

Year 3:

National Expectations For Learning



Mathematics

Arithmetic
Problem Solving & Reasoning

Number and Place Value:

Pupils should be taught to:

- count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number
- recognise the place value of each digit in a three-digit number (hundreds, tens, ones)
- compare and order numbers up to 1000
- identify, represent and estimate numbers using different representations
- read and write numbers up to 1000 in numerals and in words
- solve number problems and practical problems involving these ideas.

What is the value of the number represented by the counters in the place value grid?

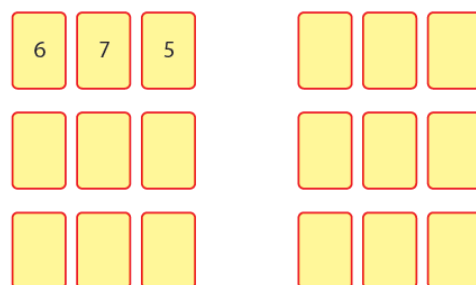
100s	10s	1s

Using all of the counters, how many different numbers can you make?

Megan has made a 3-digit number with these cards.



What other 3-digit numbers can she make with these cards?

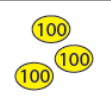





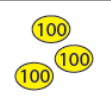





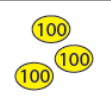







What is the largest number she can make?

Addition & Subtraction:

Pupils should be taught to:

- add and subtract numbers mentally, including:
 - a three-digit number and ones
 - a three-digit number and tens
 - a three-digit number and hundreds
- add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction
- estimate the answer to a calculation and use inverse operations to check answers
- solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.

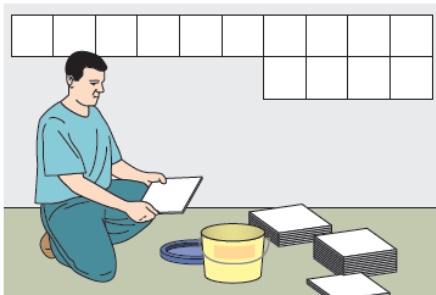
<p>Write the four number facts that this bar model shows</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <tr> <td colspan="2" style="background-color: yellow; padding: 5px;">540</td> </tr> <tr> <td style="background-color: green; padding: 5px;">300</td> <td style="background-color: blue; padding: 5px;">240</td> </tr> </table> <div style="display: flex; flex-direction: column; gap: 10px;"> <div style="display: flex; align-items: center; gap: 10px;"> <input style="width: 40px; height: 25px; border: 1px solid black;" type="text"/> + <input style="width: 40px; height: 25px; border: 1px solid black;" type="text"/> = <input style="width: 40px; height: 25px; border: 1px solid black;" type="text"/> </div> <div style="display: flex; align-items: center; gap: 10px;"> <input style="width: 40px; height: 25px; border: 1px solid black;" type="text"/> + <input style="width: 40px; height: 25px; border: 1px solid black;" type="text"/> = <input style="width: 40px; height: 25px; border: 1px solid black;" type="text"/> </div> <div style="display: flex; align-items: center; gap: 10px;"> <input style="width: 40px; height: 25px; border: 1px solid black;" type="text"/> - <input style="width: 40px; height: 25px; border: 1px solid black;" type="text"/> = <input style="width: 40px; height: 25px; border: 1px solid black;" type="text"/> </div> <div style="display: flex; align-items: center; gap: 10px;"> <input style="width: 40px; height: 25px; border: 1px solid black;" type="text"/> - <input style="width: 40px; height: 25px; border: 1px solid black;" type="text"/> = <input style="width: 40px; height: 25px; border: 1px solid black;" type="text"/> </div> </div>	540		300	240	<p>Solve calculations using a place value grid and equipment alongside a method to demonstrate understanding.</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="padding: 5px;">Hundreds place</th> <th style="padding: 5px;">Tens place</th> <th style="padding: 5px;">Ones place</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">  </td> <td style="padding: 5px;">  </td> <td style="padding: 5px;">  </td> </tr> <tr> <td style="padding: 5px;">  </td> <td style="padding: 5px;">  </td> <td style="padding: 5px;">  </td> </tr> </tbody> </table> <div style="margin-left: 20px; margin-top: 10px;"> <table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td style="padding: 5px;">325</td></tr> <tr><td style="padding: 5px;">+ 247</td></tr> <tr><td style="padding: 5px;">_____</td></tr> </table> </div> <p>Sam has completed these calculations, but he is incorrect. Explain the errors he has made.</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: right; padding-right: 20px;"> $\begin{array}{r} 325 \\ + 247 \\ \hline 581 \end{array}$ </td> <td style="text-align: right;"> $\begin{array}{r} 355 \\ - 247 \\ \hline 112 \end{array}$ </td> </tr> </table>	Hundreds place	Tens place	Ones place							325	+ 247	_____	$\begin{array}{r} 325 \\ + 247 \\ \hline 581 \end{array}$	$\begin{array}{r} 355 \\ - 247 \\ \hline 112 \end{array}$
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Multiplication & Division:

Pupils should be taught to:

- recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables
- write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods
- solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.



