

# ADDENBROOKE'S COGNITIVE EXAMINATION – ACE-III

## UK Version B (2012)

|   |  |
|---|--|
| Name: _____<br>Date of Birth: _____<br>Hospital No. or Address: _____ | Date of testing: ____/____/____<br>Tester's name: _____<br>Age at leaving full-time education: _____<br>Occupation: _____<br>Handedness: _____ |
|---|--|

### ATTENTION

\*(Sum together only the items in BOLD for the M-ACE score)

|                    |            |                 |              |             |         |   |
|--------------------|------------|-----------------|--------------|-------------|---------|---|
| ➤ Ask: What is the | <b>Day</b> | <b>Date</b>     | <b>Month</b> | <b>Year</b> | Season  | <b>Attention</b><br>[Score 0-5]<br><div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> |
| ➤ Ask: Which       | No./Floor  | Street/Hospital | Town         | County      | Country | <b>Attention</b><br>[Score 0-5]<br><div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> |

### ATTENTION

|  |   |
|--|---|
| ➤ Tell: "I'm going to give you three words and I'd like you to repeat them after me: apple, coin, chair."<br>After subject repeats, say "Try to remember them because I'm going to ask you later".<br>➤ Score <i>only</i> the first trial (repeat 3 times if necessary).<br>➤ Register number of trials: _____ | <b>Attention</b><br>[Score 0-3]<br><div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> |
|--|---|

### ATTENTION

|   |   |
|---|---|
| ➤ Ask the subject: "Could you take 7 away from 100? I'd like you to keep taking 7 away from each new number until I tell you to stop."<br>➤ If subject makes a mistake, do not stop them. Let the subject carry on and check subsequent answers (e.g., 93, 84, 77, 70, 63 – score 4).<br>➤ Stop after five subtractions (93, 86, 79, 72, 65): _____ | <b>Attention</b><br>[Score 0-5]<br><div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> |
|---|---|

### MEMORY

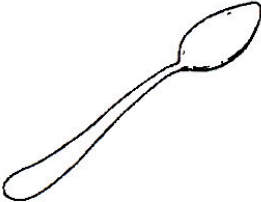
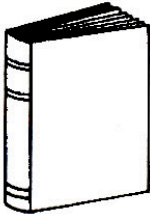
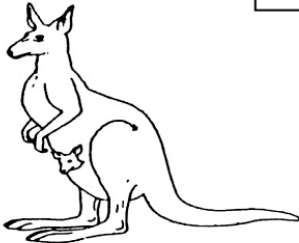

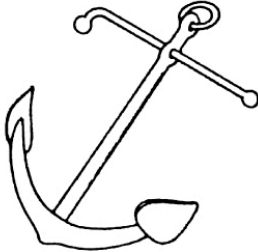
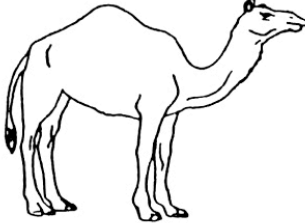

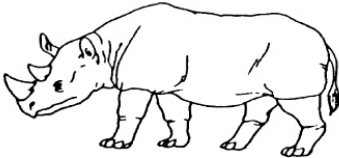



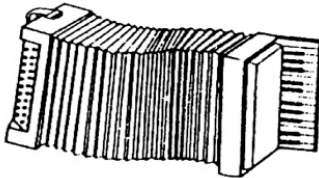
|  |  |
|--|--|
| ➤ Ask: 'Which 3 words did I ask you to repeat and remember?' _____ | <b>Memory</b><br>[Score 0-3]<br><div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> |
|--|--|

