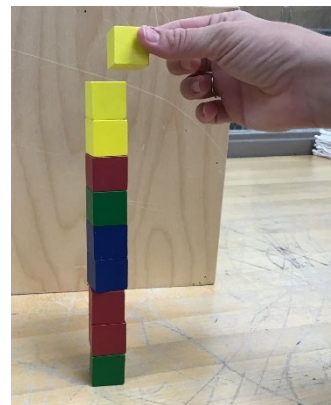
- Lay out on a flat surface a number of small blocks.
  - Example: 10 2"x2" wooden blocks.
  - Add more blocks as the person progresses.



- Ask the person to use the hand with the best strength and dexterity to make a single block tower as high as possible, aligning the blocks carefully to help with stability.
  - Repeat the activity with the weaker hand if possible.

#### Task:

- Stack the blocks as high as possible.



### Level 2

#### Notes:

- Ask the person to use the hand with the best strength and dexterity to remove one-by-one the top block from the stack of blocks completed in Level 1 without knocking over the stack.
  - Repeat the activity with the weaker hand if possible.

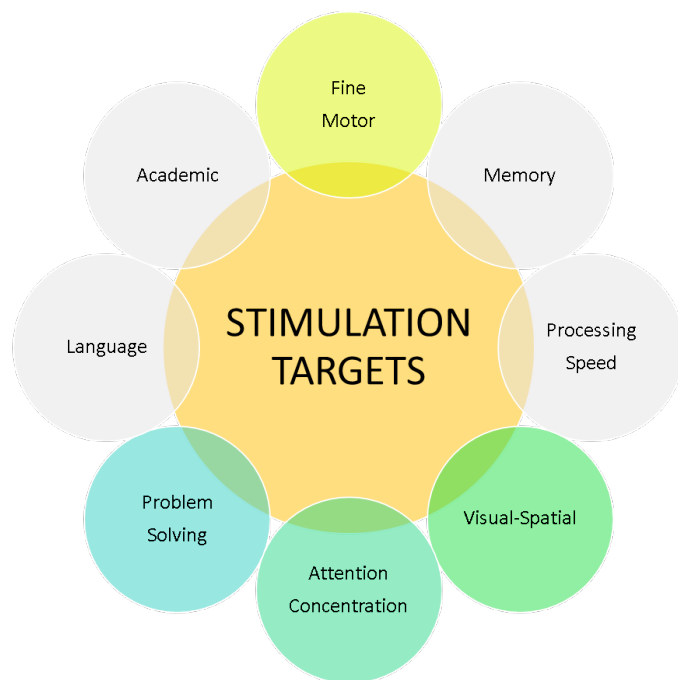
#### Task:

- Remove blocks one at a time from the top of a stack of blocks without knocking over the stack

### Level 3

#### Notes:

- Lay out on a flat surface a number of small blocks.
  - Example: 20 2"x2" wooden blocks.
  - Add more blocks as the person progresses.
- Ask the person to make two block towers as high as possible.
  - Alternate using each hand individually and both hands simultaneously, if possible.



Task:

- Stack the blocks as high as possible.

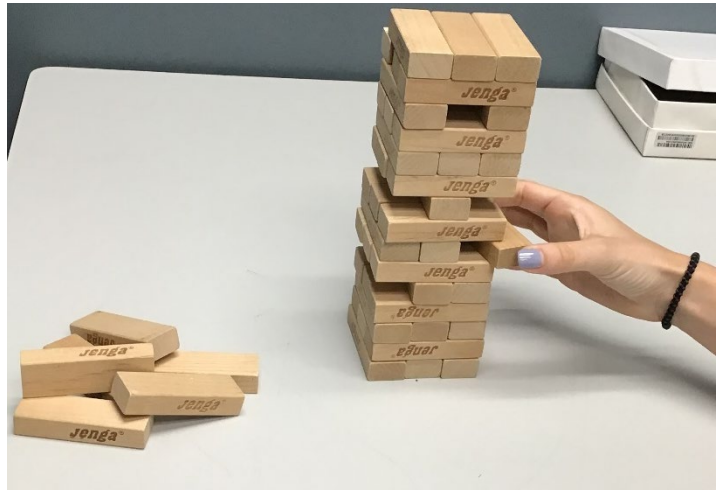
#### Level 4

Notes:

- Play the game, Jenga.
  - Use of two hands may be needed at first, but encourage the transition to alternate use of each hand, if possible.

Task:

- Play Jenga.



## Organizational Activities

### Level 1

#### Notes:

- Write down in incorrect order 3 or 4 numbers, days of the week, or months of the year.
  - Example: 5, 3, 8, or Monday, Saturday, Thursday, or June, January, February
- Ask the person to either tell you or write down the correct order.

#### Task:

- Put the numbers, days, months in order.

### Level 2

#### Notes:

- Write down on one sheet of paper 10 to 15 simple 3 to 4 words sentences.
  - Example: The cat is hungry. I made dinner.
- Re-write the sentences on another sheet of paper with the words in each sentence scrambled.
  - Example: Is hungry cat the. Dinner made I.
- Ask the person to re-order the sentences into the correct manner.
- Offer hints if needed.
  - Examples:
    - “What is this sentence about?”, ‘A cat.’
    - “What about the cat?”, ‘He’s hungry.’
    - “Ok, now, say the full sentence.”
- Show the person the correctly written sentences if hints are not successful.

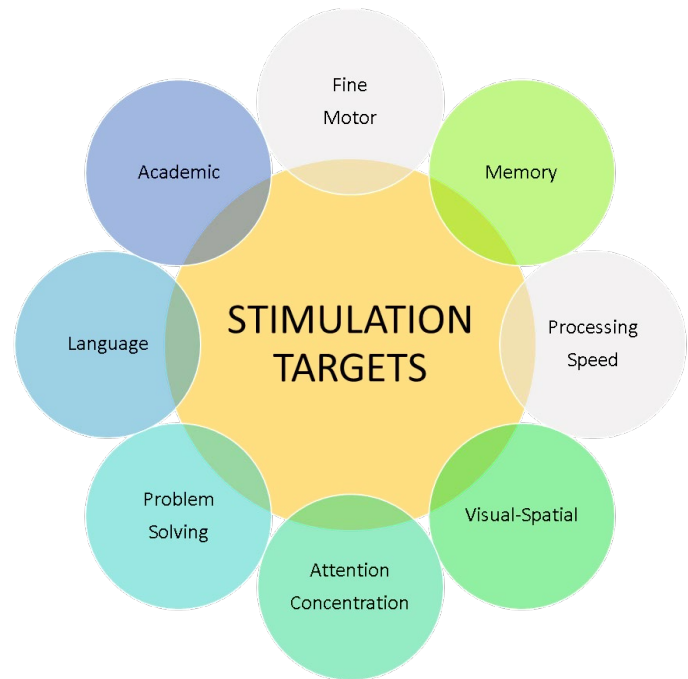
#### Task:

- Put the sentences in the correct order.

### Level 3

#### Notes:

- Write down on one sheet of paper 10 to 15 longer sentences.
  - Examples:
    - I can’t find my sweater.
    - This is a dead end street.
    - I don’t know where she went.
- Re-write the sentences on another sheet of paper with the words in each sentence scrambled.
  - Examples:
    - find can’t my sweater I.
    - end street a this is dead.
    - know she don’t I where went.
- Ask the person to re-order the sentences into the correct manner.



- Offer hints if needed.
  - Example: Capitalize the first word in the sentence. ('end street a This is dead.)
- Show the person the correctly written sentences if hints are not successful.

Task:

- Put the sentences in the correct order.

#### Level 4

Notes:

- Gather about 10 to 12 household items and limit the time spent on the activity to about 20 minutes.
  - Examples: 10-12 books, 10-12 pantry items, 10-12 linens, etc.
- Ask the person to organize the items in different ways.
  - Examples: organize alphabetically, increasing the complexity by ranking by style or size, grouped by color, by frequency of use, etc.

Examples: group objects by size, weight, shape, what they are made out of, what they are used for, etc.

- Lay out the objects directly in front of the person
- Add more items and groups as the person progresses.

Task:

- Organize the items.

#### Level 5

Notes:

- Ask the person to organize an area around the house to promote a sense of purpose as well as cognitive stimulation.
  - Examples: a workbench, the kitchen cabinets, the pantry, the family library, a toy closet, or a linen closet.

Task:

- Organize the area.

#### Level 6

Notes:

- Set the person up with volunteer time.
  - Examples: local library, charity organization.
- Suggest that the person be involved in activities such as filing, organizing data on a computer, organizing information materials, or organizing mailing addresses.

Task:

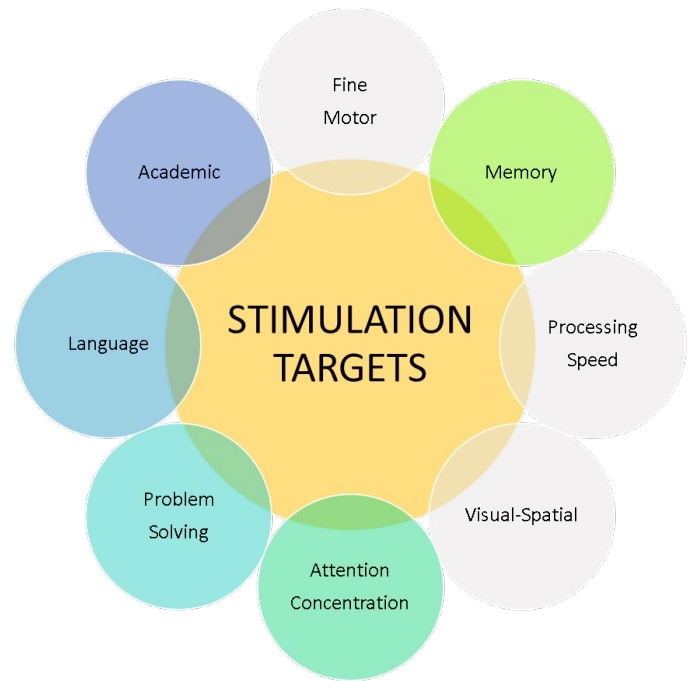
- Do volunteer work.

