CATEGORY FLUENCY TEST

Instructions

This should be done at the start of the first testing session, i.e. before the subject has seen any of the naming cards etc since these may prime the fluencies.

Say: “I’m going to give you a category and ask you to name all the different examples that you can think of from that category in one minute. For instance, if I said flowers, you might say rose, daisy, etc. Do you understand?”

“Now go ahead and tell me all the different ANIMALS you can think of.”

Introduce the following categories - FRUIT, BIRDS, BREEDS OF DOG in the same way.

[Engage in casual conversation for approximately 1 minute]

Then introduce the inanimate categories of HOUSEHOLD ITEMS, TOOLS, VEHICLES and TYPES OF BOAT in the same way as above.

[Record all responses]

Notes

1. **TAPE THIS TEST** since subjects normally say more than you can write down. You can then go back and check if you have missed anything out.
2. Write down everything that the subject says including comments etc, and try to note down on the score sheet at what point during the minute they say it.
3. Subjects often stop and say for instance “Birds, do they count as animals?” Try not to interrupt the flow, but answer very briefly e.g. “Yes, that’s fine.”
4. If subjects stop within the minute encourage them to continue for the full 60 seconds. Encourage at the end of the minute if appropriate. Sometimes they refuse to do any more, so you can say “There are a few seconds left so we’ll just let the time run on”.
SCORING Category Fluency

Animals
Mythical animals are not allowed, e.g. “Unicorn” is scored as an Intrusion.
“Cuddly toy” is an Intrusion.
Mark superordinates as “other”, e.g. If subject says “cat, dog, sheepdog, greyhound, horse...”, mark ‘dog’ as Other, ‘sheepdog’ and ‘greyhound’ as Correct Responses.
If subject says “black dog”, mark as Other.
Insects are acceptable.
“Calf, cow, bull” are all acceptable, and would be scored as 3 Correct Responses.

If subject says “I gave you dog” but they didn’t, still give them a Correct Response.
If subject had already said it, count it as an Other response (because the subject has remembered correctly that dog has already been given).

If subject says “Did I say dog?” and they are unsure but they have in fact said it, then mark it as a Perseveration.
If they haven’t said it, then mark as a Correct Response.

Birds
If patient says “Does robin count?” mark it as Correct Response.
If patient says “Do dogs count?” mark it as an Intrusion

Breeds of dog
German Shepherd and Alsatian are counted as 2 separate Correct Responses. Mongrel is also a Correct Response.
“Hunting/Racing dog” is not, mark as Other.

Household Items
“Kitchen, bedroom, bath, toilet, window” etc. (i.e. household fittings/fixtures) are Intrusions.
If patient says “Chair, table, coffee table, picture”, mark ‘table’ as Other and ‘coffee table’ as Correct Response
Don’t allow cheese, shampoo, herbs etc.
Carpets, cupboards, doors = Intrusions
Furniture, chair, desk, table.... Furniture = Other, the rest are Correct Responses.

Vehicles
Sidecar is not a Correct Response
Wheelbarrow, caravan, skis, skates, skateboard, wheelchair are all Correct Responses.
If subject says “plane, ferry, car ferry, train...” mark ‘ferry’ as Correct Responses and “car ferry’ as Perseveration.
If subject gives you makes of car e.g. Ford, BMW etc, these are correct but they would then not get a point for the response ‘car’ (as it would be a superordinate and counted as an Other).

Boats
Any names of boats e.g QE2/Queen Mary are counted as Other responses

General Remarks
• Only score responses that are relevant to the task i.e. patients questions and ramblings are entered as Other responses.
• If the patient makes a phonemic error e.g. guinea fig (for animals) and you can understand what they mean, mark as Correct Response. If not, mark as Other
• If patient corrects self or takes their comment back, it doesn’t count as a Correct Response.
• For household items, if patient says “Chair, table, broom, tooth brush, hair brush...Oh, what are we on? Brushes?....” you can correct them and say, “No , we are on household items”. i.e. if patient forgets and asks what category they are on, you can remind them.
• **However, you cannot correct them unless they specifically ask.**
  i.e. don’t correct the patient unless they ask for guidance.
LETTER FLUENCY TEST

Instructions

“This time I’m going to give you a letter of the alphabet and ask you to name as many different words as you can think of that start with that letter. I don’t want you to include the names of people or places. You’ll have one minute to think of as many different words as you can. Try not to give the same words with different endings, e.g. run, runner and running.”