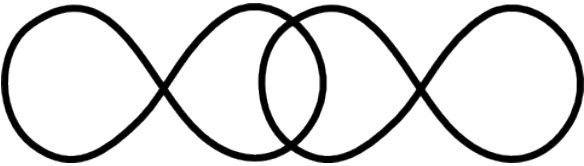
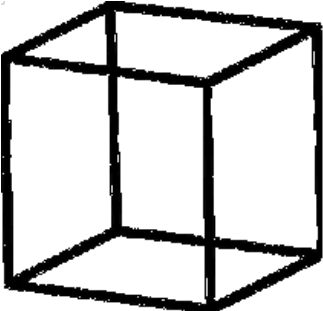
### FLUENCY

|  |   |      |   |       |   |       |   |      |   |     |   |     |   |     |   |     |   |       |         |
|--|---|------|---|-------|---|-------|---|------|---|-----|---|-----|---|-----|---|-----|---|-------|---------|
| ➤ <b>Letters</b><br>Say: "I'm going to give you a letter of the alphabet and I'd like you to generate as many words as you can beginning with that letter, but not names of people or places. For example, if I give you the letter "C", you could give me words like "cat, cry, clock" and so on. But, you can't give me words like Catherine or Canada. Do you understand? Are you ready? You have one minute. The letter I want you to use is the letter "P". | <b>Fluency</b><br>[Score 0 – 7]<br><div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>   |      |   |       |   |       |   |      |   |     |   |     |   |     |   |     |   |       |         |
|  | <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td>≥ 18</td><td>7</td></tr> <tr><td>14-17</td><td>6</td></tr> <tr><td>11-13</td><td>5</td></tr> <tr><td>8-10</td><td>4</td></tr> <tr><td>6-7</td><td>3</td></tr> <tr><td>4-5</td><td>2</td></tr> <tr><td>2-3</td><td>1</td></tr> <tr><td>0-1</td><td>0</td></tr> <tr><td>total</td><td>correct</td></tr> </table> | ≥ 18 | 7 | 14-17 | 6 | 11-13 | 5 | 8-10 | 4 | 6-7 | 3 | 4-5 | 2 | 2-3 | 1 | 0-1 | 0 | total | correct |
| ≥ 18   | 7   |      |   |       |   |       |   |      |   |     |   |     |   |     |   |     |   |       |         |
| 14-17  | 6   |      |   |       |   |       |   |      |   |     |   |     |   |     |   |     |   |       |         |
| 11-13  | 5   |      |   |       |   |       |   |      |   |     |   |     |   |     |   |     |   |       |         |
| 8-10   | 4   |      |   |       |   |       |   |      |   |     |   |     |   |     |   |     |   |       |         |
| 6-7  | 3   |      |   |       |   |       |   |      |   |     |   |     |   |     |   |     |   |       |         |
| 4-5  | 2   |      |   |       |   |       |   |      |   |     |   |     |   |     |   |     |   |       |         |
| 2-3  | 1   |      |   |       |   |       |   |      |   |     |   |     |   |     |   |     |   |       |         |
| 0-1  | 0   |      |   |       |   |       |   |      |   |     |   |     |   |     |   |     |   |       |         |
| total  | correct   |      |   |       |   |       |   |      |   |     |   |     |   |     |   |     |   |       |         |

|  |   |      |   |       |   |       |   |       |   |      |   |     |   |     |   |    |   |       |         |
|--|---|------|---|-------|---|-------|---|-------|---|------|---|-----|---|-----|---|----|---|-------|---------|
| ➤ <b>Animals</b><br>Say: "Now can you name as many animals as possible. It can begin with any letter." | <b>Fluency</b><br>[Score 0 – 7]<br><div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>   |      |   |       |   |       |   |       |   |      |   |     |   |     |   |    |   |       |         |
|  | <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td>≥ 22</td><td>7</td></tr> <tr><td>17-21</td><td>6</td></tr> <tr><td>14-16</td><td>5</td></tr> <tr><td>11-13</td><td>4</td></tr> <tr><td>9-10</td><td>3</td></tr> <tr><td>7-8</td><td>2</td></tr> <tr><td>5-6</td><td>1</td></tr> <tr><td>&lt;5</td><td>0</td></tr> <tr><td>total</td><td>correct</td></tr> </table> | ≥ 22 | 7 | 17-21 | 6 | 14-16 | 5 | 11-13 | 4 | 9-10 | 3 | 7-8 | 2 | 5-6 | 1 | <5 | 0 | total | correct |
| ≥ 22   | 7   |      |   |       |   |       |   |       |   |      |   |     |   |     |   |    |   |       |         |
| 17-21  | 6   |      |   |       |   |       |   |       |   |      |   |     |   |     |   |    |   |       |         |
| 14-16  | 5   |      |   |       |   |       |   |       |   |      |   |     |   |     |   |    |   |       |         |
| 11-13  | 4   |      |   |       |   |       |   |       |   |      |   |     |   |     |   |    |   |       |         |
| 9-10   | 3   |      |   |       |   |       |   |       |   |      |   |     |   |     |   |    |   |       |         |
| 7-8  | 2   |      |   |       |   |       |   |       |   |      |   |     |   |     |   |    |   |       |         |
| 5-6  | 1   |      |   |       |   |       |   |       |   |      |   |     |   |     |   |    |   |       |         |
| <5   | 0   |      |   |       |   |       |   |       |   |      |   |     |   |     |   |    |   |       |         |
| total  | correct   |      |   |       |   |       |   |       |   |      |   |     |   |     |   |    |   |       |         |