## Orientation Tools

### Level 1

#### Notes:

- Help the person develop a daily schedule of activities to do.
  - Create a simple form with times of the day organized into 30-minute slots of time and break periods several times a day, which should last 30 minutes to an hour.
    - Start with the basics of getting up in the morning, washing face, brushing teeth, meals, chores, “rehab” activities, and other things.
    - Keep each day’s schedule similar in schedule.
    - Review each day’s schedule with the person
    - Keep the schedule posted in several places around the home.
    - Refer to the schedule often with the person throughout the day, especially when changing activities.
    - Ask questions such as, “What are you supposed to do next?” When appropriate, ask the person to fill out the schedule with your help.



#### Task:

- Create and follow a daily schedule.
- Answer questions you are asked.

### Level 2

#### Notes:

- Use a print calendar that can be looked at easily and as often as needed.
  - Add important events, such as appointments and birthdays, on the calendar.
- Allow the person to see the calendar and ask questions.
  - Ask if the person knows the day, date, month, and year it is.
  - Ask if the person knows what events are coming in the next several days.
- Repeat throughout the day.

#### Task:

- Name the day, date, month, or year you are asked about.
- Name the upcoming events in the next several days you are asked about.

### Level 3

#### Notes:

- Use a print calendar or editable electronic calendar that can be looked at easily and as often as needed.
  - Add important events, such as appointments and birthdays, on the calendar.
- Ask questions before showing the person the calendar, but allow the person to refer to the calendar if needed.
  - Ask if the person knows the day, date, month, and year it is.
  - Ask if the person knows what events are coming in the next several days.
- Repeat throughout the day.

#### Task:

- Name the day, date, month, and year it is when asked you are asked about.
- Name the upcoming events in the next several days you are asked about.

### Level 4

#### Notes:

- Ask the person about past and future days and events on the calendar, and only refer to the calendar if needed.
  - Example: ask what the day and date will be tomorrow, next week, 5 days ago, how many days until a specific holiday, birthday, etc.

#### Task:

- Name the day, date, month, or year you are asked about.
- Name the time since or until the event you are asked about.

### Level 5

#### Notes:

- Ask the person about past and future days and events not on the calendar.
  - Example: ask what was eaten for lunch, when did you go to the store, when did you see a movie, etc.
  - Ask about events that happened a few hours ago, a few weeks ago, months ago, or even years ago.
  - You might help the person develop a chronology of events in time.0.360

#### Task:

- Name the time when you did the event you are asked about.

### Level 6

#### Notes:

- Ask the person to create and follow a personalized print calendar that the person can easily carry.
  - Add daily activities to be done.

#### Task:

- Create and follow your daily calendar schedule.

### Level 7

#### Notes:

- Ask the person to download a personalized calendar app or editable electronic calendar with a notification function.
  - Add daily activities to the calendar.
  - Add medication schedule.
  - Set notifications for when the added activities are to be done

Task:

- Create and follow your daily calendar schedule.

## Level 8

Notes:

- Help the person to create a “Memory Book.”
  - Use a small spiral notebook, an electronic notepad, or a private social media page solely devoted to adding daily notes.
  - Include an autobiographical background summary, daily schedules, medication schedules, important telephone numbers and family/friends’ names, etc.
- Ask the person specific questions found on the Memory Book.
  - Example: “Can you find your medication schedule in your Memory Book?”

Task:

- Add information that is important to remember to your Memory Book.
- Find information that you are asked to find.

## Level 9

Notes:

- Encourage independent use of the memory book.
- Ask specific questions found on the Memory Book.
  - Examples: “What have you added to your Memory Book today?”
- Aim for increasing independence using the Memory Book as the person progresses.

Task:

- Keep information in your Memory Book updated daily.
- Find information that you are asked to find.



## Reading Comprehension

Note:

- People with poor memory or attentional skills may have poor reading comprehension skills when they have somewhat intact reading abilities. You can address this by asking the person to read increasing more difficult or complex written instructions and ask the person to follow the instructions.



### Level 1

Note:

- Ask the person to read numbers, letters, weekdays, and months.
  - Number can be in numerical (46) and written (forty-six)

Task:

- Read the numbers, letters, weekdays, and months.

### Level 2

Note:

- Create index cards with single words naming objects around the house or pictures you have.
  - Example: fork
- Show the person the card, the object written on the card, and another object.
- Ask the person to match the object with the word on the card.
- Show a card and add other objects to choose from as the person progresses.
- Show an object and add cards to choose from as the person progresses.

Task:

- Match the cards with the objects.

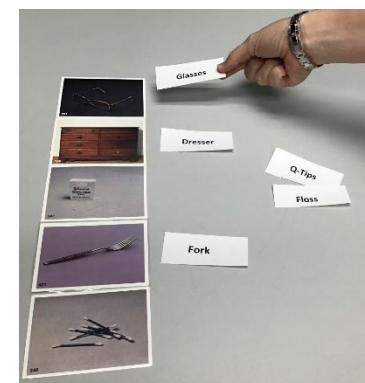
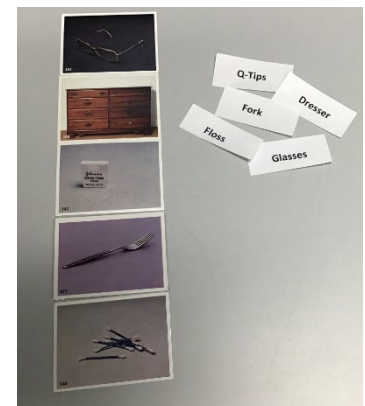
### Level 3

Note:

- Ask the person to read a short paragraph.
  - Ask the person to read the paragraph aloud to ensure the person is reading accurately. Once this is established for several paragraphs, reading can be done silently.
- Ask questions about the paragraph's content.

Task:

- Read the paragraph and answer questions about what you read.



#### Level 4

##### Note:

- Ask the person to read aloud from a book, magazine, etc.
  - When accuracy of reading is established, reading can be done silently.
- Ask questions about the content and correct answers when needed.
- Ask the person to think of questions to ask you about the content, and let the person answer the questions, too.

##### Task:

- Read the material, answer questions about what you read, and think of questions to ask about the content.

## Rhythm Matching

### Level 1

- Sit in front of the person and tap out a simple, two-step rhythm several times with your hand on the table.
  - Example: tap-delay-tap-delay...
  - Provide a verbal cue as well, if needed, by saying “tap, delay, tap” in the same rhythm as your hand.
- Ask the person to tap in rhythm with you.
  - Stop tapping and let the person continue tapping in rhythm without you.
  - Provide guidance and physical assistance by placing your hand over that of the person and tapping as one, as needed.

Task:

- Tap to the rhythm

### Level 2

- Sit in front of the person and tap out a harder rhythm with your hand on the table.
  - Example: tap-tap-delay-tap-tap-delay-tap-tap-delay-tap-tap-delay...
  - Explain what you are doing as the person watches. For example, “I am tapping once, then waiting a second, and then tapping twice.”
  - Vary rhythms and tempos as the person progresses
- Ask the person to tap in rhythm with you.
  - Stop tapping and let the person continue tapping in rhythm without you.

Task:

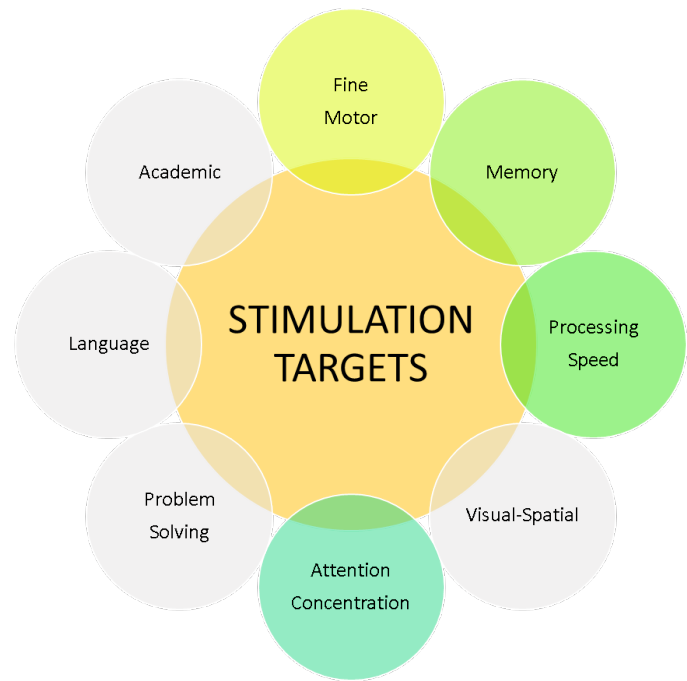
- Tap to the rhythm

### Level 3

- Sit with the person facing away from you and tap out a harder rhythm with your hand on the table.
  - Example: tap-tap-delay-tap-tap-delay-tap-tap-delay-tap-tap-delay...
  - Encourage the person to explain what you are doing without the person watching what you do.
  - Vary rhythms and tempos as the person progresses
- Ask the person to tap in rhythm with you.
  - Stop tapping and let the person continue tapping in rhythm without you.

