

2016 Mathematics and Science Key Stage 1 Interim Teacher Assessment Frameworks

To demonstrate that pupils have met a standard, teachers will need to have evidence that a pupil demonstrates attainment of **all** of the statements within that standard **and all** the statements in the preceding standard(s). Science has expected statements only.

Mathematics	Science	
The pupil can:	The first statements relate to working scientifically, which must be taught through, and clearly related to, the teaching of substantive science content in the programme of study.	
demonstrate an understanding of place value, though may still need to use apparatus to support them (e.g. by stating the difference in the tens and ones between 2 numbers i.e. 77 and 33 has a difference of 40 for the tens and a difference of 4 for the ones; by writing number statements such as $35 < 53$ and $42 > 36$).	The pupil can:	
count in twos, fives and tens from 0 and use counting strategies to solve problems (e.g. count the number of chairs in a diagram when the chairs are organised in 7 rows of 5 by counting in fives).		
read and write numbers correctly in numerals up to 100 (e.g. can write the numbers 14 and 41 correctly).		ask their own questions about what they notice
use number bonds and related subtraction facts within 20 (e.g. $18 = 9 + ?$; $15 = 6 + ?$).		use different types of scientific enquiry to gather and record data, using simple equipment where appropriate, to answer questions including:
add and subtract a two-digit number and ones and a two-digit number and tens where no regrouping is required (e.g. $23 + 5$; $46 + 20$), they can demonstrate their method using concrete apparatus or pictorial representations.		
recall doubles and halves to 20 (e.g. pupil knows that double 2 is 4, double 5 is 10 and half of 18 is 9).		observing changes over time
recognise and name triangles, rectangles, squares, circles, cuboids, cubes, pyramids and spheres from a group of shapes or from pictures of the shapes.	noticing similarities, differences and patterns	
The pupil can:	grouping and classifying things	
partition two-digit numbers into different combinations of tens and ones. This may include using apparatus (e.g. 23 is the same as 2 tens and 3 ones which is the same as 1 ten and 13 ones).	carrying out simple comparative tests	
add 2 two-digit numbers within 100 (e.g. $48 + 35$) and can demonstrate their method using concrete apparatus or pictorial representations.	finding things out using secondary sources of information	
use estimation to check that their answers to a calculation are reasonable (e.g. knowing that $48 + 35$ will be less than 100).	use appropriate scientific language from the national curriculum to communicate their ideas in a variety of ways, what they do and what they find out	
subtract mentally a two-digit number from another two-digit number when there is no regrouping required (e.g. $74 - 33$).		
recognise the inverse relationships between addition and subtraction and use this to check calculations and work out missing number problems (e.g. $\Delta - 14 = 28$).	The remaining statements relate to the science content (This may have been covered over the whole Key Stage).	
recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables to solve simple problems, demonstrating an understanding of commutativity as necessary (e.g. knowing they can make 7 groups of 5 from 35 blocks and writing $35 \div 5 = 7$; sharing 40 cherries between 10 people and writing $40 \div 10 = 4$; stating the total value of six 5p coins).		
identify $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{2}$, $\frac{2}{4}$, $\frac{3}{4}$ and knows that all parts must be equal parts of the whole.	The pupil can:	
use different coins to make the same amount (e.g. pupil uses coins to make 50p in different ways; pupil can work out how many £2 coins are needed to exchange for a £20 note).	name and locate parts of the human body, including those related to the senses, and describe the importance of exercise, balanced diet and hygiene for humans	
read scales in divisions of ones, twos, fives and tens in a practical situation where all numbers on the scale are given (e.g. pupil reads the temperature on a thermometer or measures capacities using a measuring jug).	describe the basic needs of animals for survival and the main changes as young animals, including humans, grow into adults	
read the time on the clock to the nearest 15 minutes.		
describe properties of 2-D and 3-D shapes (e.g. the pupil describes a triangle: it has 3 sides, 3 vertices and 1 line of symmetry; the pupil describes a pyramid: it has 8 edges, 5 faces, 4 of which are triangles and one is a square).	describe basic needs of plants for survival and the impact of changing these and the main changes as seeds and bulbs grow into mature plants	
The pupil can:	identify whether things are alive, dead or have never lived	
reason about addition (e.g. pupil can reason that the sum of 3 odd numbers will always be odd).	describe and compare the observable features of animals from a range of groups	
use multiplication facts to make deductions outside known multiplication facts (e.g. a pupil knows that multiples of 5 have one digit of 0 or 5 and uses this to reason that 18×5 cannot be 92 as it is not a multiple of 5).		
work out mental calculations where regrouping is required (e.g. $52 - 27$; $91 - 73$).	group animals according to what they eat, describe how animals get their food from other animals and/or from plants, and use simple food chains to describe these relationships	
solve more complex missing number problems (e.g. $14 + \square - 3 = 17$; $14 + \Delta = 15 + 27$).		
determine remainders given known facts (e.g. given $15 \div 5 = 3$ and has a remainder of 0, pupil recognises that $16 \div 5$ will have a remainder of 1; knowing that $2 \times 7 = 14$ and $2 \times 8 = 16$, pupil explains that making pairs of socks from 15 identical socks will give 7 pairs and one sock will be left).	describe seasonal changes	
solve word problems that involve more than one step (e.g. which has the most biscuits, 4 packets of biscuits with 5 in each packet or 3 packets of biscuits with 10 in each packet?).	name different plants and animals and describe how they are suited to different habitats	
recognise the relationships between addition and subtraction and can rewrite addition statements as simplified multiplication statements (e.g. $10 + 10 + 10 + 5 + 5 = 3 \times 10 + 2 \times 5 = 4 \times 10$).		
find and compare fractions of amounts (e.g. $\frac{1}{4}$ of £20 = £5 and $\frac{1}{2}$ of £8 = £4 so $\frac{1}{4}$ of £20 is greater than $\frac{1}{2}$ of £8).	use their knowledge and understanding of the properties of materials, to distinguish objects from materials, identify and group everyday materials, and compare their suitability for different uses.	
read the time on the clock to the nearest 5 minutes.		
read scales in divisions of ones, twos, fives and tens in a practical situation where not all numbers on the scale are given.		
describe similarities and differences of shape properties (e.g. finds 2 different 2-D shapes that only have one line of symmetry; that a cube and a cuboid have the same number of edges, faces and vertices but can describe what is different about them).		

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Key:
Working towards the expected standard
Working at the expected standard
Working at greater depth within the expected standard



Reading, Writing and Mathematics
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