| MEMORY  |                                  |                                  |   |
|---|----------------------------------|----------------------------------|---|
| <p>➤ Tell: "I'm going to give you a name and address and I'd like you to repeat the name and address after me. So you have a chance to learn, we'll be doing that 3 times. I'll ask you the name and address later."</p> <p>Score only the third trial.</p>   |                                  |                                  | <p><b>Memory</b><br/>[Score 0 – 7]</p> <div> <div></div> <div></div> </div> |
|   | <b>1<sup>st</sup> Trial</b>      | <b>2<sup>nd</sup> Trial</b>      | <b>3<sup>rd</sup> Trial</b>   |
| Linda Clark<br>59 Meadow Close<br>Milford<br>Surrey   | _____<br>_____<br>_____<br>_____ | _____<br>_____<br>_____<br>_____ | _____<br>_____<br>_____<br>_____  |
| MEMORY  |                                  |                                  |   |
| <p>➤ Name of the current Prime Minister.....</p> <p>➤ Name of the first female Prime Minister .....</p> <p>➤ Name of the USA president.....</p> <p>➤ Name of the USA president who was assassinated in the 1960s.....</p>   |                                  |                                  | <p><b>Memory</b><br/>[Score 0 – 4 ]</p> <div></div>                         |
| LANGUAGE  |                                  |                                  |   |
| <p>➤ Place a pencil and a piece of paper in front of the subject. As a practice trial, ask the subject to <b>"Pick up the pencil and then the paper."</b> If incorrect, score 0 and do not continue further.</p> <p>➤ If the subject is correct on the practice trial, continue with the following three commands below.</p> <ul style="list-style-type: none"> <li>• Ask the subject to <b>"Place the paper on top of the pencil"</b></li> <li>• Ask the subject to <b>"Pick up the pencil but not the paper"</b></li> <li>• Ask the subject to <b>"Pass me the pencil after touching the paper"</b></li> </ul> <p>Note: Place the pencil and paper in front of the subject before each command.</p> |                                  |                                  | <p><b>Language</b><br/>[Score 0-3]</p> <div></div>                          |
| LANGUAGE  |                                  |                                  |   |
| <p>➤ Say: "I want you to write two sentences. It can be about anything that you like. I want you to write in full sentences and avoid abbreviations." If the subject does not know what to write about, you could suggest a few topics. "For instance, you could write about a recent holiday, your hobbies, your family or childhood." If the subject writes only one sentence, then prompt for a second one.</p> <p>Sentences must contain a subject and a verb. Spelling and grammar are penalized. Sentences do not need to be about the same topic. See scoring guidelines for more information.</p>   |                                  |                                  | <p><b>Language</b><br/>[Score 0-2]</p> <div></div>                          |
|   |                                  |                                  |   |
| LANGUAGE  |                                  |                                  |   |
| <p>➤ Ask the subject to repeat: 'caterpillar'; 'eccentricity'; 'unintelligible'; 'statistician'</p> <p>Score 2 if all are correct; score 1 if 3 are correct; and score 0 if 2 or less are correct.</p>  |                                  |                                  | <p><b>Language</b><br/>[Score 0-2]</p> <div></div>                          |

