Interim teacher assessment framework at the end of key stage 2 - mathematics

Working at the expected standard

- The pupil can demonstrate an understanding of place value, including large numbers and decimals
  (e.g. what is the value of the '7' in 276,541?;
  find the difference between the largest and smallest whole numbers that can be made from using three digits;
  $8.09 = 8 + \frac{9}{?}$;
  $28.13 = 28 + \square + 0.03$).
- The pupil can calculate mentally, using efficient strategies such as manipulating expressions using commutative and distributive properties to simplify the calculation
  (e.g. $53 - 82 + 47 = 53 + 47 - 82 = 100 - 82 = 18$;
  $20 \times 7 \times 5 = 20 \times 5 \times 7 = 100 \times 7 = 700$;
  $53 \div 7 + 3 \div 7 = (53 + 3) \div 7 = 56 \div 7 = 8$).
- The pupil can use formal methods to solve multi-step problems
  (e.g. find the change from £20 for three items that cost £1.24, £7.92 and £2.55;
  a roll of material is 6m long: how much is left when 5 pieces of 1.15m are cut from the roll?;
  a bottle of drink is 1.5 litres, how many cups of 175ml can be filled from the bottle, and how much drink is left?).
- The pupil can recognise the relationship between fractions, decimals and percentages and can express them as equivalent quantities
  (e.g. one piece of cake that has been cut into 5 equal slices can be expressed as $\frac{1}{5}$ or 0.2 or 20% of the whole cake).
- The pupil can calculate using fractions, decimals or percentages
  (e.g. knowing that 7 divided by 21 is the same as $\frac{7}{21}$ and that this is equal to $\frac{1}{3}$;
  15% of 60;
  $1\frac{1}{2} + \frac{3}{4}$; $\frac{7}{9}$ of 108;
  0.8 x 70).
- The pupil can substitute values into a simple formula to solve problems
  (e.g. perimeter of a rectangle or area of a triangle).
- The pupil can calculate with measures
  (e.g. calculate length of a bus journey given start and end times; convert 0.05km into m and then into cm).
- The pupil can use mathematical reasoning to find missing angles
  (e.g. the missing angle in an isosceles triangle when one of the angles is given;
  the missing angle in a more complex diagram using knowledge about angles at a point and vertically opposite angles).