Task:

- Tap to the rhythm



#### Level 4

- Play music that has a consistent rhythm.
  - Examples: "The Stars and Stripes Forever", "Semper Fidelis", "The Liberty Bell", "The Thunderer", and "The Washington Post" by John Philip Sousa
  - Examples: "Happy Birthday," "She'll be Coming Around the Mountain," "Michael Row Your Boat Ashore," "This Land is Your Land."
  -
- Help the person to find the rhythm and tap to the rhythm with you.
  - Stop tapping and let the person continue taping in rhythm without you.

Task:

- Tap to the rhythm.

#### Level 5

- If the person has experience playing an instrument or has an interest in playing, encourage the person to play.
  - Any instrument and any skill level is appropriate.
  - Suggest using sheet music if the person reads sheet music.
  - Playing daily is encouraged.
- If the person played an instrument before the injury, anticipate some level of discouragement when trying to play again. In all likelihood, the person will not play as well as previously. Focus on small improvements to build confidence and resolve.

Task:

- Play an instrument.

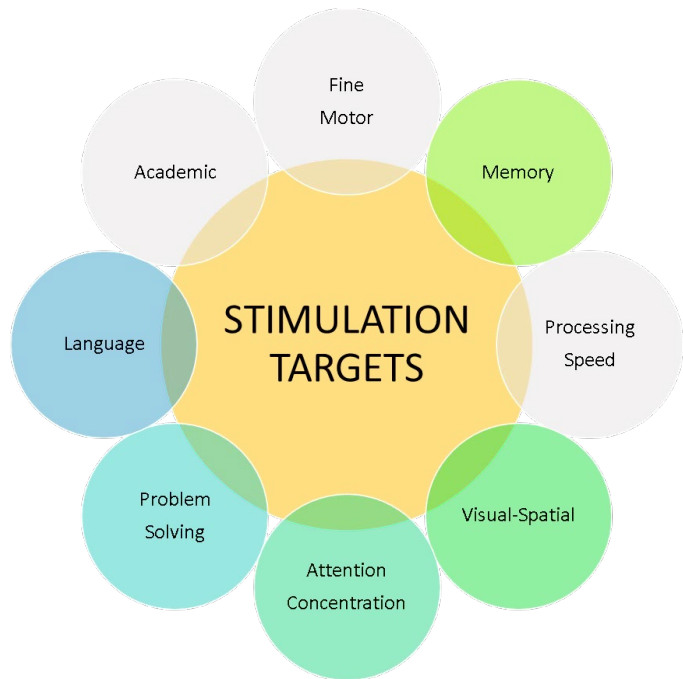
## Two Dimensional Arrays

### Level 1

#### Notes:

- Draw a grid similar to a tic-tac-toe that fills an 8x10 sheet of paper.
- Write the letters A, B, and C above the 3 columns and the numbers 1, 2, and 3 to the left of the 3 rows.
- Ask the person to use a finger and point to squares on the grid.
  - Example: point to all of the squares under the letter B.
  - Repeat for other columns and rows.

	A	B	C
1			
2			
3			



#### Task:

- Point to the designated squares.

### Level 2

#### Notes:

- Use the same grid as used on the previous Level.
- Ask the person to use a finger and point to a specific square on the grid.
  - Example: point to the square under the letter B and in row 2.
  - Repeat for other squares on the grid.

	A	B	C
1			
2			
3			

#### Task:

- Point to the designated square.

### Level 3

#### Notes:

- Use the same grid as used on previous Levels.
- Point to a square.
  - Example: point to the square under the letter B and in row 2.
- Ask the person to name the column and row you are pointing at.
  - Repeat for other squares on the grid.

	A	B	C
1			
2			
3			

#### Task:

- Name the column and row of the square.

### Level 4

#### Notes:

- Use the same grid as used on previous Levels.
- Ask the person to write an "X" on a specific square.
  - Example: write an "X" on the square under the letter B and in row 2.
  - Repeat for other squares on the grid.

	A	B	C
1			
2			
3			

Task:

- Write an X in the designated square.

### Level 5

Notes:

- Use the same grid as used on previous Levels to play tic-tac-toe.
- You and the person are to first say the name of the column and row of the square before it is marked with an “X” or “O.”
  - Example: “I select B2.”

	A	B	C
1			
2			
3			

Task:

- Play tic-tac-toe.

### Level 6

Notes:

- Draw a large grid of columns and rows.
- Write letters above the columns and numbers to the left of the rows.
- Give the column and row of a square and ask the person to use a finger and point to the square on the grid.
  - Example: point to B9.
  - Repeat for other squares.

Task:

- Point to the squares.

	A	B	C	D	E	F	G	H	I	J
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

### Level 7

Notes:

- Play the game, Battleship.
  - It is important to work with the person to develop a strategy for searching for ships and how to narrow the search with each “hit.”

Task:

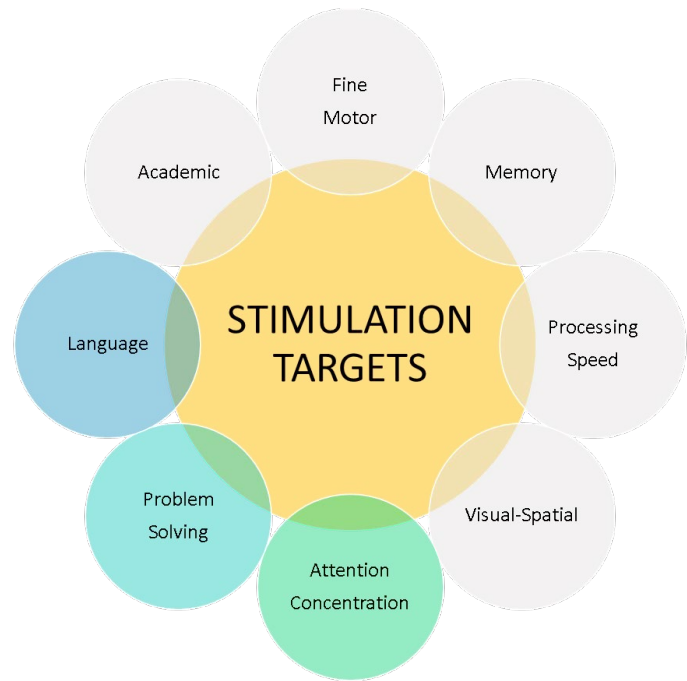
- Play Battleship.

## Smart Home

Important Note: These activities require some level of knowledge in setting up and using smart devices, so use your best judgement on whether or not these activities are appropriate for your situation.

A Smart Home is a collection of devices in your home that connects to your home's Wi-Fi network to allow you to control those devices via smartphone, tablet, computer or voice.

- There are a growing number of smart home devices that are available at a range of prices.
- New and advancing smart home technologies are now a part of everyday living. It can be very helpful to stay informed and explore various ways for the new and advancing technologies are used for cognitive stimulation and to increase a person's independence.



### Level 1

Notes:

- Disconnect a smartphone, tablet, or computer from your home's Wi-Fi network
- Provide the password and help the person locate the Wi-Fi settings on your device and reconnect to the Wi-Fi network.
  - Being able to connect to the Wi-Fi is the basis for setting up smart home devices.

Task:

- Locate Wi-Fi settings and connect to the Wi-Fi network.

### Level 2

Notes:

- Get a smart speaker of your choice.
  - Examples: Amazon Echo, Google Home, etc.
- Help the person locate and install the app recommended for your smart speaker.
- Help the person set up a smart speaker.
- Help the person set a voice reminder for that day

Task:

- Install app and set up the smart speaker.
- Set a simple reminder

### Level 3

Notes:

- Get 1 Wi-Fi smart device of your choice that does not require a hub for control.
  - Examples: smart plug, light bulb, lock, thermostat, etc.

- Help the person locate and install the app recommended for your device.
- Help the person set up a device.
- Help the person set up the device to operate using a voice command over the smart speaker.
  - Example: Saying “turn on the light,” turns on the light.

Task:

- Install the app and set up the device.
- Set up the device to operate using a voice command.

#### Level 4

Notes:

- Get a second Wi-Fi smart device of your choice that does not require a hub for control.
  - Examples: smart plug, light bulb, lock, thermostat, etc.
- Help the person locate and install the apps recommended for your device.
- Help the person set up the devices.
- Help the person set up a sequence of devices to perform activities using one command over the smart speaker.
  - Example: Saying “Go to bed,” turns off light and locks the door.

Task:

- Install app and set up the devices.
- Set up a sequence of devices to perform multiple activities using one voice command.



## Word Guessing

### Level 1

#### Notes:

- Think of a 3 or 4 letter word and use lines that equal the number of letters in the word.
  - Example, "Cat" is \_ \_ \_
  - Think of longer words and common phrases as the person progresses.
- Give the person a set number of chances to guess the letters in the word with the goal of adding letters to the word until the word is guessed.
  - Allow as many guesses as necessary to succeed when first starting.
  - After there is consistent success, set a limit of letter guesses.
    - Example: allow no more than 20 guesses for a 3-letter word.
    - You can add 5 guesses with each letter added to the word.
      - Example: allow no more than 25 guesses for a 4-letter word, 30 guesses for a 5-letter word, etc.
- Write correctly guessed letters in the proper space for spelling out the word.
- Ask the person to guess letters that spell the word before the guess limit is reached.
  - Give the word definition as a hint if needed.
  - You and the person can take turns thinking of a word and guessing the word.

#### Task:

- Guess letters to spell out the word or phrase.

### Level 2

#### Notes:

- Repeat Level 1 with the following exception:
  - Do not provide the definition.
  - Write down guessed letters.

#### Task:

- Guess letters to spell out the word or phrase.