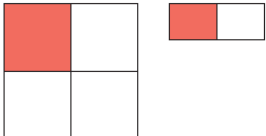
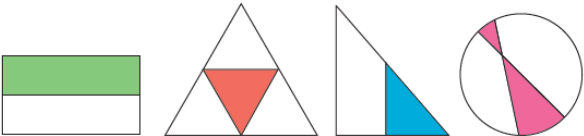
Roger is laying tiles.
He has 84 tiles altogether.
How many complete rows of
tiles can he make?

What is 3×4 ?
What is 13×4 ?

Fractions:

Pupils should be taught to:

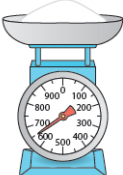

- count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10
- recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators
- recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators
- recognise and show, using diagrams, equivalent fractions with small denominators
- add and subtract fractions with the same denominator within one whole
- compare and order unit fractions, and fractions with the same denominators
- solve problems that involve all of the above.

<p>Hamsa says the diagrams below show that $\frac{1}{4} > \frac{1}{2}$. Do you agree?</p> <p>Explain why.</p> 	<p>True or false? Explain why.</p>  <p>$\frac{1}{2}$ $\frac{1}{3}$ $\frac{1}{2}$ $\frac{1}{4}$</p>
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Measures:

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

<p>What is the mass of flour on the scales?</p> 	<p>How long is the crayon?</p> 
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Money:

- add and subtract amounts of money to give change, using both £ and p in practical contexts

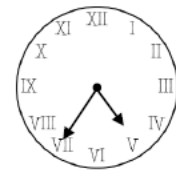
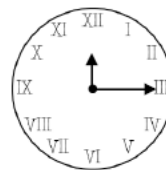
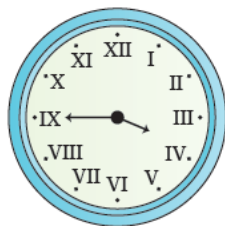
$$£2.60 + \square = £5.00$$

Ellie buys 2 pencils. She pays with a £2 coin and gets 70p change. How much did each pencil cost?

Time:

- 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 and hours; use vocabulary such as o'clock, 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].

Match the two clocks that show the same time.



What time is shown on each clock?

_____ minutes past _____ _____ minutes to _____

Shape:

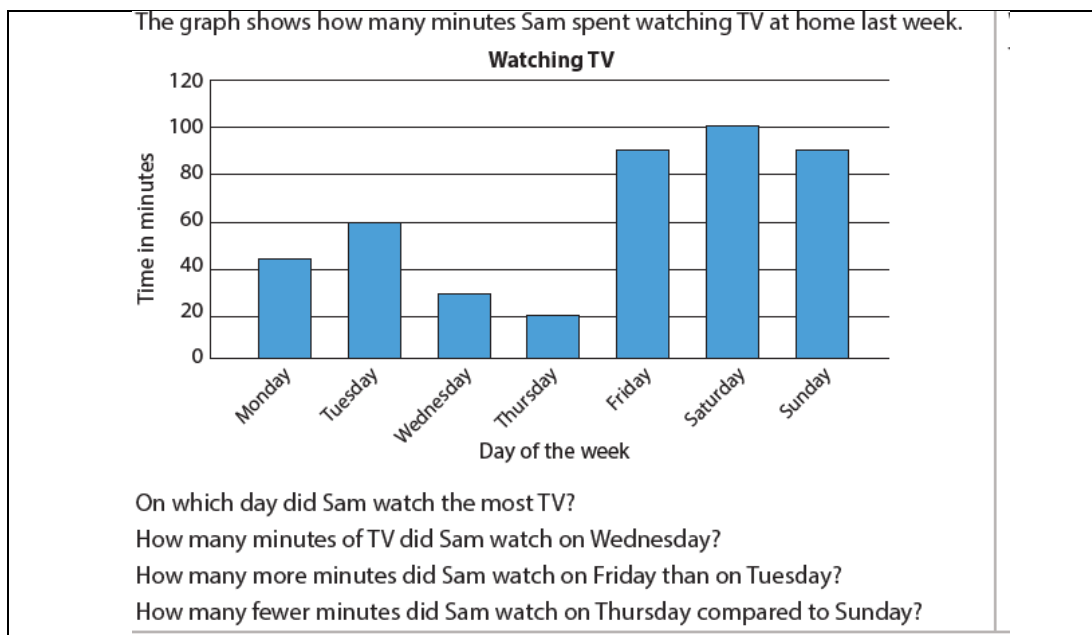
Pupils should be taught to:

- draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them
- recognise angles as a property of shape or a description of a turn
- identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle
- identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

Data and Statistics:

Pupils should be taught to:

- interpret and present data using bar charts, pictograms and tables
- solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.