“Now go ahead and tell me all the different words that you can think of that start with the letter F.”

Repeat the above instructions for the letters A and S.

SCORING LETTER FLUENCY

Proper Names and Place Names are scored as Intrusions because subject has been told explicitly NOT to give such words

However, other proper names e.g. Friday, August, Sabbath are accepted because the instruction only mentions People and Places and not Proper nouns per se.

Groups of words such as “run, runner, running” would be scored as 1 correct response and 2 perseverations if testing for words beginning with the letter r.

active, activate – would be scored as 2 correct responses

sink, sunk – again would score 2 correct responses because subject was not given an explicit instruction not to make new words by changing tenses

pill, pillbox – scored as 2 correct responses (because they are two separate entries in the dictionary)

frying pan, full moon – these are compound nouns and are therefore scored as correct responses.

If in doubt, CONSULT A DICTIONARY to see if the word given is a noun. As a rule of thumb, if the word has a separate entry to a similar word (as for pill and pillbox, above) it is scored as a correct response.
NAMING TO DESCRIPTION

This should be done after the fluencies and before all the other tests.

**Say:** “I’m going to read you some descriptions of different things and I want you to tell me what I have described.”
For each description, ask the subject “What do we call….”

The best thing to do is to alternate between functional and perceptual descriptions. Do one definition for each object in one session, and the other in a second session.

This still takes a very long time to do, so you may want to decide if you will only do one or both descriptions for each object within this testing round.
NAMING TEST

1. Ensure the cards are in the correct order.
2. Sit opposite the subject, with the cards in a pile facing them.
3. **TAPE THIS TEST**
4. Say: “I’m going to show you some pictures, I want you to tell me what they are, what you would call each of them.”
5. Depending on how impaired the subject is, you can either turn the cards over for them or let them do it themselves.
6. If the subject says something like bird or brush or animal, ask them to be more specific.
7. Record all responses – a completely correct response can be recorded simply with a tick (check mark). Incorrect names/descriptions instead of names should be recorded verbatim using IPA, if necessary, to record any phonemic errors.

There is a list of acceptable responses that we have built up, but it is not comprehensive (see below). You will need to decide, for each item, what you think is acceptable or not, especially since this list was built up for speakers of British English.