### Level 3

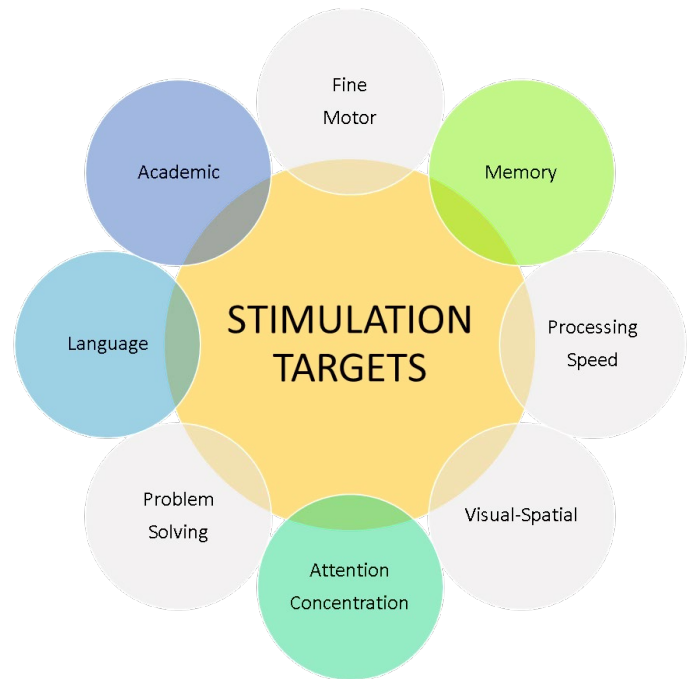
#### Notes:

- Repeat Level 2 without writing down guessed letters.

#### Task:

- Guess letters to spell out the word or phrase.

### Level 4



Notes:

- Repeat Levels 1, 2, and 3 with an added player.
  - Remind the person the rules of the game are the same except that each player takes a turn guessing a letter and the word.
  - Add players as the person progresses.

Task:

- Guess letters to spell out the word or phrase.

## Word Search

### Level 1

#### Notes:

- Write down 5-10 four letter strings with a three-letter word imbedded.
  - Examples PDOG, CATR, etc.
- Ask the person to circle or underline the word.
- Add five and six letter strings with four or five letter words imbedded as the person improves.

#### Task:

- Circle or underline the imbedded word.

### Level 2

#### Notes:

- Create larger blocks of hidden word puzzles or buy hidden word puzzle books.
- Ask the person to complete the hidden word puzzle.

#### Task:

- Complete the hidden word puzzle.

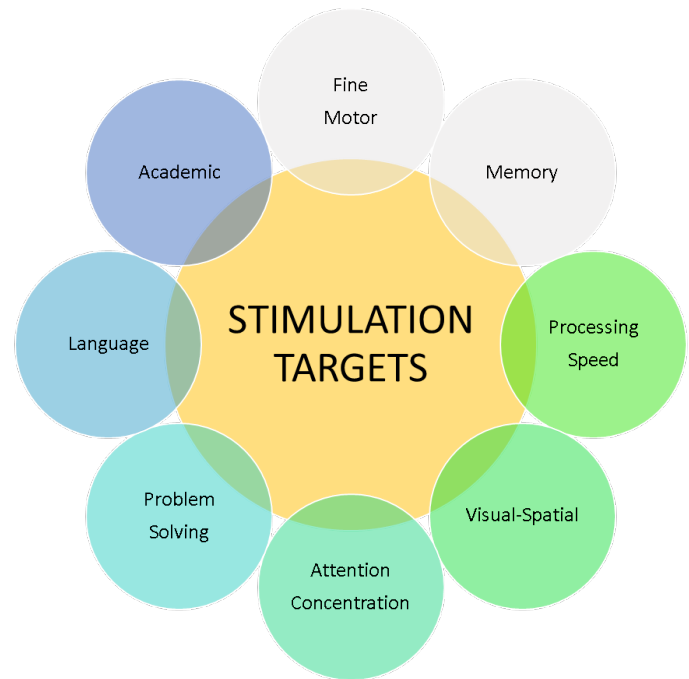
### Level 3

#### Notes:

- Write 6 letters on 6 small squares of paper and arranging them randomly in a 3x3 letter grid or buy the game of Boggle.
  - Turn all the letters to face the person.
  - Add more letters on squares of paper to make 4x4, 5x5, etc. grids as the person improves.
- Ask the person to write down as many words as possible using the letters found on the grid.
  - Allow about 3-4 minutes to find words, but be flexible on the time allowed if needed.
  - You may also slowly begin to reduce the time needed as the person progresses.

#### Task:

- Write down as many words as you can find combining the letters on the grid.



## Written Language or Expression

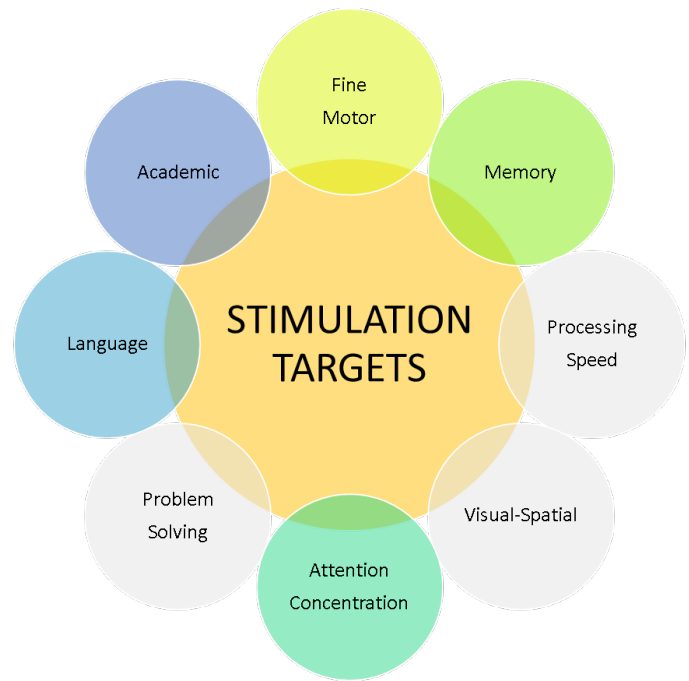
### Level 1

#### Notes:

- Ask the person trace shapes, numbers and letters.
  - Examples: ○, 1982, R, etc.
- Ask the person to write down what was traced.
  - Examples: a circle, a year, the letter R, etc.
- From tracing, move to copying followed by writing, dictation, and spontaneous writing as the person improves.

#### Task:

- Trace, copy, write, dictate, and write as asked.



### Level 2

#### Note:

- Show the person common household objects.
- Ask the person to write down what the object is.

#### Task:

- Write down what the object is.

### Level 3

#### Note:

- Show the person common household objects.
- Ask the person to write down words about what the object does and looks like.
- Ask the person to write down a phrase or sentence about the object.

#### Task:

- Write down what the object does and looks like.
- Write down phrase or sentence about the object.

### Level 4

#### Note:

- Ask the person to write brief emails, texts, or letters.
  - Example: "Thank you" notes.

#### Task:

- Write brief emails, texts, or letters.

### Level 5

#### Note:

- Show the person a scene from a magazine.
- Ask the person to write a paragraph describing the scene.

Task:

- Write a paragraph describing a scene from a magazine.

## Auditory Attention

### Level 1

#### Notes:

- Write a series of random numbers, include multiple uses of the number 2.
  - Example: 4, 5, 2, 6, 2, 9, 3, 2, 4, 2, 8, 8, 2...
- Read a string of numbers aloud, pausing for 2 seconds between numbers.
- Ask to write down the number 2 every time it is said.
- Score how many correct responses are made.
- Use different numbers if preferred.

#### Task:

- Note each time you hear the number 2.

### Level 2

#### Notes:

- Write a series of random letters, include multiple uses of the letter K.
  - Example: D, E, K, L, K, R, R, K, T, G, K...
- Read a string of letters aloud, pausing for 2 seconds between letters.
- Ask to raise hand every time the letter K it is said.
- Score how many correct responses are made.
- Use different letters if preferred.

#### Task:

- Raise hand each time you hear the letter K.

### Level 3

#### Notes:

- Write a series of letters, include multiple uses of the letters R and K.
  - Example: D, E, K, L, K, R, R, K, T, G, K...
- Read a string of letters aloud, pausing for 2 seconds between letters.
- Ask to raise finger every time the letters R and K are said.
- Score how many correct responses are made.
- Use different letters if preferred.

#### Task:

- Raise finger each time you hear the letters R and K.

### Level 4

#### Notes:

- Write a series of numbers, include multiple uses of the numbers 2 and 6 in order.
  - Example: 4, 5, 2, 6, 2, 9, 3, 2, 6, 2, 8, 8, 2...
- Read a string of numbers aloud, pausing for 2 seconds between numbers.



- Ask to raise a finger every time the numbers 2 and 6 are said in order, that is in sequence.
- Score how many correct responses are made.
- Use different number sequences if preferred.

Task:

- Raise your finger each time you hear the numbers 2 and 6 in order.

#### Level 5

Notes:

- Read a paragraph aloud.
- Choose a common word, and ask the person to raise a finger every time the word is said.
  - Example: raise your finger each time you hear the word, “the.”
- Score how many correct responses are made.

Task:

- Raise finger each time you hear the word.

#### Level 6

Notes:

- Ask the person to read a paragraph in print.
- Choose a common word, and ask the person to underline the word each time it is read.
  - Example: underline every “the” that you read in the paragraph.
- Score how many correct responses are made.

Task:

- Underline the word when you read it.