The following expectations for reading and writing are the expectations by the end of Year 4 (lower key stage 2)

Reading

X2 Reading Papers:
Length & variation of texts



By the end of Year 3 children should read 110 words per minute.

By the end of Year 3 children should be reading at least a brown book band.

Pupils should be taught to:

- develop positive attitudes to reading and understanding of what they read by:
- listening to and discussing a wide range of fiction, poetry, plays, non-fiction and reference books or textbooks
- reading books that are structured in different ways and reading for a range of purposes
- using dictionaries to check the meaning of words that they have read
- increasing their familiarity with a wide range of books, including myths and legends, and retelling some of these orally

- preparing poems and play scripts to read aloud and to perform, showing understanding through intonation, tone, volume and action
- discussing words and phrases that capture the reader's interest and imagination
- recognising some different forms of poetry [for example, free verse, narrative poetry]
- understand what they read, in books they can read independently, by checking that the text makes sense to them, discussing their understanding and explaining the meaning of words in context
- asking questions to improve their understanding of a text
- drawing inferences such as inferring characters' feelings, and motives from their actions, justifying inferences with evidence
- predicting what might happen from details stated and implied
- identifying main ideas drawn from more than one paragraph and summarising these
- identifying how language, structure, and presentation contribute to meaning

Writing

Ongoing teacher assessment
Spelling, Punctuation & Grammar Test (SPAG)



Pupils should be taught to:

- use a range of prefixes and suffixes and understand how to add them (English Appendix 1)
- spell further homophones
- place the possessive apostrophe accurately in words with regular plurals [for example, girls', boys'] and in words with irregular plurals [for example, children's]
- use the first 2/3 letters of a word to check spelling in a dictionary
- extend the range of sentences with more than one clause using a wider range of conjunctions, including when, if, because, although
- use the present perfect form of verbs in contrast to the past
- choose nouns or pronouns appropriately for clarity and cohesion and to avoid repetition

- use conjunctions, adverbs and prepositions to express time and cause
 - use fronted adverbials using a comma after
 - using and punctuating direct speech
- plan their writing by:
- draft and write by composing and rehearsing sentences orally progressively building a varied and rich vocabulary and an increasing range of sentence structures
 - organising paragraphs around a theme
 - in narratives, creating settings, characters and plot
 - in non-narrative material, using simple organisational devices [for example, headings and sub-headings]
 - evaluate and edit by assessing the effectiveness of their own and others' writing and suggesting improvements
 - proposing changes to grammar and
 - proof-read for spelling and punctuation errors
 - read aloud their own writing using appropriate intonation and controlling the tone and volume

Handwriting

Pupils should be taught to:

- use the diagonal and horizontal strokes that are needed to join letters
- increase consistency and quality of their handwriting example, by ensuring that the downstrokes of letters are parallel and equidistant; that lines of writing are spaced sufficiently so that the ascenders and descenders of letters do not touch



Reading and Spelling

The follow list is of words over Year 3 and 4 children need to be able to read and spell.

accident(ally)	early	knowledge	purpose
actual(ly)	earth	learn	quarter
address	eight/eighth	length	question
answer	enough	library	recent
appear	exercise	material	regular
arrive	experience	medicine	reign
believe	experiment	mention	remember
bicycle	extreme	minute	sentence
breath	famous	natural	separate
breathe	favourite	naughty	special
build	February	notice	straight
busy/business	forward(s)	occasion(ally)	strange
calendar	fruit	often	strength
caught	grammar	opposite	suppose
centre	group	ordinary	surprise
century	guard	particular	therefore
certain	guide	peculiar	though/although
circle	heard	perhaps	thought
complete	heart	popular	through
consider	height	position	various
continue	history	possess(ion)	weight
decide	imagine	possible	woman/women
describe	increase	potatoes	
different	important	pressure	
difficult	interest	probably	
disappear	island	promise	

