

Bedside Cognitive Assessment Schedule

Examinee's Name:
Date of Birth:
Education in years:
Handedness:
Examiner's Name:

Gender:
Hospital No:
Occupation:
Date of Testing:

Tests to be chosen keeping in mind the patients educational background; Not all tests under a sub-heading may be needed in each patient.

Orientation:

Person		Day	
Place		Month	
Time of day		Year	
Day of week			
			___/7

Attention

(Begin with most difficult and skip to next section if pt is able to do correctly most difficult level, go to lower levels if low education effect or not able to perform)

Digit Span:

Read each series of numbers out loud, at a speed of one word/second.

Forward:

Ask the examinee to repeat the series IN ORDER.		
Example series	Series given to pt (repeat a level on mistake to confirm ceiling)	Response
5-1		
4-9-3		
3-8-1-4		
6-2-9-7-2		
7-1-5-2-8-6		
4-7-3-9-1-2-8		
		Score (N = 6 +/- 1): _____

Backward:

Ask the examinee to repeat the series in the REVERSE ORDER.		
Example series	Series given to pt (repeat a level on mistake to confirm ceiling)	Response
3-8		
5-2-6		
1-7-9-5		
4-8-5-2-7		
8-3-1-9-6-4		
8-1-2-9-3-6-5		
		Score (N = 2 less than F): _____

Serial Subtraction:

"I would like you to subtract the number seven from one hundred, then seven from that number and so on until I ask you to stop." (May repeat instructions to clarify the task and offer initial prompts such as "In your head, subtract seven from one hundred." When answers 93, say "Now subtract seven from 93 and keep going.") If able to get 93, allow patient to continue task without prompt or comment, except such general encouragement as "keep going" or "just do your best". If the patient is unable to complete serial sevens to 65, then serial threes from thirty are next attempted. If the patient is unable to perform serial threes, then simple counting backwards from twenty by ones is next attempted.

Score: Number of correct serial subtractions; record actual responses.

Response	100-7	30-3 (optional)	20-1 (optional)
1 – 93			
2 – 86			
3 – 79			
4 – 72			
5 – 65			
Score	____/5	____/5	____/5

Word in reverse (optional to SS, if having poor calculation abilities due to low education)

"I would like you to spell "World" or "Ka r m sa d"() (if Gujarati speaking) now, like the whole world." If able to spell forward, say: "Now can you spell it backwards?" score one point for each letter given in correct order. For example, "D-R-L-O-W" / "D M SA R KA" would be worth three points. Record the attempt.

	English					Gujarati				
Correct	D	L	R	O	W					
Pt resp.										
Score	___/5									

Months backwards:

"I'd like you now to list the months of the year backwards, starting with the last month." (May repeat instructions to clarify the task and offer initial prompts such as "Begin with December..." "What month comes before December? Now keep going backwards through the year.")

Corr.	Dec	Nov	Oct	Sept	Aug	Jul	Jun	May	Apr	Mar	Feb	Jan	Score
Resp.													

Scoring: 2 = no errors, 1 = ≤ 2 errors, 0 = > 2 errors.

Score: ___/2

Days of the week backwards (If does not know the months, due to low education effect):

"I'd like you now to list the days of the week backwards, starting with the Sunday" (May repeat instructions to clarify the task and offer initial prompts such as "Begin with Sunday..." "What month comes before Sunday? Now keep going backwards through the week.")

Corr.	Sun	Sat	Fri	Thu	Wed	Tue	Mon
Resp.							

Scoring: 2 = no errors, 1 = ≤ 2 errors, 0 = > 2 errors.

Score: ___/2

Perseveration

Copying of changing patterns:

Point to the end of the alternate sequence.

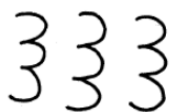
"Starting here continue with the same design until you reach the end of the page."



Score: ___/2

Point to the end of the 3 multiple loops and say to the patient.

"Draw the same design starting here to the end of the page."



Score: ___ / 2

Scoring: 2 = completely correct sequence, 1 = one omission or error, 0 = more than one error or omission

Repeat number letter combination: “Can you please count the letters of the alphabet for me like A1, B2, C3, D4...”

Response:

Scoring: demonstrated / did not demonstrate perseveration errors ____/ 1

Tapping a letter [Verbal 'A']: “I am going to read you a long series of letters. Whenever you hear the letter A, indicate by tapping the desk”

F B A C M N A A J K L B A F A K D E A A A J A M O F A A B	Number of correct responses	___/10
	Number of extra taps	
Gujarati:		
An error = a tap on an error is a tap on a wrong letter or a failure to tap on letter A Score (No points if >= 2 errors): ____/1 (from MoCA)		

Memory – Immediate (Both verbal and visual memory should be tested)

3 Word List: “I am going to read a list of words and I’d like you to repeat the list after me.” (from CONCOG)

Tick the 3 words chosen	Black	House	Mango	Ship
Or note here the 3 words given to the patient				
1 st Trial				
2 nd				
3 rd				
4 th				
5 th				

Score: ____/3

Brief paired associate test: “I’m going to teach you 3 words.. please listen carefully, whenever I say ‘king’ you are supposed to say ‘queen’, whenever I say ‘hand’ you are supposed to say ‘foot’ and whenever I say ‘east’ you are supposed to say ‘west’.” Repeat in different order till patient has learnt.

Scoring: any error is considered abnormal.

King	
Hand	
East	

Score: ____/1

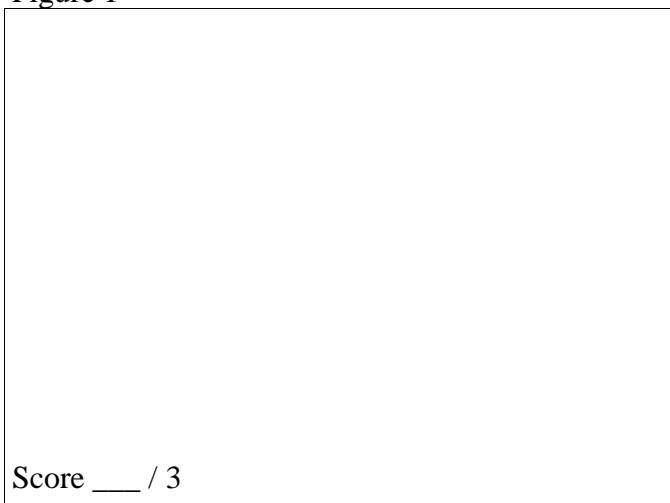
Name and Address: (from ACE-R)

“I’m going to read out a name and address and I’d like you to repeat it after me. We will do these 3 times so you’ll have a chance to learn it. I’ll ask you about it later.” Record examinees responses verbatim in the table below.

