

HIAS MOODLE+ RESOURCE

Year 4 Unit Plans: 4.1

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 4.1 Plan – Number and Place Value and Addition and Subtraction

This unit is about developing understanding of number and place value and addition and subtraction. It is important to ensure that pupils have deep understanding of 3-digit numbers and are able to represent numbers using concrete resources and a range of mathematical diagrams and representations. The number line is a key model in securing pupils conceptual understanding of comparing and ordering numbers and to support mental calculation for addition and subtraction. Revisiting key facts about 100 and making links to related key facts for 1000 builds foundations for working with numbers beyond 1000 by the end of the year. Knowing these key facts supports pupils' accuracy when estimating and checking reasonableness of answers.

Session	Unit Objectives	Types of task
1-5	Solve number problems and practical problems involving: Recognise the place value of each digit in a 4-digit number (thousands, hundreds, tens and ones) Up to 10,000 Identify, represent and estimate numbers using different representations including number-lines Find 10 ,100, 1000 more or less than a given number Round any number to the nearest 10,100,1000 (represent on a number line)	Provide practical experiences of using a range of concrete resources to model 3 digit numbers Eg Dienes, arrow cards, place value counters. Combine this with recording the number using number sentences, missing box number sentences, part part part whole; Gattegno chart, place value grid alongside numbers Revise composition of 1000: Addition/ subtraction facts using multiples of 10 to 100 making links to 1000 eg $90+10$; $900+100$ Addition/ subtraction families of facts using multiples of 50 eg $1000-150= 850$ Partition numbers flexibly eg $576= 400 +176$; $500+76$ using part part part whole diagrams Make 3 digit numbers using Dienes and physically add/take 10s and 100 from a number, record the PV equations eg $356 +10=366$ Use number lines to position and compare numbers show where 3 - digit numbers lie compared to multiples of 100, find 10, 100 and 1000 more or less. Relate to making numbers with Dienes. Record comparisons of pairs of numbers using $<$, $>$ Key facts about 1000 and 10,000 using bar models identifying $\frac{1}{2}$, $\frac{2}{4}$;$\frac{1}{4}$, $\frac{3}{4}$ and $\frac{1}{10}$ of 1000 compared to 10,000 eg $\frac{3}{4}$ of 1000 = 750; $\frac{3}{4}$ of 10,000 =7500.
6-15	Y2: Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 Y3: Compare and order numbers from zero up to 1000; using $<$, $>$ and $=$ signs	Problem solving Identify a few key tasks involving addition and subtraction in two-step problems in contexts, deciding which operations and methods to use and why- adapt numbers to reinforce the key concepts and facts from place value work. When solving problems encourage pupils to estimate answers, show solutions using a range of

	• Read and write numbers to at least 1000 in numerals and in words • Y3: Add and subtract numbers mentally including a 3-digit number and ones and a 3-digit number and hundreds. • Estimate the answer to a calculation and use inverse operations to check answers • Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.	representations including: bar model, equation, number line, formal method where appropriate, checking for reasonableness of answers Mental strategies Use unstructured number lines too record mental calculations discussing appropriate strategies depending on the numbers involved
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Check and refresh	Watch out for...	Building fluency towards automaticity
Counting forwards and backwards in multiples of 10 crossing 100s boundary Check PV knowledge of 2/ 3 digit numbers	Mis understanding the use of zero as a place holder. Reading numbers fluently	Recall and use key facts to 100, 1000 • Compare and order numbers using < , > and = signs • Know and use families of facts (add/sub) as related facts, inverse commutativity

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