<table>
<thead>
<tr>
<th>No.</th>
<th>ITEM</th>
<th>Acceptable Response</th>
<th>Unacceptable response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>helicopter</td>
<td></td>
<td>chopper, autogyro, aeroplane</td>
</tr>
<tr>
<td>2.</td>
<td>mouse</td>
<td>rat</td>
<td>mice</td>
</tr>
<tr>
<td>3.</td>
<td>toaster</td>
<td></td>
<td>toasting rack</td>
</tr>
<tr>
<td>4.</td>
<td>strawberry</td>
<td></td>
<td>fruit</td>
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<tr>
<td>5.</td>
<td>suitcase</td>
<td>case</td>
<td>briefcase, holiday bag, luggage</td>
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<tr>
<td>6.</td>
<td>cat</td>
<td>kitten</td>
<td></td>
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<tr>
<td>7.</td>
<td>bicycle</td>
<td>bike, pushbike, cycle</td>
<td>motorbike</td>
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<td>8.</td>
<td>apple</td>
<td></td>
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<tr>
<td>9.</td>
<td>rabbit</td>
<td>hare</td>
<td></td>
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<td>10.</td>
<td>sledge</td>
<td>toboggan, sleigh, sled</td>
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<tr>
<td>11.</td>
<td>dustbin</td>
<td>garbage can, bin</td>
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<td>12.</td>
<td>frog</td>
<td>toad</td>
<td></td>
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<td>13.</td>
<td>tomato</td>
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<td>14.</td>
<td>lorry</td>
<td>truck</td>
<td>van</td>
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<td>15.</td>
<td>cow</td>
<td></td>
<td>bull</td>
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<td>16.</td>
<td>watering can</td>
<td></td>
<td>sprayer, water can</td>
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<td>17.</td>
<td>pineapple</td>
<td></td>
<td></td>
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<td>18.</td>
<td>bus</td>
<td>coach, charabanc</td>
<td></td>
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<td>19.</td>
<td>stool</td>
<td></td>
<td>chair, seat</td>
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<td>20.</td>
<td>dog</td>
<td></td>
<td>apple</td>
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<tr>
<td>21.</td>
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<td>hamper</td>
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<td>22.</td>
<td>basket</td>
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<tr>
<td>23.</td>
<td>train</td>
<td>diesel engine, locomotive</td>
<td></td>
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<tr>
<td>24.</td>
<td>squirrel</td>
<td></td>
<td></td>
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<td>pear</td>
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<td></td>
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<td>26.</td>
<td>horse</td>
<td>pony</td>
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<td>27.</td>
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<td>motorcycle</td>
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<td>banana</td>
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<td>barrel</td>
<td>cask</td>
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<tr>
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<td>plane</td>
<td>aeroplane, jet</td>
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<td>31.</td>
<td>orange</td>
<td>grapefruit</td>
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<tr>
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<td>piano</td>
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<td>33.</td>
<td>tortoise</td>
<td>turtle</td>
<td></td>
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<td>34.</td>
<td>pliers</td>
<td>pincers</td>
<td></td>
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<td>key</td>
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<td>penguin</td>
<td></td>
<td></td>
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<td>37.</td>
<td>axe</td>
<td>chopper, hatchet</td>
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<tr>
<td>38.</td>
<td>monkey</td>
<td>baboon</td>
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<td>toothbrush</td>
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<td></td>
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<td>40.</td>
<td>eagle</td>
<td>hawk, falcon</td>
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<tr>
<td>41.</td>
<td>saw</td>
<td></td>
<td></td>
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<td>42.</td>
<td>rhino</td>
<td>hippo</td>
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<td>43.</td>
<td>plug</td>
<td></td>
<td></td>
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<td>44.</td>
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<td>hen</td>
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<td>45.</td>
<td>spanner</td>
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<td>46.</td>
<td>kangaroo</td>
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<td>47.</td>
<td>glass</td>
<td>tumbler</td>
<td></td>
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<td>48.</td>
<td>duck</td>
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<td>49.</td>
<td>scissors</td>
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<td>camel</td>
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<td>51.</td>
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<td>letter</td>
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<tr>
<td>52.</td>
<td>owl</td>
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<tr>
<td>53.</td>
<td>paintbrush</td>
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<tr>
<td>54.</td>
<td>tiger</td>
<td></td>
<td></td>
</tr>
<tr>
<td>55.</td>
<td>comb</td>
<td></td>
<td></td>
</tr>
<tr>
<td>56.</td>
<td>swan</td>
<td></td>
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<td>57.</td>
<td>screwdriver</td>
<td></td>
<td></td>
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<td>58.</td>
<td>elephant</td>
<td></td>
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<td>59.</td>
<td>candle</td>
<td></td>
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<td>60.</td>
<td>ostrich</td>
<td>emu</td>
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<tr>
<td>61.</td>
<td>alligator</td>
<td>crocodile</td>
<td></td>
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<tr>
<td>62.</td>
<td>brush</td>
<td>hairbrush, clothes brush</td>
<td></td>
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<tr>
<td>63.</td>
<td>peacock</td>
<td>peahen</td>
<td></td>
</tr>
<tr>
<td>64.</td>
<td>hammer</td>
<td></td>
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</tbody>
</table>
CATEGORY SORTING TEST

CATEGORY SORTING TEST: INSTRUCTIONS

The instructions are the same for both the Picture and the Word versions. Give the pictures first in session 1, and the words in session 2.

