

MaLT 5 is one of ten pencil-and-paper tests in the **Mathematics Assessment for Learning and Teaching** series, and is for use with pupils aged 4:0 to 6:5 years. **MaLT 5** consists of 30 mark points and whilst pupils should be allowed enough time to attempt all of the questions, it will take approximately 45 minutes.

Ensure that any support material around the classroom – such as number lines, multiplication tables or other mathematical posters – are taken down or covered up for the duration of these tests.

- 1 Each pupil will need a test booklet, and a pen or pencil. Rubbers may be used.
- 2 You will need the Teacher Script (below) from which to read aloud the test questions to the children.
- 3 Instruct the pupils to fill in their details on the front cover (or do this for them in advance).
- 4 Remind the children:
 - The questions will be read out to you and repeated if necessary.
 - Do any working on the booklet itself.
 - If you make a mistake, cross (or rub) it out and write the correct answer clearly.
- 5 When everyone is ready, tell the pupils to open their booklets. Begin the test, following the wording given in the Teacher Script. Pupils should be given as long as necessary to complete each question before moving on, but try to maintain a fairly brisk pace and give the whole test in a single session. These tests will normally take about 45 minutes.
- 6 You should answer questions concerning the test procedure or unfamiliar contexts, but should not explain any mathematical terms.

Teacher script

- 1 Circle 5 candles.
- 2 Put a tick in the **square** shape.
- 3 Jack made a shape by sticking together these 4 straws.
Put a tick in the shape Jack made.
- 4 A number has fallen off the calculator. What is the missing number?
Circle it.
- 5 Circle the domino that has 6 dots altogether.
- 6 6 boys and 9 girls were at the party.
How many **more** girls than boys were there?
- 7 Amy wakes up at 7 o'clock.
Circle the clock that shows 7 o'clock.
- 8 Lisa is **taller** than Paula.
Circle Lisa.

- 9 A triangle has 3 **straight** lines.
Circle all the triangles you can see in the picture.
- 10 Look at the picture of John's socks.
How many socks has John got **altogether**?
Circle your answer.
- 11 Circle the child who has **more** stars.
- 12 Circle the **shortest** tree.
- 13 George ate 7 biscuits. Susan ate 3.
How many **more** biscuits did George eat than Susan?
- 14 One card shows the number 3. Circle it.
- 15 Circle the shape that comes **next**.
- 16 Circle the child who has **more** bears.
- 17 Look at the house in the picture. What is **in front of** the house? Circle it.
- 18 Each bun has 2 cherries.
Circle the number of cherries on **three** buns.
- 19 Count the number of beads on this necklace. Circle your answer.
- 20 Write the number on the page that comes **just after** 9.
- 21 Jerry has made one of these masks.
His face is a **square**. His hat is a **triangle**.
Circle Jerry's mask.
- 22 Circle the number of party hats **altogether**.
- 23 7 children want to paint. There are only 4 paintbrushes.
How many children **haven't** got a paintbrush?
- 24 Put these number cards in order **from smallest to largest**.
The first one has been done for you.
- 25 One car has 4 wheels.
Write the number of wheels on 2 cars **altogether**.
- 26 Nita has 5 cakes. If she eats 2, how many will be left?
- 27 There are 6 apples in a pack.
There are also 3 apples loose.
Circle the number of apples **altogether**.
- 28 Write the number on the page that comes **just before** seven.
- 29 Circle **all** the cards that add up to 10. The first one has been done for you.
- 30 There are 3 tennis balls in a pack.
There are also 5 tennis balls loose.
Circle the number of tennis balls **altogether**.

The objective descriptions for correct answers have been taken/adapted from the Primary Framework and National Curriculum level descriptors.

Question	Code	Response	Objective/Error Description
1 (CN)	✓	5 circled	Count reliably up to 10 everyday objects
	error 3	4 or 6 circled	miscounted single-digit sets of objects by one, suggesting skipping or repeating
2 (Sh)	✓	D	Visualise and name common 2-D shapes
	error 3	A or B	mis-named a rectangle as a 'square', suggesting a shape misconception
3 (Sh)	✓	A	Visualise and name common 2-D shapes ... and describe their features
	error 3	B or D	matched the <i>number</i> of sides only, suggesting they only attend to one condition when a two-condition problem is visibly presented
	error 4	C	matched <i>lengths</i> of sides only, suggesting they only attend to one condition when a two-condition problem is visibly presented
4 (CN)	✓	5	Recognise numerals 1 to 9
5 (NF)	✓	A	Select two groups of objects to make a given total of objects
	error 3	C only, or with A	misunderstood the calculation in this task, perhaps not knowing what 'altogether' means
6 (Ca)	✓	3	Begin to relate addition to combining two groups of objects and subtraction to 'taking away'
	error 3	9	counted all the set rather than 'how many more', suggesting a misinterpretation of the task, and the phrase 'how many more'
	error 4	4	made a counting error suggesting that the 'visible difference' in the arrays to be compared are attended to inappropriately
7 (Me)	✓	7 o'clock (bottom left)	Read the time to the hour and half hour
8 (Me)	✓	Left picture	Use language such as 'greater', 'smaller', 'heavier' or 'lighter' to compare quantities