	1 st Trial	2 nd Trial	3 rd Trail
Laxman Singh			
59 Mahadev Society			
Maninagar			
Ahmedabad			
Score only the third trial. Score 1 for each correct word/number.			SCORE: ____/7

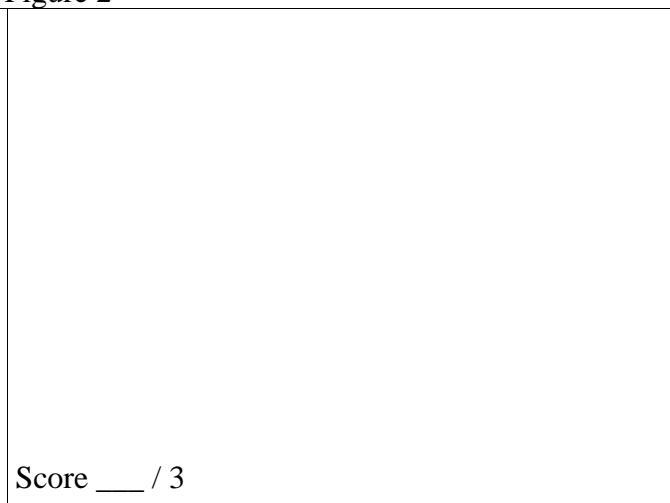
Figure drawing for visual memory: “I’m now going to show you a simple drawing. I want you to look at the drawing carefully so that you can draw what you have seen from memory. Do not start drawing till I tell you to. You will copy a total of 4 drawings.” Hold each design for 5 seconds. After withdrawing the design wait for 5 seconds, then ask the patient to draw the figure. (from Strub and Black)

Figure 1



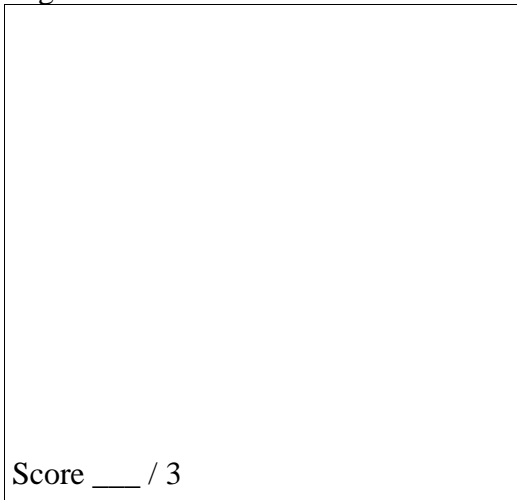
Score ____ / 3

Figure 2



Score ____ / 3

Figure 2



Score ____ / 3

Figure 4



Score ____ / 3

Alternate to the figure drawing test for non-verbal memory: Hide three easily recognizable objects in the patient's vicinity while the patient is observing. Confirm from patient "Where is object X? Where is object Y? Where is object Z?"

Memory – Recent (after 5 minutes) (Both verbal and visual memory should be tested)

Delayed 3-word recall: "Could you please recall the 3 words that I had asked you to remember"

Tick the 3 words chosen	Black	House	Mango	Ship
Or note here the 3 words given to the patient				
Spontaneous recall				
Categorical cue	Red / Black / Blue	School / Hospital / House	Apple / Mango / Banana	Bus / Train / Ship
Phonemic cue				

Score: ___/3 (from CONCOG)

Delayed brief paired associate recall: "I'm going to tell the first word of the combinations that we learnt earlier.. listen carefully and tell me the associated word"

King-Queen	
Hand-Foot	
East-West	

Score: ___/1

Delayed recall of name and address: (from ACE-R)

"Can you please recall the name and address that you had learnt earlier" Record examinees responses verbatim in the table below.

Laxman Singh	_____
59 Mahadev Society	_____
Maninagar	_____
Ahmedabad	_____
Score 1 for each correct word/number. SCORE: ___/7	

The following test should be done if the subject failed to recall one or more items. "Ok, I will give you some hints.. was the name X, Y, Z etc?"

Laxman Sharma		Laxman Singh		Ramesh Patel		Recalled	
25		59		37		Recalled	
Shital Society		Manisha Society		Mahadev Society		Recalled	
Patelnagar		Maninagar		Prakashnagar		Recalled	
Ahmedabad		Surat		Rajkot		Recalled	
						Score	___/5

Figure drawing on recall for visual memory: “Could you please try to draw the 4 figures from memory that you had drawn earlier” (from Strub and Black)

Figure 1

Figure 2

Figure 2

Figure 4

Alternate to the figure drawing test for non-verbal memory: “Can you please point to the places where we hid objects people and name the object hidden there?”

Score: ____ / 3

General impression of ability for delayed visual memory recall:

Memory – Remote

Recall of historical information (Semantic memory)

Color of an elephant	
Name of current Prime Minister	
Number of days in a week	
Tell me if the following people are dead or alive	

Jawaharlal Nehru	
Sridevi	
Score	___/6

Recall of personal verifiable information:

Where were you born?	
Date of birth?	
What school did you go to?	
Date of marriage? / Date of passing examinations? / Name of teacher this year and last year in case of child?	
Last festival celebrated? / Last vacation?	
Score	___/5

Language

Writing: “Write down in one sentence, what is the main problem that brought you here?” OR “Write down a short sentence describing your village / town / family / weather?”

Agraphia if basic language errors in spelling or substitution of letters, syllables or words not due to educational deficits.

Repetition: “Please repeat the following after me” – in routine cases you may straightaway ask the most difficult level

<i>Monosyllabic</i>	
Pen	
Watch	
Tree	
<i>Multi syllabic</i>	
Hospital	
Aeroplane	
<i>Complex</i>	
“That man went to the store”	
“Let’s go out and fly kites”	
“No if and or buts”	

Score: P/F

Fluency: observed during conversation. Alternatively, the patient can be asked to describe the “cookie theft picture” or any other picture. Normal fluency is 50-115 words per minute. A fluent speech flow rapidly and effortlessly. When more than 200 wpm it is considered logorrhea. When less than 50 it is considered non-fluent. Non-fluent speech is sparse, laborious, agrammatic, filled with pauses for word finding, consists predominantly of nouns [telegraph style]. Fluent speech may also be unintelligible [jargon aphasia], or full of abnormal words [paraphasia] or neologisms [self-invented words or phrases]. Schizophrenic neologism has symbolic value, whereas paraphasia neologism is non-symbolic.