Introduction - say something along these lines:

“Now I’m going to show you some cards with pictures [words] on them. This time you don’t have to name them. I’m going to ask you to sort them out in various ways.

For each of the sort categories below, follow these instructions.

1. Before each sort:
   - Make sure all of the cards necessary for the current sort are separated from the others.
   - Shuffle the cards well. The top cards must be arranged as follows: for each sort there are $n$ categories, and the top $n$ cards MUST contain one card from each category.

2. Place the key cards facing the subject and ask the subject to read the labels aloud.

3. Give all of the relevant cards to the subject face-up.

4. Ask the subject if the first card belongs to sort category $A$ or sort category $B$. For example say “Is this an animal, a bird or a fruit” or “Does this item have any wooden parts or no wooden parts at all?”.

5. According to the response, place the card face down in front of the appropriate label.

6. Then ask the subject about the second item and again place the card face down as indicated.

7. Continue in this manner for the first 5 cards.

8. Allow the subject to sort the remaining cards without help.
9. Record the number correct and the errors.

**NOTE:** Often subjects will say that an item could belong to either of the categories. Indicate that there is no right or wrong answer, and that they should decide which is the most appropriate choice in their opinion.

**SORT CATEGORIES**

**Level 1**

LIVING versus MAN-MADE (Use ALL 64 cards)

**Level 2**

a) ANIMALS, BIRDS and FRUIT (Use the cards for LIVING items only)

b) HOUSEHOLD ITEMS, TOOLS and VEHICLES (use the cards for MAN-MADE items only).

**Level 3**

1. **Remove the FRUIT and VEHICLES categories.**

   a) Use the 24 ANIMALS and BIRDS picture [word] cards only
   
   FOREIGN ANIMALS versus NATIVE ANIMALS
   NOTE: explain that native means those animals living in the wild in Britain.
   
   LARGER THAN A MAN versus SMALLER THAN A MAN
   
   MEAT-EATING versus NON-MEAT EATING

   b) Use the 24 HOUSEHOLD ITEMS and TOOLS picture [word] cards only.
   
   MADE MAINLY OF METAL versus NOT MADE MAINLY
   
   WOODEN PARTS versus NO WOODEN PARTS
   
   WILL FIT IN YOUR POCKET versus WILL NOT FIT IN YOUR POCKET

**SCORING**

**Level 1**

LIVING (32)
MANMADE (32)
**Level 2**

a) **LAND ANIMALS** (16)
Mouse, cat, rabbit, frog, cow, dog, squirrel, horse, tortoise, monkey, rhino, kangaroo, camel, elephant, alligator, tiger

**BIRDS** (8)
Penguin, eagle, chicken, duck, owl, swan, ostrich, peacock

**FRUIT** (8)
Strawberry, tomato, pineapple, cherry, pear, banana, orange, apple

b) **HOUSEHOLD ITEMS** (16)
Suitcase, dustbin, watering can, stool, basket, barrel, toaster, piano, key, toothbrush, plug, glass, comb, candle, brush, envelope

**TOOLS** (8)
Pliers, axe, spanner, scissors, paintbrush, screwdriver, hammer, saw

**VEHICLES** (8)
Train, bus, lorry, bicycle, motorbike, sledge, helicopter, aeroplane

**Level 3**

a) **FOREIGN ANIMALS** (11)
Penguin, monkey, rhino, kangaroo, camel, tiger, elephant, ostrich, alligator, peacock, tortoise