Question	Code	Response	Objective/Error Description
9 (Sh)	✓	A, D and E	Visualise and name common 2-D shapes ... and describe their features
	error 3	any 2 correct and C included	named curved-sided object as polygon: misconception of triangle; missed some triangles, suggesting a limited, prototypical concept of triangle
	error 4	all 3 correct but also including C	named curved-sided object as polygon: misconception of triangle
	error 5	only one or two correct	missed some triangles, suggesting a limited, prototypical concept of triangle
10 (CN)	✓	7	Count reliably up to 10 everyday objects
	error 3	6 or 8	mis-wrote a single-digit number of a set of objects
11 (CN)	✓	girl	Use language such as 'more' or 'less' to compare two numbers
12 (Me)	✓	shortest (3rd)	Use language such as 'greater', 'smaller', 'heavier' or 'lighter' to compare quantities
13 (Ca)	✓	4	Understand subtraction as 'take away' and find a 'difference' by counting up
	error 3	7	counted the larger of the two sets to be compared, suggesting a misunderstanding of the question 'how much'
	error 4	10 or 11	attempted to count all the visible objects in a set-comparison task
14 (CN)	✓	3rd card	Recognise numerals 1 to 9
15 (Sh)	✓	cube (left)	Use familiar objects and common shapes to create and recreate patterns and build models
	error 3	cylinder	interpreted 'pattern' as alternating shapes, suggesting limited/prototypical conception of pattern
16 (CN)	✓	boy (bottom)	Use language such as 'more' or 'less' to compare two numbers
	error 3	girl (top)	was distracted from counting arrays of objects when comparing number by the length/spread of the arrays, suggesting a 'more is longer' misconception
17 (Sh)	✓	chickens	Visualise and use everyday language to describe the position of objects and direction and distance when moving them
	error 3	chickens and girl	misinterpreted 'in front of' in figure
18 (NF)	✓	6	Count on or back in ones, twos, fives and tens and use this knowledge to derive the multiples of 2, 5 and 10 to the tenth multiple
	error 3	2 or 3	recorded a number presented in the problem or visible in the figure, suggesting lack of understanding of the multiplication word-problem
	error 4	1	subtracted instead of multiplied, suggesting misunderstanding of the word-problem

Question	Code	Response	Objective/Error Description
19 (CN)	✓	9	Count reliably up to 10 everyday objects
	error 3	8 or 10	was distracted from accurately counting a set of objects by complex arrangement, suggesting losing starting or finishing object in the sequence
20 (NF)	✓	10	Find one more or one less than a number from 1 to 10
	error 3	8	confused 'next' with 'previous' number
	error 4	01	knows next single-digit number, but wrote the digit incorrectly/wrong way round
21 (Sh)	✓	B	Use familiar objects and common shapes to create and recreate patterns and build models
	error 3	A	missed one of the conditions in a two-condition problem
22 (CN)	✓	8	Count reliably up to 10 everyday objects
	error 3	6 only or both 2 and 6	counted the two sets separately, suggesting a lack of understanding of 'altogether'
23 (Ca)	✓	3	Understand subtraction as 'take away' and find a 'difference' by counting up
	error 3	4 or 7	misunderstood the counting-up problem and performed inappropriate calculation
	error 4	3 children circled	understood the counting-up word problem, but counted/recorded incorrectly
24 (CN)	✓	4, 5, 6	Compare and order numbers, using the related vocabulary
	error 3	6, 5, 4	mis-ordered numbers, suggesting misunderstanding of term/concept of 'order'
25 (NF)	✓	8	Recall the doubles of all numbers to at least 10
	error 3	2 or 4	counted visible objects in figure instead of attending to the word-problem
	error 4	7	interpreted doubling problem appropriately but mis-calculated
26 (Ca)	✓	3	Understand subtraction as 'take away' and find a 'difference' by counting up
	error 3	4	counted down incorrectly
	error 4	7	interpreted the counting-down problem as an addition problem
	error 5	2	misunderstood a counting-down problem
27 (CN)	✓	9	Count reliably up to 10 everyday objects
	error 3	8	counted-on inaccurately
	error 4	6	counted down instead of adding on in a counting-on/addition task
	error 5	3	misunderstood a counting-on/addition task

Question	Code	Response	Objective/Error Description
28 (NF)	✓	6	Find one more or one less than a number from 1 to 10
	error 3	8	confused 'previous' and 'next' digits/numbers
	error 4	rotated and/or reflected 6	correctly interprets 'previous number' but writes digits incorrectly (reflected or rotated)
29 (NF)	✓	5+5, 2+8	Derive and recall all pairs of numbers with a total of 10 and addition facts for totals to at least 5
	error 3	5+5 only or 2+8 only	recognised some but not all the number bonds to ten
	error 4	5+5 and incorrect or 2+8 and incorrect	made some errors in number bonds to ten
30 (Ca)	✓	8	Relate addition to counting on
	error 3	5	counted only the visible objects, suggesting the inability as yet to count 'invisible' objects not individually represented
	error 4	3	counted only the visible objects, or recorded visible numerals, suggesting the inability as yet to count 'invisible' objects not individually represented
	error 5	9	was able to perceive the 'invisible' objects to be counted-on, but slipped up in counting-on