#### Level 7

Notes:

- Create two sentences with a theme
  - Example: “Cats are a very popular pet because they are quiet. Dogs tend to be friendly pets and like being petted.”
- Ask the person to identify the theme.
  - The theme is “pets” in the above example.

Task:

- Name the theme for the two sentences.

#### Level 8

Notes:

- Watch an educational television program.
- Notes the major themes in the program.

Task:

- Discuss the themes after the show.

## Time Sense

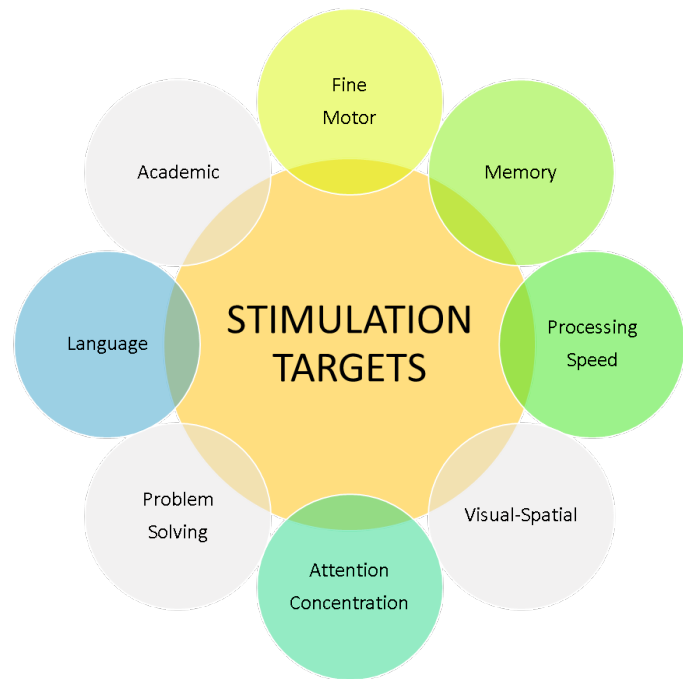
### Level 1

#### Notes:

- Give the person a stopwatch. A wristwatch or smartphone on stopwatch mode is also an option.
- Ask the person to look at the stopwatch, start it, and stop it when 10 seconds have passed.
  - The aim is to stop it within two seconds of the target time.
- Repeat with different target times up to one minute.

#### Task:

- Start the stopwatch and stop it at the given time.



### Level 2

#### Notes:

- Give the person a stopwatch. A wristwatch or smartphone on stopwatch mode is also an option.
- Ask the person to look at the stopwatch and start it.
- After the stopwatch starts, ask the person to stop it when a set time has passed.
  - Example: “look at your stopwatch, start it (wait until it is started), now stop it when 20 seconds have passed.”
  - The aim is to stop it within two seconds of the target time.
- Repeat with different target times between 8 and 60 seconds.

#### Task:

- Start the stopwatch and stop it at the given time.

### Level 3

#### Notes:

- Give the person a stopwatch. A wristwatch or smartphone on stopwatch mode is also an option.
- Ask the person to *not* look at the stopwatch, start it, and stop it when the person *estimates* that a set time has passed.
  - Example: “without looking at your stopwatch, start it, and stop it when you think 10 seconds have passed.”
  - The aim is to stop it within a few seconds of the target time.
- Repeat with different target times between 20 seconds and 2 minutes.
  - Be mindful that longer target times are harder to estimate, so a wider margin for stopping the stopwatch may be expected.
    - Example: stopping the stopwatch within 20-30 seconds of a 2-minute target time is a reasonable aim.

#### Task:

- Start the stopwatch and stop it at the given time.



#### Level 4

##### Notes:

- Give the person a stopwatch. A wristwatch or smartphone on stopwatch mode is also an option.
- Ask the person to *not* look at the stopwatch, start it, and stop it when the person *estimates* that a set time has passed.
  - Example: “without looking at your stopwatch, start it, and stop it when you think 20 seconds have passed.”
  - The aim is to stop it within a few seconds of the target time.
- While the time is passing, talk to the person or ask the person questions.
- Repeat with different target times between 20 seconds and 2 minutes.
  - Be mindful that longer target times are harder to estimate, so a wider margin for stopping the stopwatch may be expected.
    - Example: stopping the stopwatch within 20-30 seconds of a 2-minute target time is a reasonable aim.

##### Task:

- Start the stopwatch and stop it at the given time.

## Crossword Puzzles

### Level 1

#### Notes:

- Use books or “apps” to find a crossword puzzle to complete. It can be done in writing, aloud, with assistance, or independently.
  - Help can be given by partially filling in the blanks or allowing multiple choice responses.
- Start with simple crossword puzzles and move to more challenging puzzles as the person is capable.

#### Task:

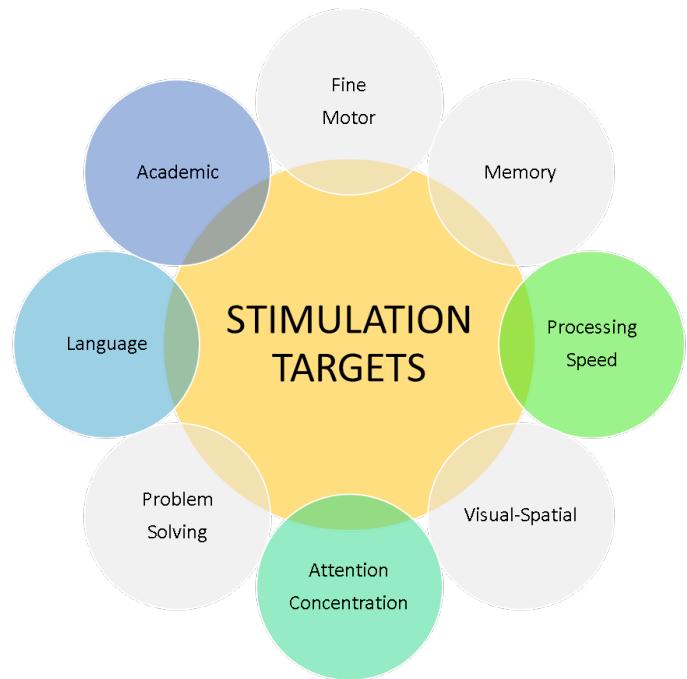
- Complete the crossword puzzle.

### Level 2

- Repeat Level 1 except that you set time limits.
  - Allow about 10 minutes to complete the puzzle, but be flexible on the time allowed if needed.
  - You may also slowly begin to reduce the time needed as the person progresses.

#### Task:

- Complete the crossword puzzle in the given time.



## Right-Left Orientation

### Level 1

#### Notes:

- Ask the person to point to different body parts.
  - Examples: point to your right arm. Point to your left arm. Touch your right ear.
  - Provide help if needed.

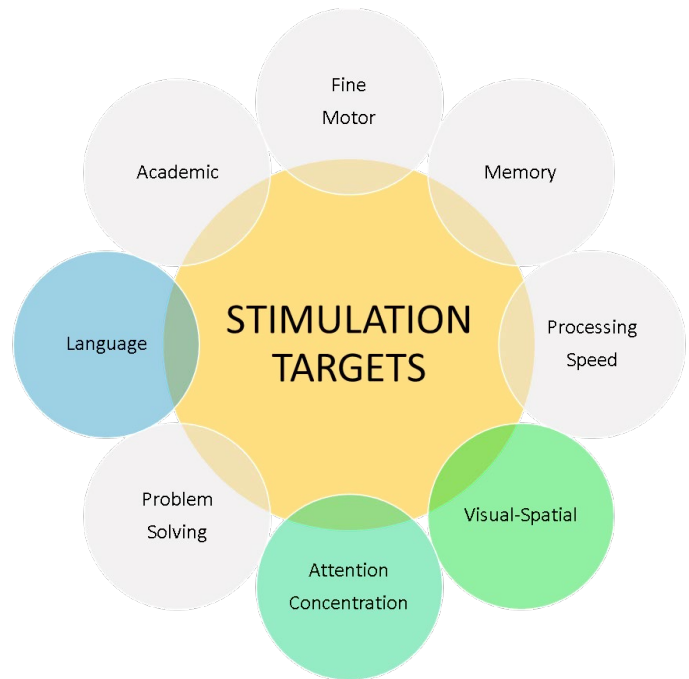
#### Task:

- Point to or touch the body part.

### Level 2

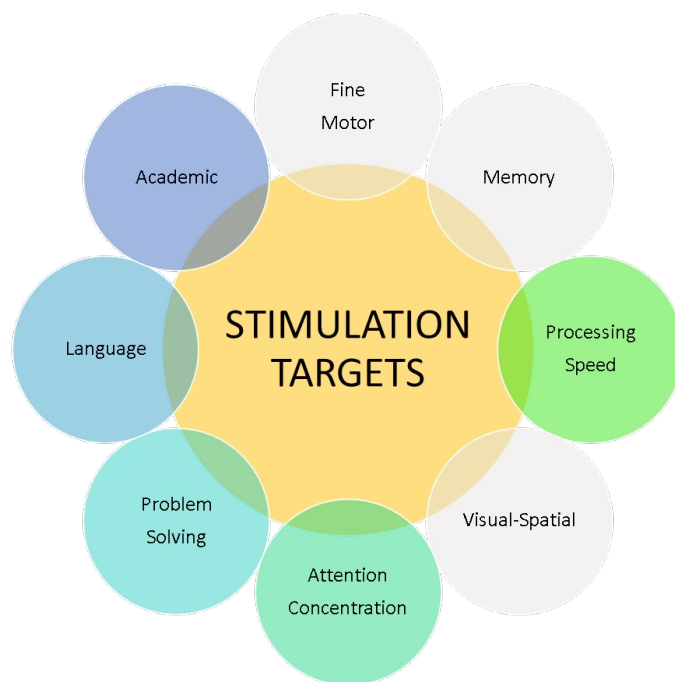
#### Notes:

- Draw a picture of a person or use a picture of a person standing up face forward.
- Hold the picture in front of the person and ask the person to point out the pictured person's right and left features, which are opposite to the person's right and left.
  - If there is some confusion, flip the drawing or picture around facing away, which makes the left and right sides the same. Flip back and forth as often if needed.
- Stand in front of the person and ask the person to point out your right and left body parts, which are opposite to the person's right and left.
  - If there is some confusion, turn around facing the same direction as the person, which makes the left and right sides the same. Flip back and forth as often as needed.
  - You can make it more challenging by crossing your legs or arms.