Impression: Fluent / Non-fluent

Comprehension:

One step	Point to the fan?	P/F
Yes/No [only if the patient fails on the above step; to differentiate from dyspraxia]	"Just answer yes or no to these questions..." Does Tuesday come before Monday? Is the sky blue? Can dogs fly?	P/F
Two step	Point to the fan and then to the switch?	P/F
Three step*	Take this piece of paper with your right hand, tear it into two and place it back on the desk with your left hand	P/F
Semantic*	Point to the source of illumination in the room?	P/F
Complex syntactic sentence	A tiger was eaten by a lion. Which animal is alive?	P/F
For identifying minor comprehension deficits, the “Marie’s paper test” may be administered	“Here are three papers, a big one, a medium size one and a small one. Take the big piece, crumple it up and throw it on the ground. Give me the middle sized one. Put the smallest one in your pocket.”	P/F

* - Routinely these 2 can be done and skip to next section of no mistake.

Impression: Comprehension intact / impaired

Naming:

High frequency	Low frequency	Response	Correct	
Watch				
	Band			
Shirt				
	Collar			
Forehead				
Cheek				
Lip				
	Chin			
Shoulder				
	Elbow			
	Wrist			
	Knuckles			
			High freq: ___/6	Low freq: ___/6

Alternatively, ACE-R / ACE-III Naming figures can be used to test.

Reading:

- a. Read aloud from a new paper or magazine
 - b. Read "close your eyes" written from a piece of paper and perform
-

Agnosia

Write letter on hand: [Graphesthesia] "Ask patient to put hands on the table palms up. "I'm going to trace some letters on the palm of your hand with the cap of this pen." Demonstrate with eyes open. "Now, with your eyes closed, I want you to tell me what letter I'm tracing."

Score: P/F.

Left hand:

___/1 "L"

___/1 "O"

Right hand:

___/1 "J"

___/1 "T"

Identifying objects with closed eyes: [Stereognosis] "I'm going to put some objects in your hands. With your eyes closed, can you tell me what each of them is?"

Score P/F.

Left hand:

___/1 Key

___/1 Coin

Right hand:

___/1 Coin

___/1 Key

Finger identification:

Point to a finger on patients' left hand and ask "What is this finger called?" Score P/F.

Point to a finger on patients' right hand and ask "What is this finger called?" Score P/F

Right-left orientation:

___/1 Score: P/F. "Show me your left foot."

___/1 Score: P/F "Show me your right hand."

___/1 Score: P/F "Show me your left knee."

___/1 Score: P/F "Show me your right ear."

Apraxia

Buccolingual Praxis: "Can you show me how to blow out a match stick."

___/1 Score: P/F.

Limb Praxis: "Please pretend that you have a hammer in your hand.. show me how you would use it."

___/1 Score: P/F.

Body Praxis: "Please pretend that you are playing cricket and you have a bat in your hands.. show me

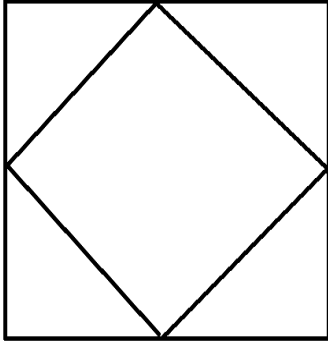
how you would use it.”

___/1 Score: P/F.

Ideational apraxia: “Show me how would you use a toothpaste and a toothbrush.”

___/1 Score: P/F.

Figure copying: “Please draw this figure as they appear to you”



Has person drawn a picture based on a square?1

Do all internal lines appear in the persons drawing?....1

Do all external lines appear in the persons drawing?....1

Score: ___/3 (adapted from RUDAS)

Clock face drawing: “Please draw a clock face with numbers and hands, showing time 5:10”

Score: [Circle = 1, numbers = 2, hands = 2] ___/5 (from ACE-R)

Calculation ability (considering patients educational background calculation ability was assessed using)

Simple addition and multiplication:

e.g. $7 + 6$, 5×7 , 8×7

Slightly difficult arithmetic without paper and pencil:

e.g. $18 + 29$, 15×7

Difficult arithmetic using paper and pencil:

e.g. $429 / 87$, 423×18

Overall score: P/F

Frontal lobe function

Similarities: “In what way are they alike?” (from FAB)

A banana and an orange

A table and a chair

A tulip, a rose and a daisy

Score (only category responses [fruits, furniture, flowers] are considered correct)

Three correct: 3; Two correct: 2; One correct: 1; None correct: 0

Proverb interpretation: Elicit for the patient a familiar proverb. Then ask the patient “What people mean when they say that?”. Record response and judge concreteness of response.

Score: Concrete / Abstract

Set generation: [Letter] “I’m give you a letter of the alphabet and I would like you to generate as many words as you can beginning with the letter, but not names of people or places. You have one minute and the letter is S”.

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Score: ___/1 [N >=11] (from MoCA)

Set generation: [Vegetables] “Now can you name as many vegetables as possible in one minute”.

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Score: ___/1 [N >=12] (from DART)

Set generation: [Animal] “Now can you name as many animals as possible in one minute”. Stop if the patient can name 8 or more new animals in a minute. [from RUDAS]

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Score: ____/1

Luria motor test: “Look carefully at what I’m doing.”

The examiner, seated in front of the patient, performs alone three times with his left hand the series of “fist–edge–palm.”

“Now, with your right hand do the same series, first with me, then alone.”

The examiner performs the series three times with the patient, then says to him/her:

“Now, do it on your own.”

Score (from FAB)

Patient performs six correct consecutive series alone: 3

Patient performs at least three correct consecutive series alone: 2

Patient fails alone, but performs three correct consecutive series with the examiner: 1

Patient cannot perform three correct consecutive series even with the examiner: 0

Go–No Go (inhibitory control):

“Tap once when I tap once.”

To ensure that the patient has understood the instruction, a series of 3 trials is run: 1-1-1.

“Do not tap when I tap twice.”

To ensure that the patient has understood the instruction, a series of 3 trials is run: 2-2-2.

The examiner then performs the following series: 1-1-2-1-2-2-2-1-1-2.

Score No errors: 3; 1 -2 errors: 2; > 2 errors: 1; Patient taps like the examiner at least four consecutive times: 0 (from FAB)

Frontal release reflexes: (tick positive ones)

Gabellar tap

Forced grasp

Palmomental

Sucking

Snout

Visual agnosia (test only if pt is alert, near normal intelligence and no memory and language disorder)

Matching test: [Apperceptive agnosia] “Match the figure in column A with that in Column B”

Score: P/F

Incomplete letter test: [Perceptual categorization defect] “Please identify the following letters / things”

Score: ____/4

Matching dissimilar objects: [Associative agnosia] “Please match item in the top row with similar item in the bottom row”

Score: ____/3

Face identification: [Prosopagnosia] “Can you please identify these people for me?”