**NATIVE BRITISH ANIMALS** (13)
Squirrel, frog, chicken, cow, duck, rabbit, swan, horse, cat, mouse, owl, dog, eagle

**LARGER THAN A MAN** (9)
Horse, cow, ostrich, alligator, kangaroo, rhino, tiger, elephant, camel

**SMALLER THAN A MAN** (15)
Eagle, monkey, dog, peacock, owl, mouse, penguin, tortoise, cat, swan, rabbit, duck, hen, frog, squirrel

**MEAT EATING** (7)
Alligator, tiger, eagle, dog, penguin, cat, owl
NON-MEAT EATING (VEGETARIAN) (17)
Ostrich, kangaroo, rhino, elephant, monkey, swan, rabbit, frog, horse, cow, camel, Peacock, hen, duck, mouse, tortoise, squirrel

b) MADE MAINLY OF METAL (10)
Spanner, screwdriver, axe, key, watering can, hammer, saw, scissors, pliers, toaster

NOT MADE MAINLY OF METAL (14)
Basket, candle, glass, toothbrush, envelope, suitcase, paintbrush, plug, dustbin, stool, barrel, comb, piano, brush

WOODEN PARTS (9)
Hammer, piano, brush, basket, stool, barrel, paintbrush, saw, axe

NO WOODEN PARTS (15)
Watering can, pliers, key, scissors, screwdriver, spanner, toaster, comb, dustbin, plug, suitcase, envelope, toothbrush, glass, candle

FITS IN POCKET (14)
Plug, brush, paintbrush, screwdriver, candle, pliers, key, hammer, spanner, comb, envelope, scissors, toothbrush, glass

DOES NOT FIT IN POCKET (10)
Toaster, piano, dustbin, barrel, stool, basket, watering can, suitcase, axe, saw

These correct answers were decided upon when the test was designed. There are some items that could belong in more than one category, but those items are only scored as being correct if they are placed in the category that was originally chosen for them.
**CATEGORY COMPREHENSION**

**Say:** “Here we have some pictures of animals. I am going to say the name of one of them and I would like you to point to it.”

These instructions can be repeated for each page (changing animals to household objects, birds, etc as appropriate), or the word can just be read out depending on how quickly the subject picks up the idea of the test.

Don’t tell the subject if they are right or wrong. Encourage the subject to guess if they are not sure.

Mark down both correct and incorrect answers (i.e. which one they picked if wrong).

Make sure you work **DOWN** the results table.
** TAPE THIS TEST **

Say: “How would you describe a SPIDER to someone who has never seen or heard of one before?

Note down everything that the subject says. If there is not much detail, you can prompt by saying: “you could have mentioned that they have 8 legs, that many spiders spin webs, that some spiders are poisonous…etc” depending on what information the subject has already given.

NEXT
Say: “How would you define a WATCH to someone who has never seen or heard of one before?

Note down everything that the subject says. If there is not much detail, you can prompt by saying: “you could have mentioned that watches are usually worn on the wrist, that they are used to tell the time, that they usually have a round glass face through which you can see numbers and two hands….etc” depending on what information the subject has already given.

If you are satisfied that the subject has understood what is required move on to the test items. Work through the items in order, noting all responses.
CAMEL & CACTUS

Say: “Here are some pictures. I would like you to choose which one of the bottom four pictures [POINT TO EACH OF THE FOUR PICTURES AS YOU SAY THIS] you think goes best with the picture at the top of the page [POINT TO TOP PICTURE].”

“The first four items are practice items so we can go through these together”

Work through items P1 to P4 with the subject. Get them to pick a picture. If they choose incorrectly, then say “Actually it is this, because:
- wine is made from grapes
- koalas live in Australia
- cacti grow in deserts
- For the final practice item, do NOT give the subject the correct answer if they have made an error as this pair occurs later in the actual test when the test item is a hammer which would be correctly paired with the nail.

Move on to the test items.
Give NO help with the remaining items.
Encourage the subject to guess if necessary, i.e. to choose an answer even if they cannot see an obvious connection.

If they do not know what a particular picture is, do NOT tell them.