## Mathematical Reasoning

- The goals of this activity are for the person to become more accurate in solving problems and solve simple problems quicker over time.
- Move onto a higher level when the person is consistently successful with the lower level.



### Level 1

Notes:

- Create a worksheet of simple math problems.
  - Avoid “carrying” or “borrowing” across columns.
- Create simple multiplication and division problems as the person progresses.

■ Examples:

$$\begin{array}{rclcl} 7 & + & 2 & = \\ 2 & \times & 3 & = \\ 8 & / & 2 & = \end{array}$$

- Ask the person to solve the problems.

Task:

- Solve the math problems.

### Level 2

Notes:

- Create a worksheet of simple math problems.
  - Include problems that have “carrying” or “borrowing” numbers across columns.

■ Example:

$$\begin{array}{r} 12 \\ + 8 \\ \hline = \end{array}$$

- Create similar multiplication and division problems as the person progresses.
- Ask the person to solve the problems.

Task:

- Solve the math problems.

### Level 3

Notes:

- Create a worksheet of math problems, including a page of addition problems, a page of subtraction problems, a page of multiplication problems, and a page of division problems.
  - Create some that include decimal points.

- o Create word problems.
  - o Create time and money problems.
- Ask the person to solve the math problems one page at a time.

Task:

- Solve the math problems.

#### Level 4

Notes:

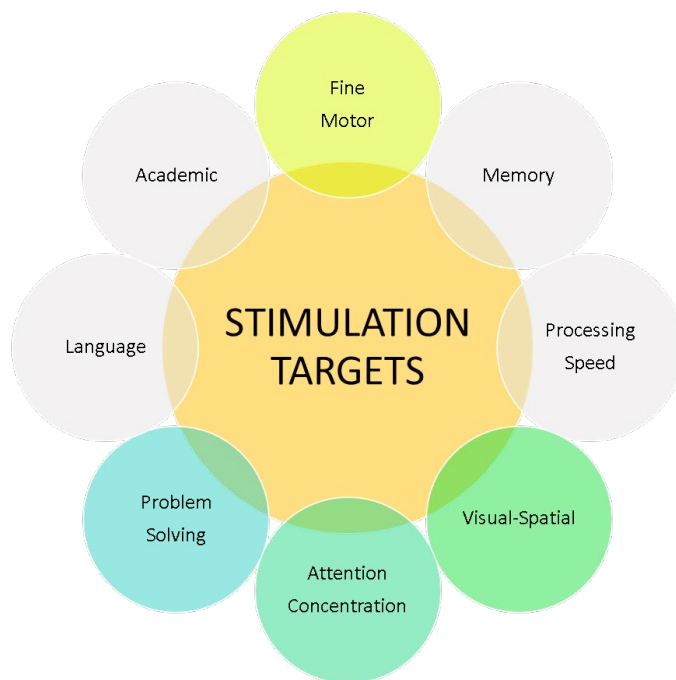
- Create a worksheet of math problems similar to Level 3 except that you offer a mix of addition, subtraction, multiplication, and division problems.
- Create multiple worksheets as the person progresses.
- Ask the person to solve the math problems.

Task:

- Solve the math problems.

## Puzzles

- Puzzles can be purchased, handmade, or downloaded to be completed on a computer, tablet or smartphone.
- Create handmade puzzles by taking a picture from a magazine and cutting it into different shaped pieces.
  - You can paste the picture to paper before cutting it into pieces to make the puzzle pieces stiffer and easier to manage if needed.
  - Keep a second copy of the picture intact, or take a photograph of the picture on your smartphone.



### Level 1

#### Notes:

- Start with a small puzzle, maybe 10-15 pieces.
- Increase the number of puzzle pieces as the person progresses.
  - Examples: 10, 25, 50, 100, 250 and above 500 pieces.
- Puzzles can be put together by the person alone or by taking turns placing pieces of the puzzle in place as a 1-on-1 activity or group/family activity.
- Work with the person on strategies.
  - Examples: Separating out all border pieces, pieces of similar color, oddly shaped pieces, etc.
- Use the picture of the finished puzzle as a guide to adding puzzle pieces.

#### Tasks:

- Complete the puzzle.

## Recall of Stories and Events

- Internet access is usually available at the local library if not available at home.

### Level 1

#### Notes:

- Read aloud or have the person read aloud to you a 2 to 3 sentence paragraph from a magazine or online source of interest to the person.
- Ask the person questions about the paragraph.
- If tolerated, repeat the activity 3 or 4 times with different 2-sentence paragraphs, but give 1 to 2 minutes of break time between each reading.

#### Task:

- Answer questions about material.

### Level 2

#### Notes:

- Read aloud or have the person read aloud to you a 5-sentence paragraph (½ to 1 page stories) from a magazine or online source of interest to the person.
- Ask the person multiple choice, yes/no, or fill-in-the-blank questions about the paragraph.

#### Task:

- Answer questions about the material.

### Level 3

#### Notes:

- Set a daily schedule for reading a book, magazines or online sources of interests to the person.
- Ask the person daily what they have read.
  - Ask more direct questions if the person is having trouble with the answering.
    - Examples: “Who was in the story?” and “What happened to the person in the story?”

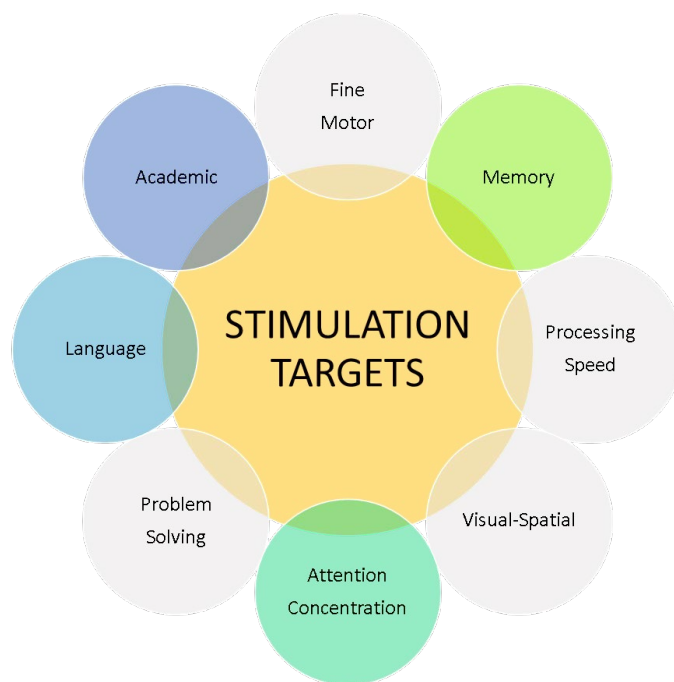
#### Task:

- Answer questions about the material.

### Level 4

#### Notes:

- Have the person select a daily online news source, TV news show, news podcast or radio news program of interest.
- Pick out 1 major news event from the material, and periodically ask the person about that news event throughout the day.
  - Ask more direct questions if the person is having trouble with the answering.



- Examples: “What was the story about?”, “Who was the story about?”, “When and where did the events occur?”
- Examples: “The woman in the news story was trapped in a \_\_\_\_\_” or “The score of the game was \_\_\_\_\_.”
- Ask the person to answer questions about information at different time intervals.
  - Examples: immediately after receiving the information, 10 minutes after, 15 minutes, 30 minutes, and later that day.

Task:

- Answer questions.

#### Level 5

Notes:

- Ask the person to write down some questions about the top news stories for that week.
- Go to the local library together, and suggest that the person take the questions and find answers either from other news sources or the librarian.

Task:

- Find answers to questions.

#### Level 6

Notes:

- Ask the person to generate his or her own questions about news events, and, once finished, ask the person to provide the answers as well.

Task:

- Provide questions and answers to a news event.