Score: ____/3

Color naming and pointing: [Central color vision abnormalities]

For first row ask the patient to name the color. Score ____/4

For the second row ask the patient to point to blue, green, red, yellow. Score: ____/4

Global letter: [Dorsal simultagnosia] “Please identify the letter in this picture”

Score: ____/1

Mixed figure test: [Ventral simultagnosia] “What objects do you see in this picture?”

Score: ____/8

Final Scoring

This is a clinical impression based on bedside testing, which has not been validated or normed.

Area	Clinical impression	Remarks
Orientation	Normal / Equivocal / Abnormal	
Attention	Normal / Equivocal / Abnormal	
Perseveration	Normal / Equivocal / Abnormal	
Memory-immediate-verbal	Normal / Equivocal / Abnormal	
Memory-immediate-visual	Normal / Equivocal / Abnormal	
Memory-recent-verbal	Normal / Equivocal / Abnormal	
Memory-recent-visual	Normal / Equivocal / Abnormal	
Memory-remote	Normal / Equivocal / Abnormal	
Language	Normal / Equivocal / Abnormal	
Apraxia	Normal / Equivocal / Abnormal	
Agnosia	Normal / Equivocal / Abnormal	
Calculation	Normal / Equivocal / Abnormal	
Frontal lobe function	Normal / Equivocal / Abnormal	
Occipital lobe function	Normal / Equivocal / Abnormal	

Figure drawing stimulus material and scoring

Figure 1



Scoring Figure 1

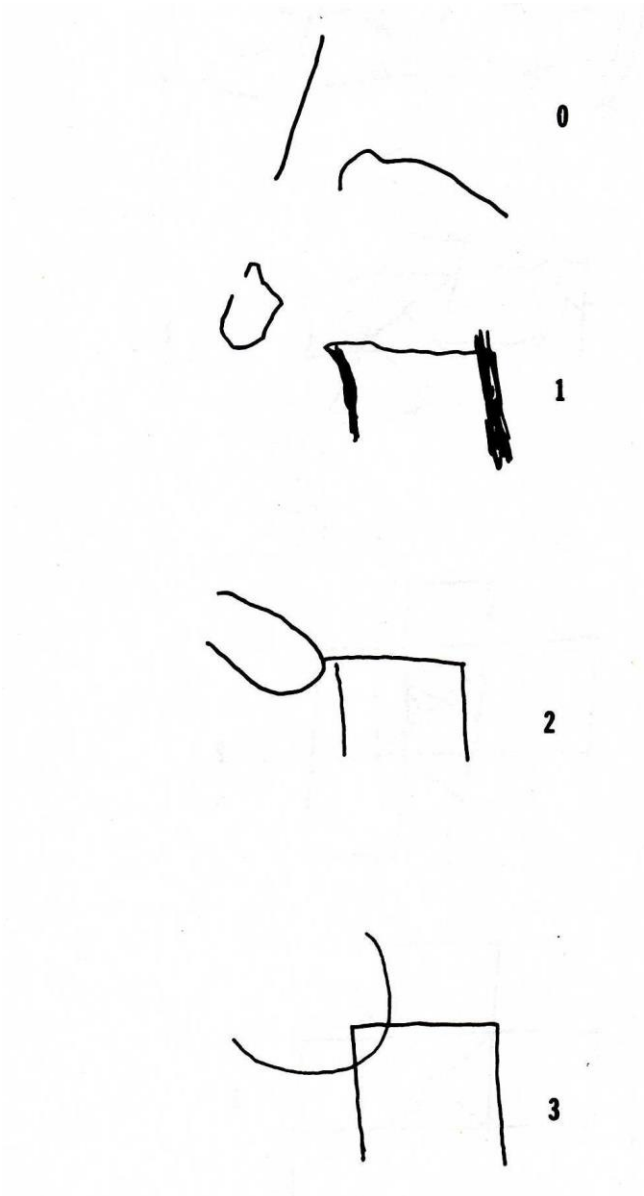
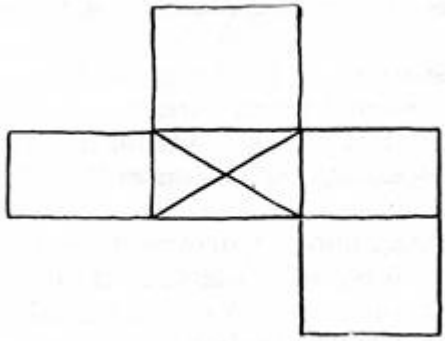


Figure 2



Scoring figure 2

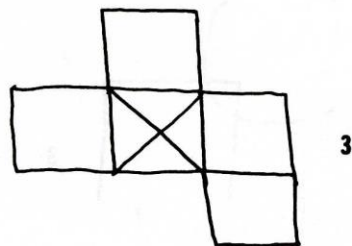
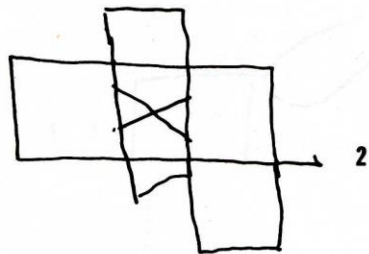
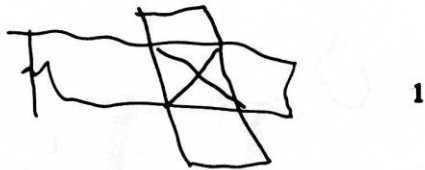
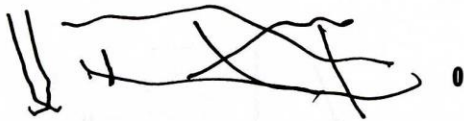
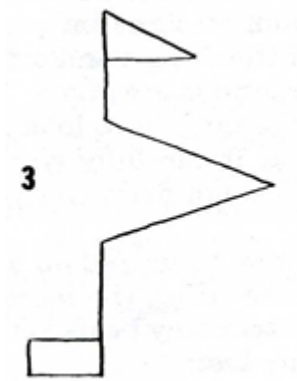