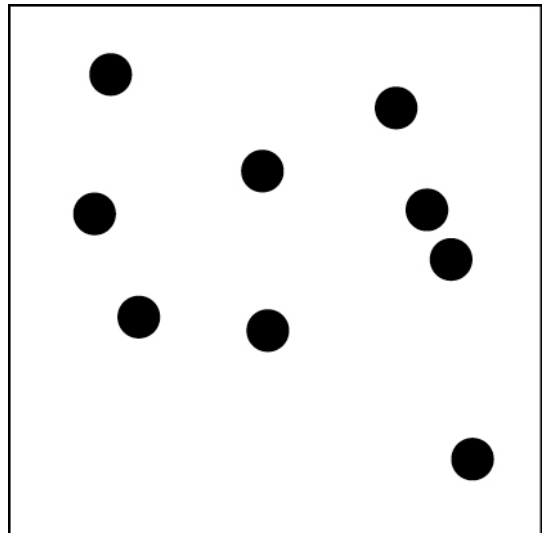
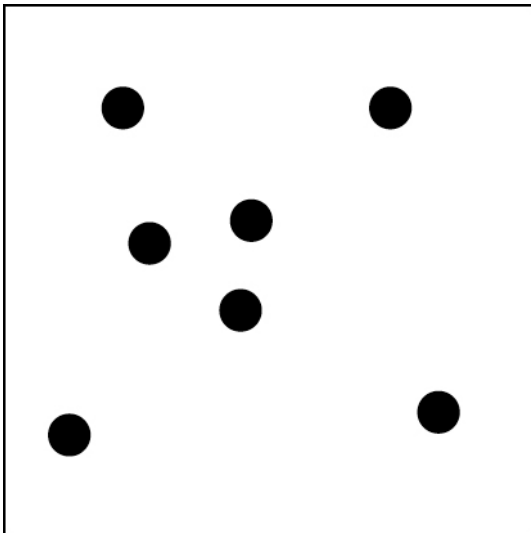
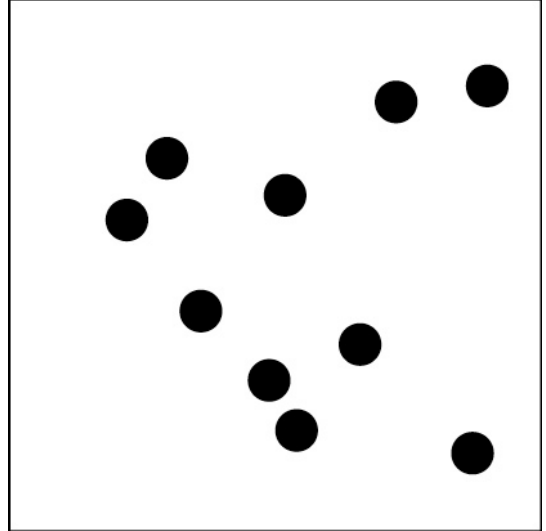
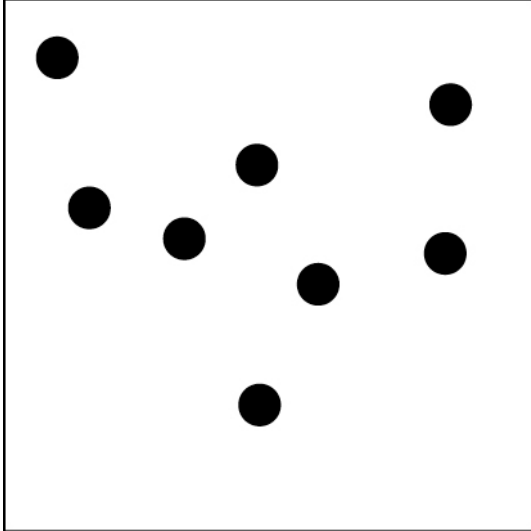
| LANGUAGE  |   |
|---|---|
| <p>➤ Ask the subject to repeat: 'All that glitters is not gold'</p>   | <p>Language [Score 0-1]</p> <div></div> |
| <p>➤ Ask the subject to repeat: 'A stitch in time saves nine'</p>   | <p>Language [Score 0-1]</p> <div></div> |
| LANGUAGE  |   |
| <p>➤ Ask the subject to name the following pictures:</p> <div> <div>_____ <div></div></div> <div>  </div> </div> <div> <div>_____ <div></div></div> <div>  </div> </div> <div> <div>_____ <div></div></div> <div>  </div> </div> <div> <div>_____ <div></div></div> <div>  </div> </div> <div> <div>_____ <div></div></div> <div>  </div> </div> <div> <div>_____ <div></div></div> <div>  </div> </div> <div> <div>_____ <div></div></div> <div>  </div> </div> <div> <div>_____ <div></div></div> <div>  </div> </div> <div> <div>_____ <div></div></div> <div>  </div> </div> <div> <div>_____ <div></div></div> <div>  </div> </div> <div> <div>_____ <div></div></div> <div>  </div> </div> <div> <div>_____ <div></div></div> <div>  </div> </div> |   |