## Sequencing Activities

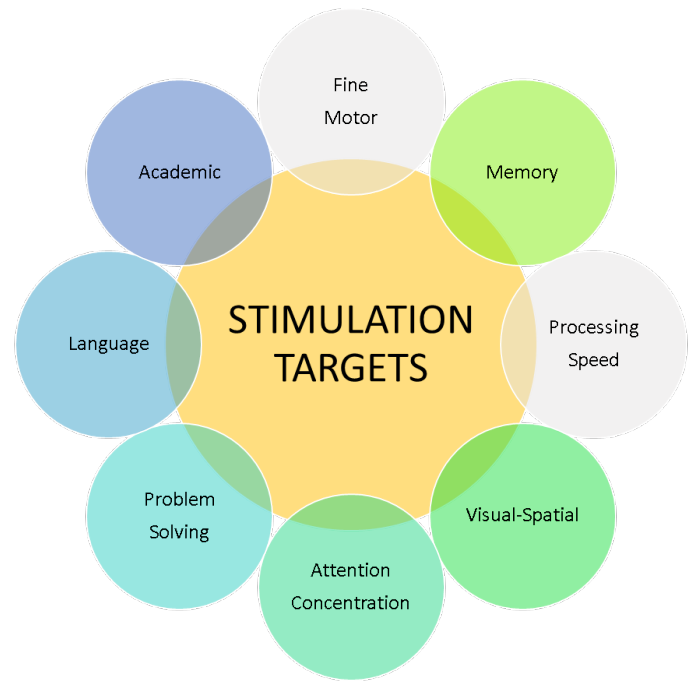
### Level 1

#### Notes:

- Choose a task listed in Daily Activities.
- Ask for the chosen task to be broken down into simple steps.
  - Example: “Tell me the steps to having a bowl of cereal.”
- The goal is to get a verbal, step-by-step response of what is to be done for that task. The response should be in some form of a logical order.
  - Example:
    1. Get a bowl from the cabinet
    2. Pour cereal into the bowl.
    3. Pour milk over the cereal.
    4. Get a spoon
- Physically do each step and describe them if there is any initial difficulty.
- Discuss what was done in a step-wise fashion after the activity is done.
- Ask for a verbal, step-by-step response for daily tasks with an increasing number of steps as the person is capable.

#### Tasks:

- Provide a verbal, step-by-step process to daily activities.



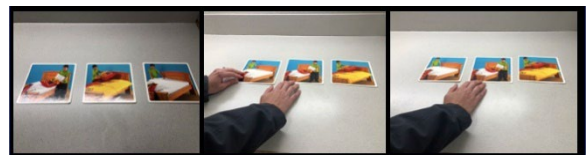
### Level 2

#### Notes:

- Draw or cut out 3 panels with pictures that make up a 3-scene single story line.
  - Example: 3 panel comic strip (or a comic with more than 3 scenes, but cut into 3 pieces).
- Lay out the panels on a table face up in the correct story order.
- Allow a few seconds for the panels to be viewed in the correct order.
- Shuffle the panels out of order.
- Add panels to the story line and extend the length of time to view the panels in correct order as the person progresses.
- 

#### Tasks:

- Arrange the panels into the proper order.
- Describe the panels and tell the story.



### Level 3

#### Notes:

- Shuffle the story line panels out of order without showing the correct order beforehand.

#### Tasks:

- Arrange the panels into the proper order.
- Describe the panels and tell the story.

## Shell Game

- This game can be done with materials at home or with games that can be done on a computer, tablet, or smartphone.
- Use matching glasses, cups, or bowls for this activity.

### Level 1

#### Notes:

- Set 2 identical clear glasses upside down on a table.
- Place a marble or other small object underneath one of the glasses, with everything easily seen.
- Ask the person to point to the glass with the marble.
- When successfully pointed out, in the person's vision move the glasses around and then again ask the person to point to the glass with the marble.
- Repeat several times, varying the number of times you move the glasses.

#### Task:

- Point out the glass with the marble.



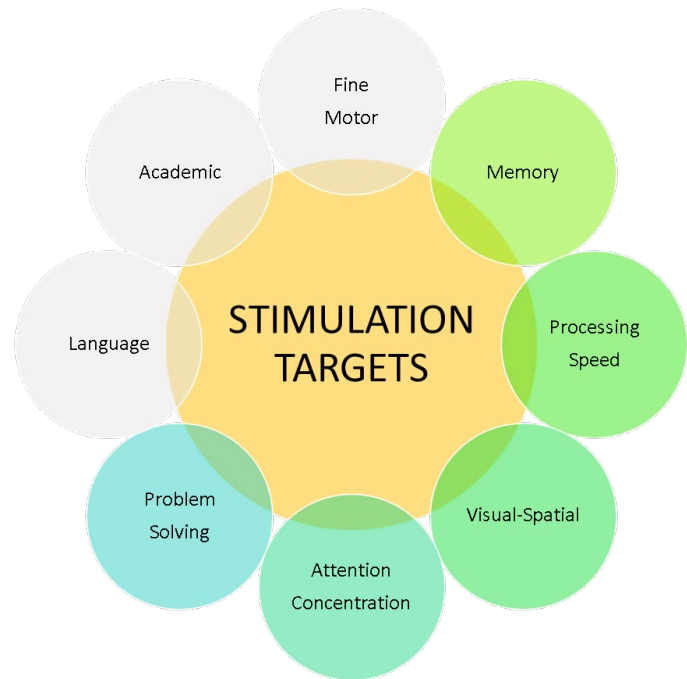
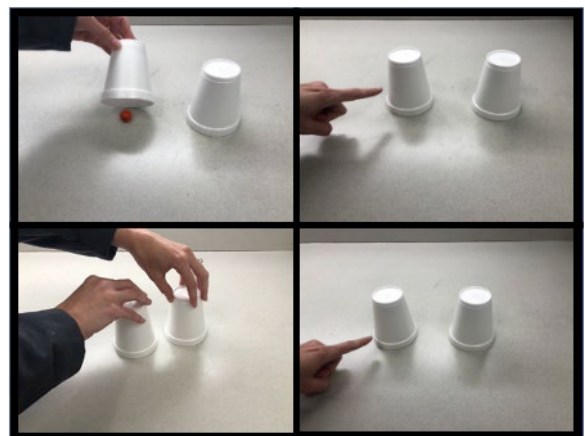
### Level 2

#### Notes:

- Set 2 identical glasses that cannot be seen through upside down on a table.
- In sight of the person, place a marble or other small object underneath one of the glasses.
- Ask the person to point to the glass hiding the object.
- When successfully pointed out, move the glasses around and again ask the person to point to the glass with the marble to be pointed out.
- Repeat several times, slowly increasing the length of time spent moving the glasses.

#### Task:

- Point out the glass with the object.



### Level 3

#### Notes:

- Set 5 identical glasses that cannot be seen through upside down on a table.
- In sight of the person, place a marble or other small object underneath one of the glasses.
- Ask the person to point to the glass hiding the object.
- When successfully pointed out, move the glasses around and again ask the person to point to the glass hiding the object.
- Repeat several times, slowly increasing the length of time spent moving the glasses.

#### Task:

- Point out the glass with the object.

### Level 4

#### Notes:

- Set 5 identical glasses that cannot be seen through upside down on a table.
- In sight of the person, place 2 different color marbles or other small objects underneath 2 separate glasses, with everything easily seen.
- Ask the person to point to the glass hiding a specific colored object.
  - Example: point to the glass with the green marble underneath.
- When successfully pointed out, move the glasses around and again ask the person to point to the glass hiding the object.
- Repeat several times, slowly increasing the length of time spent moving the glasses.

#### Task:

- Point out the glasses with the objects.



### Level 5

#### Notes:

- Set 5 identical glasses that cannot be seen through upside down on a table.
- In sight of the person, place 3 different color marbles or other small objects underneath three separate glasses.
- Ask for the glass with each colored object to be pointed out.
  - Example: point to the glass with the green marble underneath, then point to the red, and then point to the blue.
- When successfully pointed out, move the glasses around and again ask the person to point to the glass with each colored object.
- Repeat several times, slowly increasing the length of time spent moving the glasses.

#### Task:

- Point out the glasses with the objects.

## Sudoku

### Level 1

#### Notes:

- Sudoku puzzles can be purchased or completed on a computer, tablet or smartphone.
  - Help can be given by partially filling in the blanks or allowing multiple choice responses.
- Start with a simple Sudoku and move to more challenging puzzles as the person improves.

#### Task:

- Complete the Sudoku.

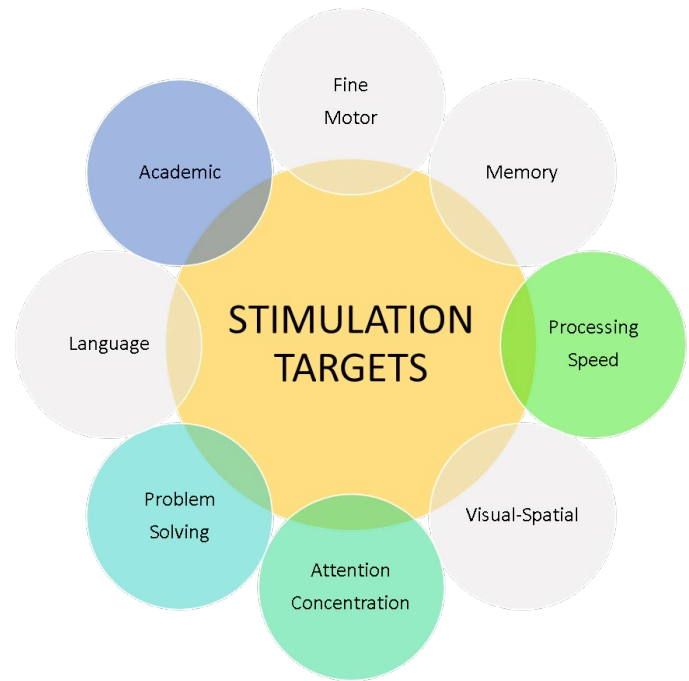
### Level 2

#### Notes:

- Repeat Level 1 except that you set time limits.
  - Allow about 10 minutes to complete the Sudoku words, but be flexible on the time allowed if needed.
  - You may also slowly begin to reduce the time needed as the person progresses.

#### Task:

- Complete the Sudoku in the given time.



## Map Use

### Note:

- The activities below can be done with a paper map or by using a map on a smartphone, tablet, or computer.
  - A paper map provides a higher degree of challenge and may be preferred over smart devices by some people.

### Level 1

#### Notes:

- Ask the person to find familiar places on the map.
  - Examples: home, school, work, etc.

#### Task:

- Find the location on the map.