Figure 3



Scoring figure 3

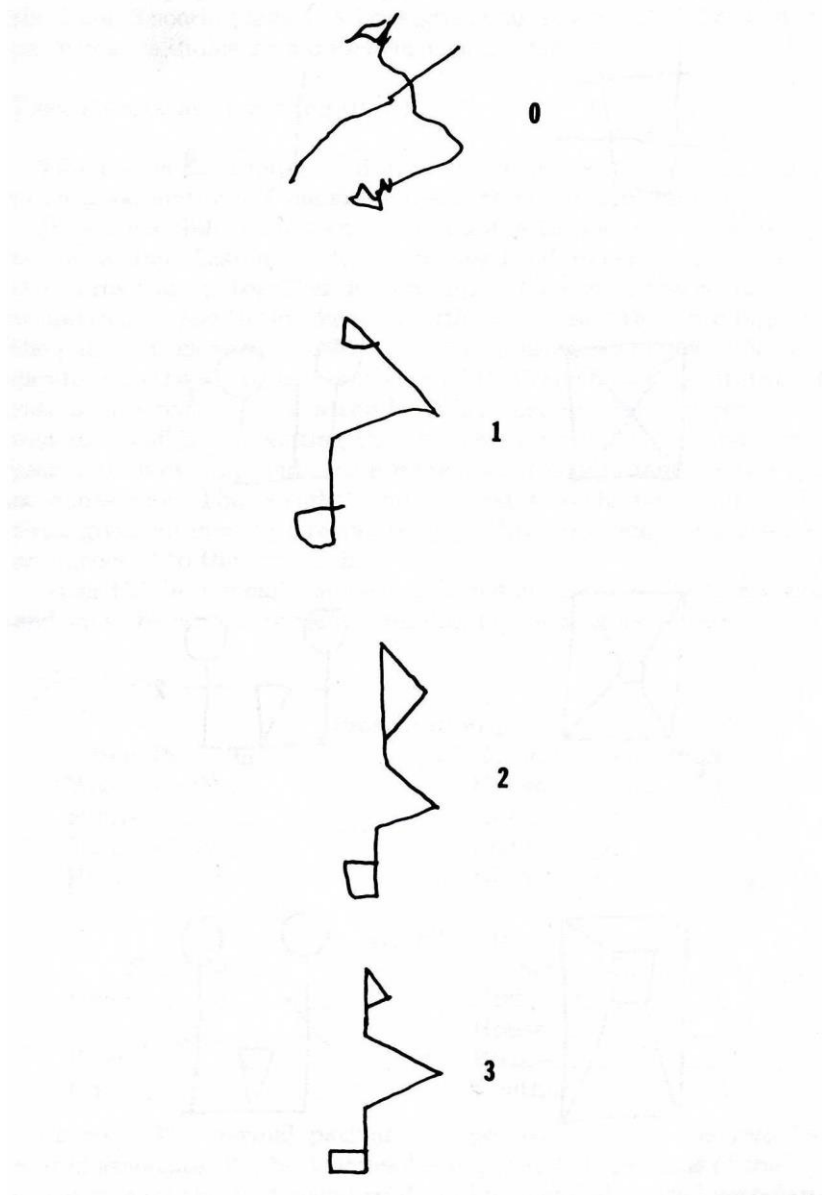
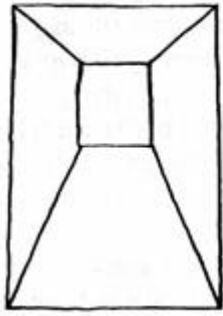
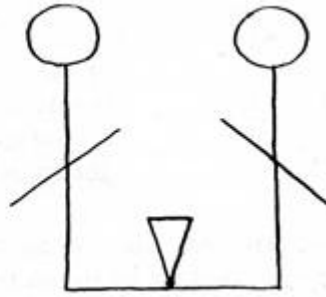


Figure 4



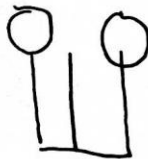
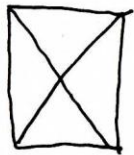
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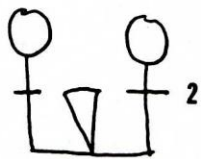
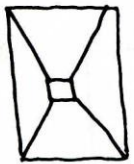
Scoring figure 4



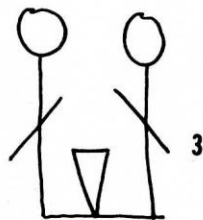
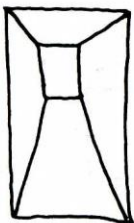
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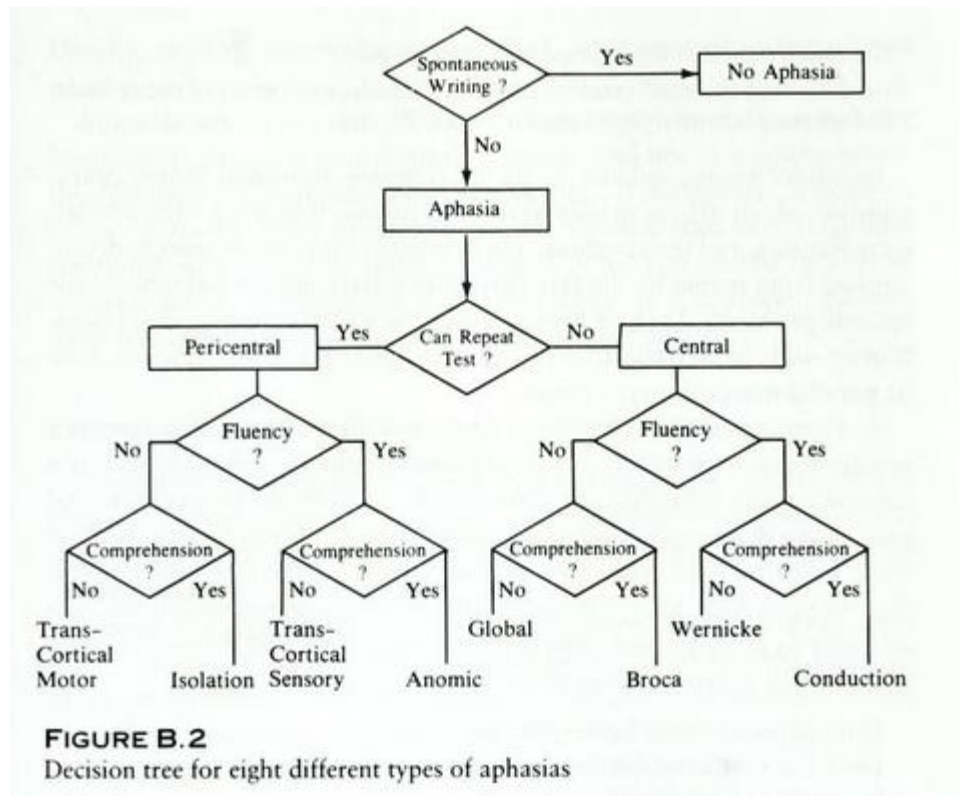