<p>Science</p>	<p>Ask relevant questions using different scientific enquires to answer them including practical enquires and comparative fair tests.</p> <p>Make systematic and careful observations and take accurate measurements</p> <p>Gather, record, classify and present data in a variety of ways to help answer questions</p> <p>Record findings using scientific languages, draws, labelled diagrams, keys, bar charts and tables</p> <p>Report on findings orally, in written explanations, displays and presentations using them to draw simple conclusions</p> <p>Suggest improvements and raise further questions</p> <p>Identify differences and similarities or changes related to scientific ideas</p> <p>Identify and describe the functions of parts of flowering plants and know the requirements for plants to live, including how water is transported and how flowers play a part on the life cycle of plants</p> <p>Identify nutrition animals need and that humans and other animals have skeletons and muscles</p> <p>Compare and group different rocks in terms of appearance and properties.</p> <p>Describe how fossils are formed and how soil is made up of rocks</p> <p>Recognise why we need light to see, how it is reflected from surfaces and how to protect eyes from the sun</p> <p>Recognise how shadows are formed and find patterns in the way they change</p> <p>Compare how things move on different surfaces</p> <p>Observe and predict if magnets attract and repel, name the pole of a magnet and group materials as to whether they are magnetic or not</p>
<p>Art and Design</p>	<p>Plan, alter and refine drawings. Uses different media to achieve variations in line, tone, texture, colour, shape and pattern. Experiments with different effects and textures including blocking in colour, washes, thickened paint etc.</p>
<p>Computing</p>	<p>Acquire, store & combine images & text for a purpose. Capture images from a web page. Evaluate the use of multimedia & use to enhance work. Create & begin to edit text, multimedia & presentations experimenting with font, size, colour & alignment. Use a range of effects in art programs. Explore video, animation & green screens. Use tools to communicate & collaborate online safely. Plan & enter a sequence of instructions on a variety of devices to achieve an outcome. Test, improve and debug. Begin to use Logo. Use and understand the SMART rules, recognizing online behaviours which are unacceptable. Discuss actions to take if they are at risk online.</p>
<p>Design and Technology</p>	<p>Identify a purpose and success criteria for a successful product. Plan what they need to do. Suggest alternative ways to make a product. Assemble, join and combine components and materials with some accuracy.</p>

<p>Humanities</p>	<p>Geography- Ask questions of and has an awareness of similarities and differences in places and the environment. Collect and record evidence and begin to offer explanations using appropriate geographical vocabulary for their findings. Use a wider range of field work techniques. Use atlases, globes, maps and plans at a range of scales and draw simple maps and plans. Use secondary sources of information. Use ICT to help in geographical investigations.</p> <p>History-Identify different ways in which the past is represented. Use dates and vocabulary relating to the passing of time and sequence events and artefacts. Begin to give reasons for and results of the main events and changes. Recognise similarities and differences between periods of time. Use sources of information including ICT to find out about events, people and changes. Communicate knowledge and understanding in a variety of ways.</p>
<p>MFL- French</p>	<p>Oracy-Listen and respond to rhymes & stories, recognizing sounds and words. Recall, retain and use vocabulary, ask and answers questions. Listen attentively and understand instructions.</p> <p>Literacy- Recognise and read familiar words, greetings & phrases. Pronounce accurately some commonly used letters and use this to read aloud. Use simple words to form a sentence.</p> <p>Intercultural understanding- Locate the countries where French is spoken. Know facts about France and its culture for example famous landmarks, festivals & foods.</p>
<p>Music</p>	<p>Able to sing with awareness of pitch & rhythm and discuss how music creates different moods and effects. Is able to recall and perform simple rhythmic and melodic patterns.</p>
<p>Physical Education</p>	<p>Choose and use a range of tactics for defending & challenging an opponent in games. Use simple rules & extend them to devise games. Devise and repeat a short sequence of linked jumps. Throw a variety of objects, changing their action for accuracy and distance. Perform combinations of gymnastic actions using floor, mats and apparatus. Adapt gymnastic sequences to include different levels, speeds or directions. Create and link simple dance movements and perform with an awareness of rhythm in a range of contexts. Use a range of swimming strokes effectively. Recognise effective performances in themselves and others & use this to improve their own work.</p>
<p>PSHE</p>	<p>Be able to talk about their views on issues that affect themselves and their class. Identify positive things about themselves and their achievements. Able to face new challenges positively. Value the contribution of others in discussion and begin to develop negotiating strategies. Be able to compromise. Participate in making and changing rules. Foresee consequences when rules are broken and understand their actions affect themselves and others. Begin to make informed choices about food and lifestyle.</p>
<p>Religious Education</p>	<p>Describe what a believer might learn from a religious story. Describe some of the things that are the same and different for religious people and use religious words to describe ways in which people show their beliefs. Make links between the beliefs of different religious groups and show how they are connected to believers' lives. Use the right religious words to describe and compare what practices and experiences may be involved in belonging to different religious groups. Compare some of the things that influence themselves with those that influence other people. Ask important questions about life and compare my ideas with those of other people.</p>