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| **Year 3 - Building and assessing the conceptual understanding and learning – Measurement** |
| **End of Year Expectations:**Pupils should be taught to: * measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
* measure the perimeter of simple 2-D shapes
* add and subtract amounts of money to give change, using both £ and p in practical contexts
* tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks
* estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o’clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight
* know the number of seconds in a minute and the number of days in each month, year and leap year
* compare durations of events, for example to calculate the time taken by particular events or tasks.
 | **Non-statutory guidance:**Pupils continue to measure using the appropriate tools and units, progressing to using a wider range of measures, including comparing and using mixed units (e.g. 1 kg and 200g) and simple equivalents of mixed units (e.g. 5m = 500cm). The comparison of measures should also include simple scaling by integers (e.g. a given quantity or measure is twice as long or five times as high) and this should connect to multiplication. Pupils continue to become fluent in recognising the value of coins, by adding and subtracting amounts, including mixed units, and giving change using manageable amounts. They record £ and p separately. The decimal recording of money is introduced formally in year 4. Pupils use both analogue and digital 12-hour clocks and record their times. In this way they become fluent in and prepared for using digital 24-hour clocks in year 4.  |
| **Autumn** | **Spring** | **Summer** |
|  During the Autumn Term, take opportunities to consolidate prior learning in measure by using it as a context for understanding number and calculation (e.g. order and compare lengths, weights, time durations etc. related to developing understanding of the number system.)Current understanding and use of measure can also be used and consolidated in the context of statistics.This will enable checks to be carried out in readiness for further learning development over the Spring and Summer terms.  | **Length*** Measure and read scales for a variety of objects using m/cm/mm
* Solve problems which involve comparing, adding and subtracting lengths (m/cm/mm)
* Measure the perimeter of simple 2-D shapes

**Time*** Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour clock. Begin to look at the 24-hour clock – to be developed further in Year 4.
* Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o’clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight
* Know the number of seconds in a minute and the number of days in each month, year and leap year
* Compare durations of events, for example to calculate the time taken by particular events or tasks.
 | **Mass** * Weigh and read a variety of scales for objects using kg/g
* Solve problems which involve comparing, adding and subtracting mass (kg/g)

**Money*** Recognise and use all notes and coins
* Begin to convert pence to pounds and pounds to pence
* Solve problems which involve comparing, adding and subtracting money (notes/coins)

**Capacity*** Measure and read a variety of scales for liquids using l/ml
* Solve problems which involve comparing, adding and subtracting volume (l/ml)
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| **Key questions:**  | **Key questions:*** Can I order and compare lengths / distances (related to my growing understanding of the number system and place value)?
* Can I estimate whether an object or a distance is longer or shorter than a metre, and measure accurately to check?
* Can I measure length / distance accurately, using m and cm, recording these separately with mixed units of measure (e.g. 1m 23cm – NB: the understanding of decimal notation develops in Year 4.)?
* Can I solve problems involving adding and subtracting lengths/distances – using mixed units of measure, and linked to my developing understanding of number and place value?
* Can I solve scaling problems involving measures, using my understanding of multiplication and applying known facts (e.g. working out 5 times a distance or twice a length)?
* Am I beginning to know some simple conversions – e.g. 5m = 500cm – understanding the relationship between units of measure?
* Can I confidently tell and record the time on an analogue clock – (including recognizing roman numerals on clocks)?
* Can I confidently tell the time on a digital 12 hour clock?

**See NCETM “Teaching for Mastery” Year 3 book – measurement**https://www.ncetm.org.uk/public/files/23305581/Mastery\_Assessment\_Y3\_Low\_Res.pdf | **Key questions:*** Can I confidently solve problems involving comparing, adding and subtracting mass (using kg and g) linked to my growing knowledge of the number system and place value?
* Can I record mass using mixed units (kg and g)?
* Can I use scales accurately to weigh objects and quantities (such as ingredients), and begin to talk about simple equivalent units of measure?
* Can I solve problems involving adding and subtracting amounts of money (£ and p), working out simple change?
* Can I demonstrate a working understanding of capacity, using litres and millilitres), solving problems that involve comparing, adding and subtracting quantities of liquid and reading scales accurately?
* Am I beginning to know some simple conversions in the context of mass, time and capacity?
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