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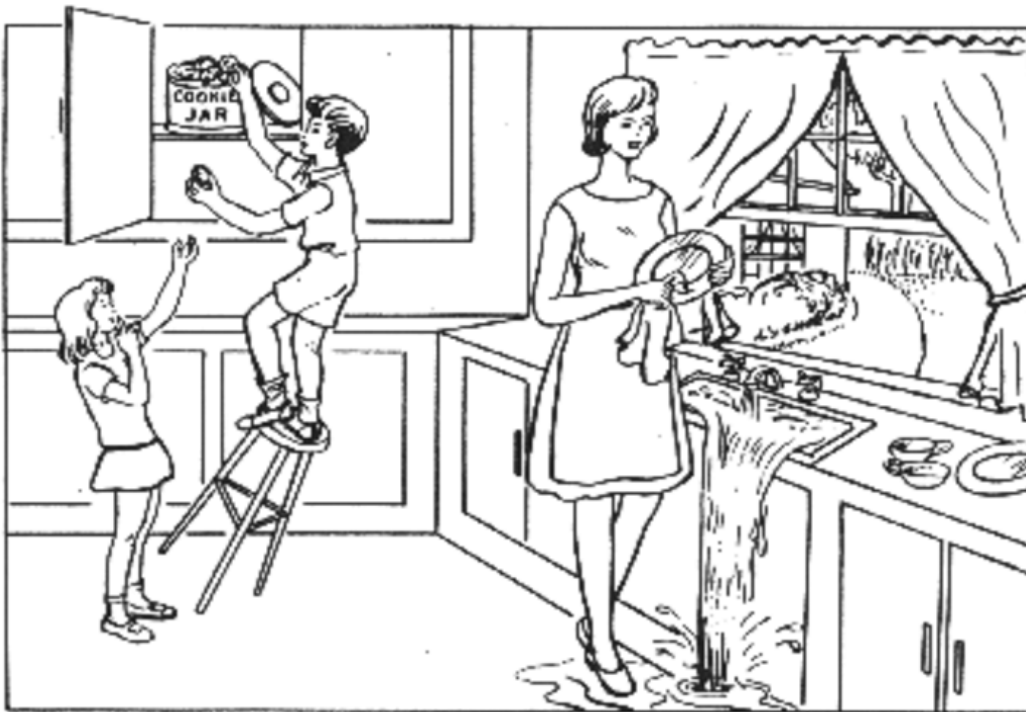


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Decision tree for Aphasias

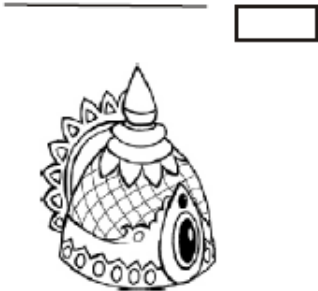
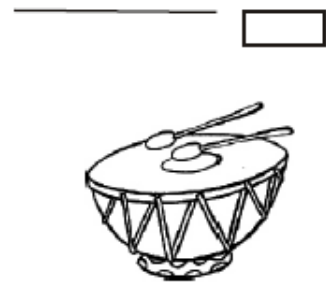
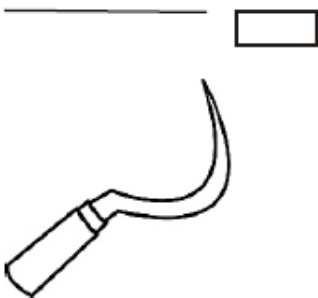
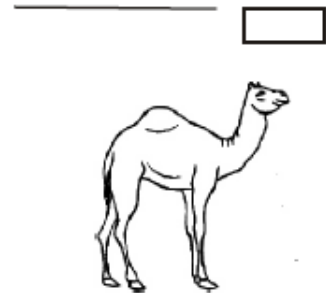
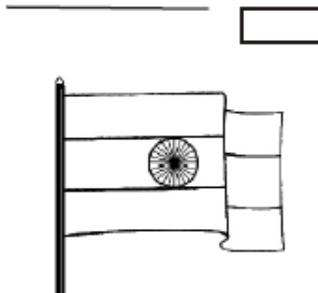
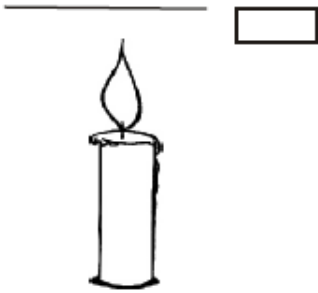
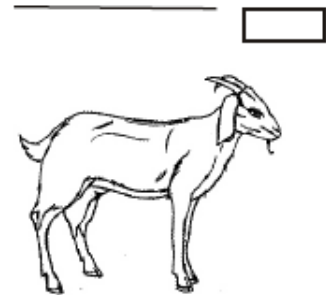
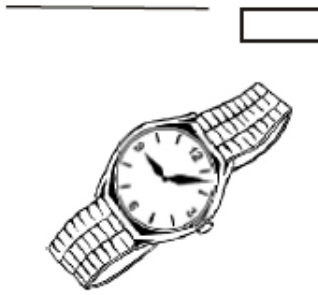


Cookie Theft picture



ACE-R Naming stimulus

➤ Ask the subject to name the following pictures:





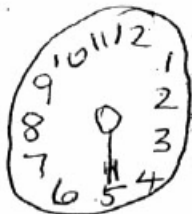

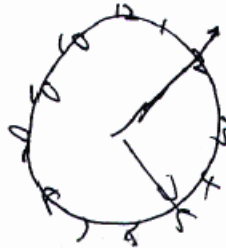
Clock drawing scoring

Ask the participant to draw a clock face with the numbers on it. When he/she has finished, ask them to put the hands at 5:10.

Circle: 1 point maximum if it is a reasonable circle

Numbers: 2 points if all included and well distributed
1 point if all included but poorly distributed

Hands: 2 points if both hands are well drawn, different lengths and placed on correct numbers (you might ask which one is the small and big one)
1 point if both placed on the correct numbers but wrong lengths OR
1 point if one hand is placed on the correct number and drawn with correct length OR
1 point if only one hand is drawn and placed at the correct number i.e. 5 for '5:10'

Score 2		
<p>Circle (1); one hand placed correctly (1)</p> 	<p>Circle (1); all the numbers but not placed inside the circle (1)</p> 	
Score 3		
<p>Circle (1); all the numbers but not proportionally distributed (1), one hand placed correctly (1)</p> 	<p>Circle (1), all the numbers but not placed inside the circle (1), one hand placed correctly (1).</p> 	<p>Circle (1), note that numbers are not inside the circle and there are 2 number 10s (0), hands placed correctly</p> 

Score 4

Circle (1); numbers proportionally distributed (2); one hand placed correctly (1)