### Level 2

#### Note:

- Ask the person to map a trip to an unfamiliar location.
  - Example – bank, grocery store, doctor's office, etc.

#### Task:

- Find the location on the map.

### Level 3

#### Note:

- Same as Level 2 except that you ask the person to map a trip with multiple stops along the way.

#### Task:

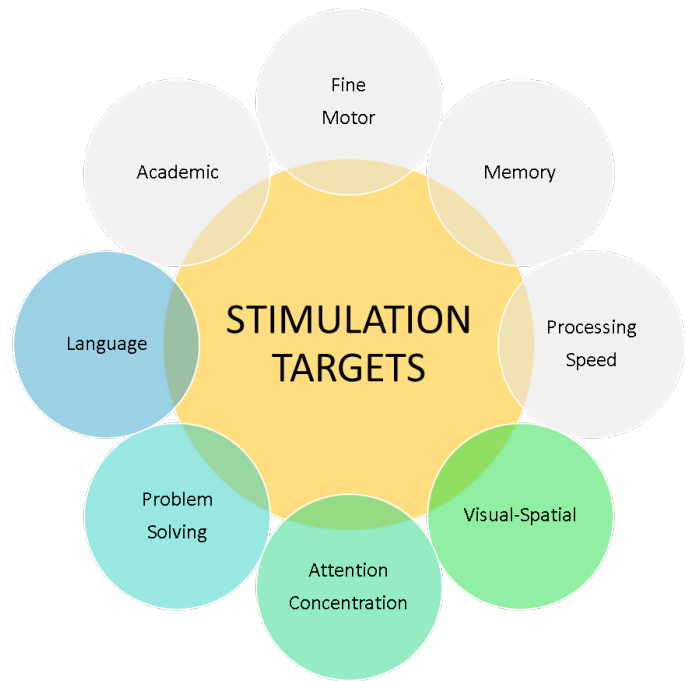
- Find the multiple locations on the map.

### Level 4

- Ask the person to plan a road trip, like a vacation, including the roads to be taken and stops to be made along the way.
  - Make the activity more challenging by asking the person to figure the total mileage, the time it will take to travel to different locations along the way, and the cost of the trip.

#### Task:

- Plan a road trip.
- Figure the cost of the trip if asked.



## Sense of Direction

Note:

- These types of activities can be done while out in the community.

### Level 1

Notes:

- Go to any location where your car is parked in a lot or deck while you are in a building.
  - Examples: restaurant, grocery, etc.
- Ask the person to find the car when you are leaving the building.

Task:

- Find the car.

### Level 2

Notes:

- Same as Level 1 except that you ask the person to direct the drive to and from a familiar location that you frequently visit.
  - Examples: “what turn do I take next going to \_\_\_\_\_?” or “When is our next turn?”

Task:

- Navigate your way.

### Level 3

Notes:

- Go to any larger location where there are different areas/sections.
  - Examples: library, grocery, etc.
- Ask the person to find different areas.
  - Examples: “find the books on adventure.” or “find the frozen foods.”

Task:

- Find the area.

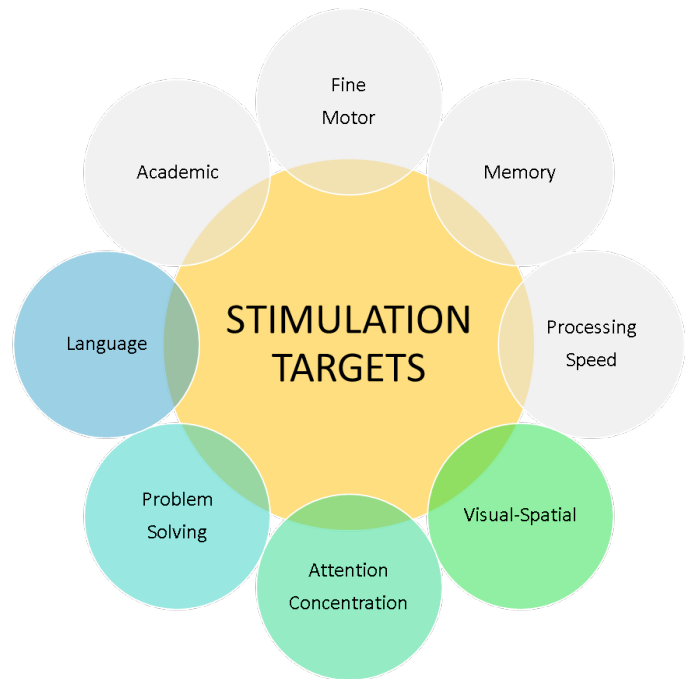
### Level 4

Notes:

- Same as Level 2 except that you ask the person to direct the drive home from an unfamiliar location.
  - Examples: “what turn do I take next going home?” or “When is our next turn?”

Task:

- Navigate your way home.



## Appendix A

This Appendix offers additional suggestions for a person with specific conditions related to brain disorders.

**Apraxia** - difficulty with coordination (planning) and doing tasks or movements needed Fine Motor activities.

Notes:

- Follow steps to practice gross-motor activities with the person.
  1. Put your hands up in front of you and ask the person to put his/her palms on yours.
  2. Move your hands so that you are both draw shapes, numbers and letters of the alphabet in the air.
  3. Once the person is able to do this, ask the person to move his/her hands slightly back from your hands but continue to mirror your movements.
  4. Once successful, ask the person to lead the movements and you mirror the movements of the person.
- Repeat steps mirroring finger movements.
- Use a wrist weight when appropriate.
- Put your hand over the person's hand to act as a guide to help if needed.

**Vision Impairment** - Some of the most common types of vision problems include:

- Blurred vision in one or both eyes, especially with seeing up close.
- Double vision in one or both eyes.
- Decreased peripheral vision in one or both eyes.

Notes:

- Emphasize language skills development.
- May use verbal directions when working on guidebook activities.
- Utilize recordings of stories, paragraphs, sentences and news articles when reading is not an option for memory recall, language and/or reasoning skills tasks.
- Use bold, colorful markers in any hand-written tasks.
- Use accessibility features on computers and smart devices. These might include screen readers and display visibility enhancements.
- Naming Tasks: Suggestions for identifying objects.
- Ask the person to name objects that you give him/her to hold in the hand. Let the person hold the object and feel it. Then ask for the object to be named.
  - Offer hints as needed.
- Inferential Naming: Describe objects with progressive cues/clues.
  - Example: if the object is a tree, give the following clues one at a time: It is a plant. It usually grows outside. It is tall and shady. It is a \_\_\_\_\_.
- Responsive Naming: Ask questions about objects and their functions.
  - Example: "What do you write with?" or "What do we wash our clothes in?"

- Synonyms and Antonyms: Say a word, and ask the person to provide another word that has the same meaning (synonym). You can also ask the person to provide a word with the opposite meaning (antonym).
- Example: a synonym for the word LITTLE is PUNY; an antonym for the word LITTLE is BIG.

**Hearing impairment** – the most common hearing impairment is a loss of hearing higher pitch frequencies in one or both ears, and a loss in lower pitch frequencies are less common.

Notes:

- Using a lower pitch voice is much more effective than speaking loudly.
- Speak in the direction of the person's "best ear".
- Make sure the person can see your face when speaking.
- Use of a Personal Listening Device may be helpful.
- Turn off other auditory distracters such as televisions, radios, stereos, etc. when the person is trying to concentrate or communicate.



## Appendix B

Playing games is fun! In addition, games have the added bonus of being a great way to stimulate cognitive skills.

**Apps:** Search for apps to play on your smartphone or tablet. Here are a few examples.

- Fit Brains – Fit Brains Trainer is a game of intelligence and mental agility aimed, in pure Brain Training style, at stimulating your brain's performance with tests ranging from simple deduction to visual perception.
- CogniFit – CogniFit offers engaging games to evaluate and train memory, concentration, attention, mental arithmetic, executive functions, reasoning, planning, mental agility, coordination, and more.
- Memory Match Game – Match the same pair of images and test & improve your memory with this game. Beat the opponents in multiplayer game mode. Learn to memorize.

Below is a list of traditional games that have long been commercially available. With each game, there is a letter code reflecting the cognitive stimulation targets of that game. You might be able to use this to select games to focus on particular thinking skills. Keep in mind, however, that many games require a combination of skills, so you really cannot go wrong in selecting any game! The following list is a sampling and is not complete.

Academics (A)	Memory (M)
Attention/Concentration (AC)	Problem Solving (PS)
Fine Motor (FM)	Speed of Processing (SP)
Language (L)	Visual-Spatial (VS)

Name of Game	FM	AC	M	R	VS	L	SP	A
Backgammon		X		X	X			
Battleship	X	X	X	X	X			
Bingo	X	X			X			
Boggle		X			X	X	X	X
Checkers	X	X		X	X			
Chess	X	X	X	X	X			
Chinese Checkers	X	X		X	X			
Clue		X	X	X	X			
Connect Four	X	X		X	X			
Guess Who			X	X				
Jenga	X	X			X			
Life		X				X		X
Mastermind	X	X		X				
Memory Game		X	X		X			
Monopoly		X		X				X
Outburst		X				X	X	
Password		X		X		X	X	X

Perfection	X	X			X		
Pictionary	X	X		X	X	X	X
Racko	X	X		X			
Risk	X	X	X	X	X		
Scattergories		X	X	X		X	X
Scrabble	X	X		X	X	X	X
Sorry	X	X		X			
Stock Market		X	X	X			X
Stratego	X	X	X	X	X		
Tri Bond		X	X	X		X	X
Tri-Ominos	X	X		X	X		
Trivial Pursuit			X	X		X	X
Upwords	X	X		X	X	X	X
Yahtzee	X	X		X			X