| LANGUAGE  |  |
|---|--|
| <p>➤ Ask the subject to read the following words: (Score 1 only if all correct)</p> <p><b>sew</b><br/><b>pint</b><br/><b>soot</b><br/><b>dough</b><br/><b>height</b></p>  | <p><b>Language</b><br/>[Score 0-1]</p> <div></div>                           |
| VISUOSPATIAL ABILITIES  |  |
| <p>➤ Infinity Diagram: Ask the subject to copy this diagram.</p>  | <p><b>Visuospatial</b><br/>[Score 0-1]</p> <div></div>                       |
|   |  |
| <p>➤ Wire cube: Ask the subject to copy this drawing (for scoring, see instructions guide).</p>   | <p><b>Visuospatial</b><br/>[Score 0-2]</p> <div></div>                       |
|   |  |
| <p>➤ Clock: Ask the subject to draw a clock face with numbers. Then, ask the subject to put the hands at ten past five. (For scoring see instruction guide: circle = 1, numbers = 2, hands = 2 if all correct).</p> | <p><b>Visuospatial</b><br/>[Score 0-5]</p> <div><div></div><div></div></div> |
|   |  |

# VISUOSPATIAL ABILITIES

➤ Ask the subject to count the dots without pointing to them

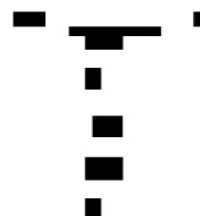
Visuospatial  
[Score 0-4]



## VISUOSPATIAL ABILITIES

➤ Ask the subject to identify the letters

**Visuospatial**  
[Score 0-4]



## MEMORY

➤ Ask "Now tell me what you remember about that name and address we were repeating at the beginning"

Linda Clark  
59 Meadow Close  
Milford  
Surrey

.....  
.....  
.....  
.....

**Memory**  
[Score 0-7]

## MEMORY

➤ This test should be done if the subject failed to recall one or more items above. If all items were recalled, skip the test and score 5. If only part was recalled start by ticking items recalled in the shadowed column on the right hand side; and then test not recalled items by telling the subject "ok, I'll give you some hints: was the name X, Y or Z?" and so on. Each recognised item scores one point, which is added to the point gained by recalling.

**Memory**  
[Score 0-5]

|                |  |               |  |                |  |          |  |
|----------------|--|---------------|--|----------------|--|----------|--|
| Laura Marshall |  | Linda Clark   |  | Linda Crawford |  | recalled |  |
| 39             |  | 52            |  | 59             |  | recalled |  |
| Meadow Close   |  | Gardens Close |  | Meadow Street  |  | recalled |  |
| Leatherhead    |  | Milford       |  | Redhill        |  | recalled |  |
| Hampshire      |  | Sussex        |  | Surrey         |  | recalled |  |

## SCORES

|                            |      |
|----------------------------|------|
| <b>TOTAL ACE-III SCORE</b> | /100 |
| <b>TOTAL M-ACE SCORE</b>   | /30  |
| <b>Attention</b>           | /18  |
| <b>Memory</b>              | /26  |
| <b>Fluency</b>             | /14  |
| <b>Language</b>            | /26  |
| <b>Visuospatial</b>        | /16  |