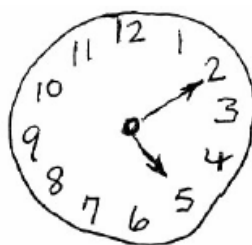
Circle (1); all the numbers but not proportionally distributed (1); both hands placed correctly (2)



Circle (1); numbers proportionally distributed (2), one hand placed correctly (1)

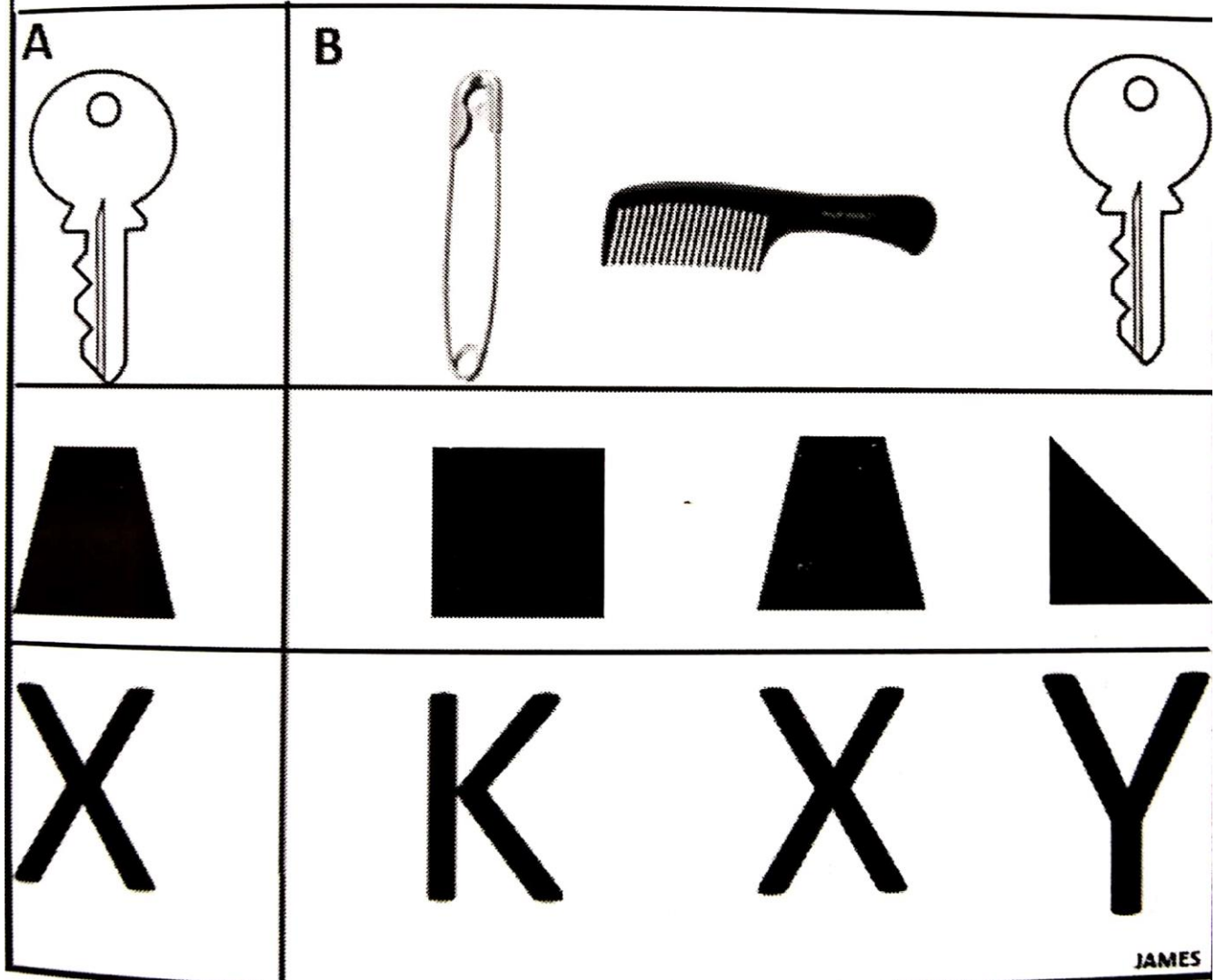
**Score 5**

Circle (1); numbers proportionally distributed on both halves of the clock face (2); hands placed correctly (2)



Matching Test

Apperceptive agnosia patients cannot match item in column A with items in column B



