

HIAS MOODLE+ RESOURCE

Year 4 Unit Plans: 4.2

Autumn Term

HIAS Maths Team
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Final Version

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Overview

In this document

Year 4 Unit Plans linked to Medium Term Overview

Points to consider when using this resource

These unit plans provide an example of how medium term planning could be developed into units of work. These unit plans will need to be adapted to meet the needs of pupils. The unit plan provides an outline of a possible learning journey with suggestions of types of tasks that could be used. They also identify key prior learning, some common misconceptions and an indication of number fluency pupils need to develop towards automaticity. It is assumed that pupils will have access to appropriate concrete resources to support conceptual understanding and that teachers will use a CPA (concrete, pictorial and abstract) approach to teaching.

Year 4 Unit 4.2 Plan – Addition and Subtraction in the context of Money and Length

This unit is about addition and subtraction in the context of measurement (money and length). There are opportunities for pupils to see a number line can be labelled as 'money' or with cm/ m. Converting between units can be a focus in both money and length using key facts. Extend this to knowing related facts to support mental calculation as well as paper and pencil recording. Adding three quantities encourages pupils to look for a pair of numbers which could be complements to 100 or 1000.

Session	Unit Objectives	Types of task
1-7	- Add and subtract amounts of money to give change using both £ and p to solve problems - Use known and derived facts to work out change from £1 (100p), £10, £100 - Know $100p = £1$; $2 \times 50p = £1$; $10 \times 10p = £1$; $5 \times 20p = £1$; $20 \times 5p = £1$; $50 \times 2p = £1$; relate to multiplication facts/ repeated addition in the context of money. - Record addition and subtraction money calculations using pictorial representations such as a number-line and bar-models. Estimate, compare and calculate money in £ and p Convert between units (£ and p)	Finding totals using different coins, comparing and finding the difference between the two totals. Record using addition and subtraction number sentences and bar models Eg Tim has 94p, which coins could he have in his purse? He finds 78p more. How much has he got altogether? Which totals can you make using only 2ps (5ps, 50ps etc)?: 76p, 38p, 41p Sally has £3.75 and Bill has £4.05. They only have silver coins- which coins could they each have? Who has the most? How much more? Shopping: Add three amounts (noticing any number bonds to 100/1000) eg A meal choice: drink + main +dessert Drinks: £1.50, £1.25; main: £7.50; £6.25; dessert: £5; £4.75 Finding change as how much is left /'taking away' in a problem context eg pocket money From a £1 (mental strategies) From £5 eg 75p; £3.75; £4.76 From £10 eg 95p; £2.95; £5.95; £6.05
8-10	Measure and calculate the perimeter of a rectilinear figure (including squares) in cm and m Convert between units (km to m, m to cm, cm to mm (x) and vice versa (÷)) - Know $1000m = 1km$	Key facts focus: Use PV chart for conversion of units multiplying and dividing by 10 and 100 Eg $240mm = 24cm$, $150cm = 1.5m$, $500cm = 5m$, $2300 = 2km$ 3m

	- Derive $500\text{m} = \frac{1}{2}\text{ km}$, $250\text{ m} = \frac{1}{4}\text{ km}$, $750\text{ m} = \frac{3}{4}\text{ km}$ and $100\text{m} = \frac{1}{10}\text{ km}$ Solve problems involving all of the above Order and compare numbers beyond 1000 (represent on number lines)	Finding perimeter of different shapes and problem contexts eg fences and fields (use different units to use key facts and conversion of units). A farmer has a length of fencing to make a rectangular enclosure for his goats. Each side must be a multiple of 50. He uses 800 m of fencing altogether. What length could the sides be? Farmer Tina needs to buy fencing to keep in a herd of cows in her field. The field has 5 equal sides all 375m long. How much fencing will she need? She has already got 2km length of fencing. Has she got enough?
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Check and refresh	Watch out for...	Building fluency towards automaticity
How many p =£1; mm=cm cm=m How many 10p/2p/5p/20p/50p= £1 Counting in 2s, 5s and 10s; 20s,50s Link to use of bar models to show links	When measuring start from 0 not 'the end' of the ruler or measuring tape Incorrect use of decimal point for money when recording pence Using £ and p (either or not both)	Recall and use of key facts to 100 (Y2) and 1000 (Y3) in the context of money and length making links with fractions ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$ of 100 and 1000); linked addition and subtraction facts eg $25+75=100$; $1000-250=750$ and multiplication facts eg $250 \times 4=1000$; $100 \div 4 =25$. Preparing for links to facts to 10,000 by end of Y4

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