Incomplete Letter Test

English

K

M

A

T

Gujarati

સ

હ

હ

સ

Hindi

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Illiterate

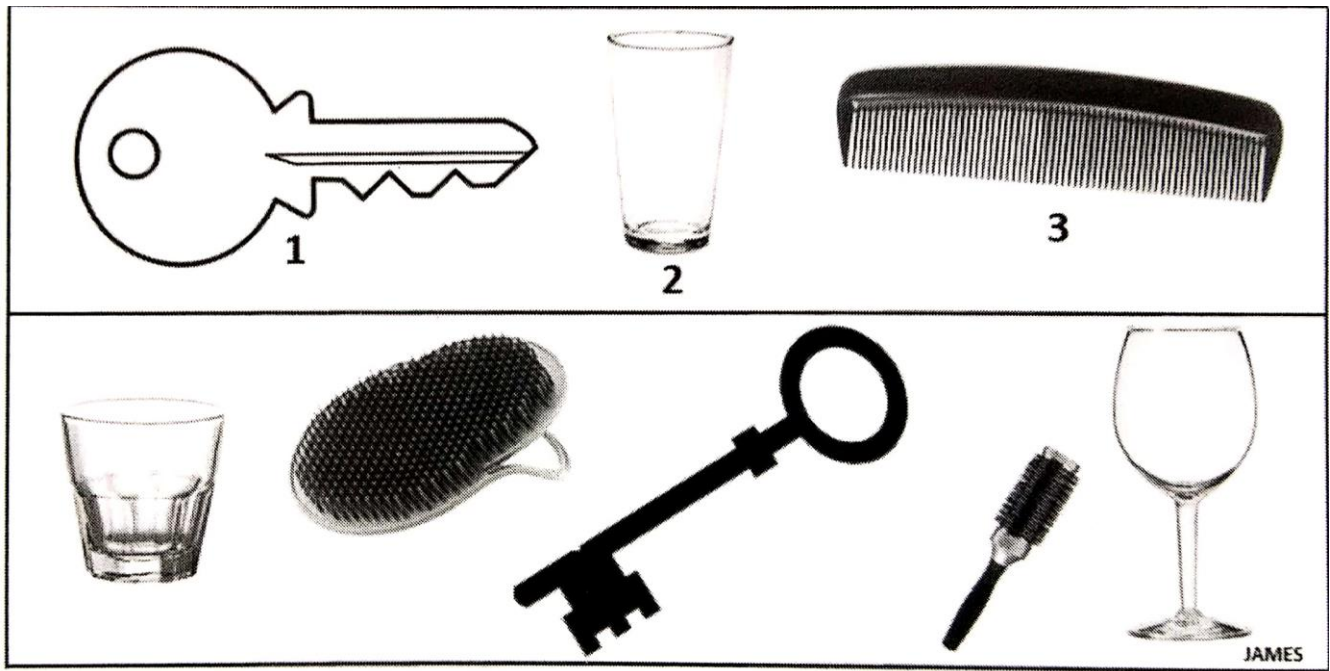
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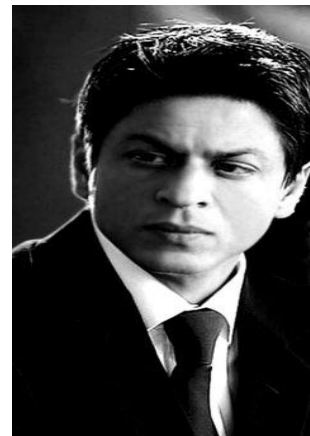
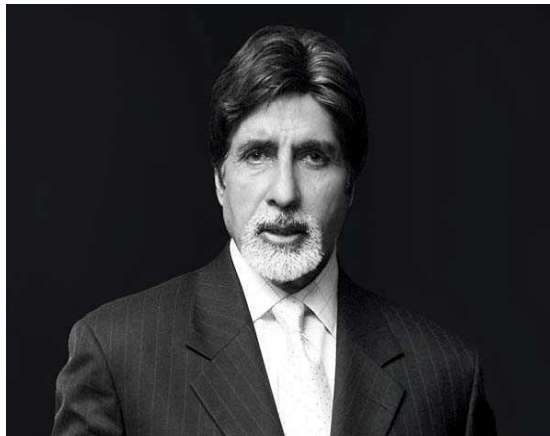
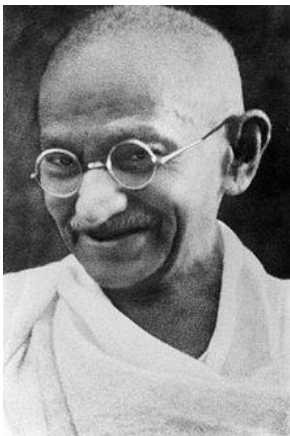
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Matching dissimilar objects

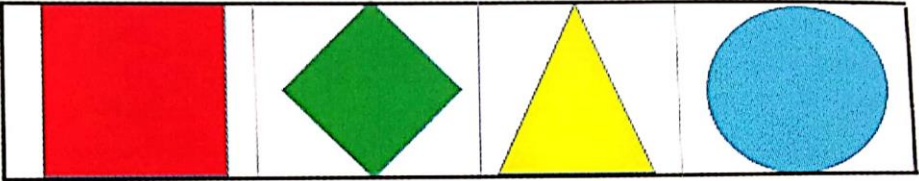


Face identification

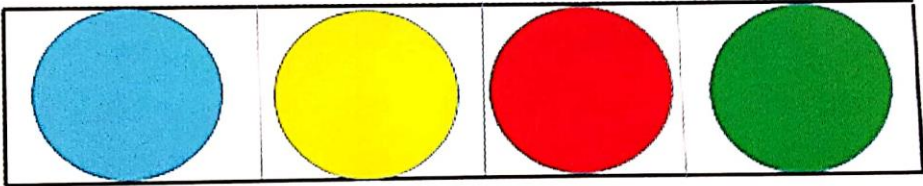


Color naming and matching

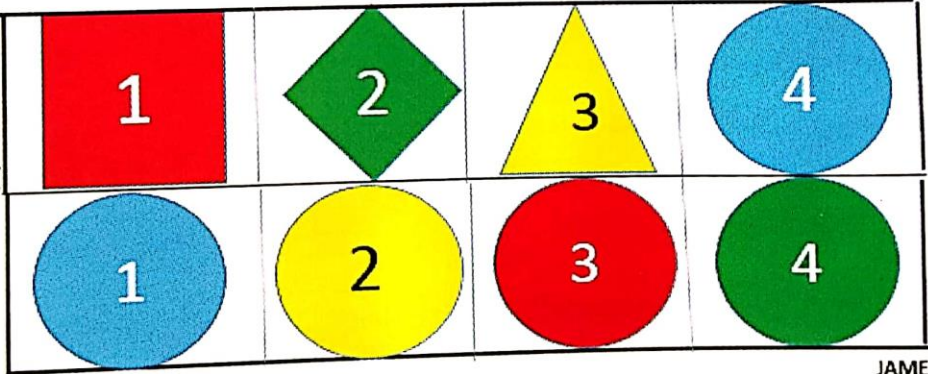
Colour naming



Colour pointing

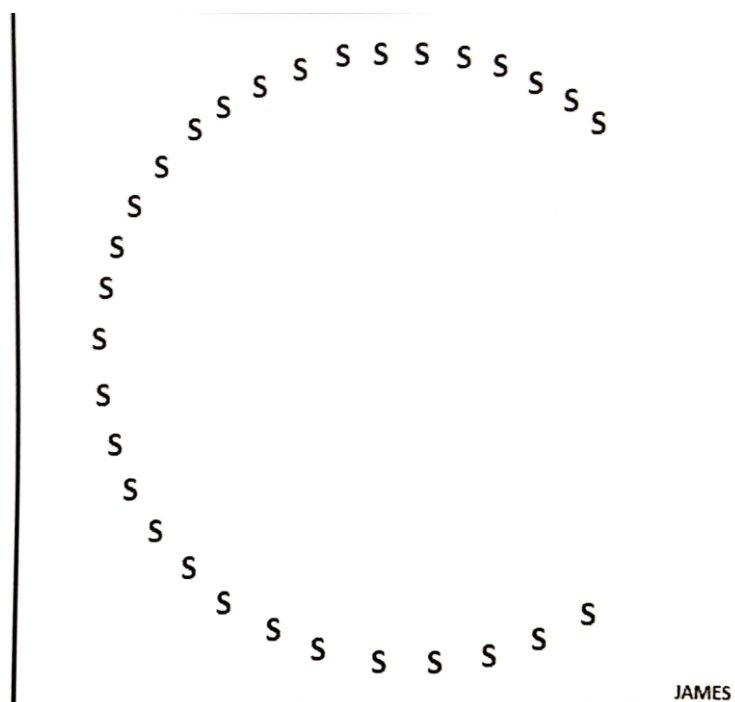


Colour matching



JAMES

Global letter test



Mixed figure test

