

Unit 9 Place Value

Five daily lessons

Year 1
Spring term

Unit Objectives

Year 1

- Understand and use the vocabulary of comparing and ordering numbers including ordinal numbers.
- Compare two familiar numbers and say which is more or less and give a number in between.
- Understand the vocabulary of estimation, gives sensible estimate of a number of objects.

Link Objectives

Reception

- Compare two numbers. Say a number that lies between two given numbers up to 10 (then beyond).
- Begin to understand and use ordinal numbers in different written texts.
- Count reliably up to 12 objects.
- Begin to relate addition to combining two groups of objects counting all the objects.

Year 2

- Compare two digit numbers, say which is more/less and give a number that lies between them.
- Use and read vocabulary of estimation and Approximation.
- Give a sensible estimate of up to 50 cm. objects.
- Choose and use an appropriate number operations and mental strategy to solve money and real life word problems.

Resources needed to teach this unit:

20 small toys
Set of large nos 0 – 20
Sets of small nos 0 – 20, 0 – 30
Large bead bar to 100
Beadstrings to 20
Beadstring to 100
Numberlines to 20 and 30
Large 100 square.

Planning Sheet		Day 1	Unit 9 Place Value	Term: Autumn	Year Group: 1
Oral and Mental		Main Teaching			Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/Focus Questions	
		<p>Understand and use the Vocabulary of comparing and ordering numbers.</p> <p>Vocabulary count (up) count to count back units, ones, tens digit</p> <p>Resources Set of large no. cards 0 – 20. Interlocking cubes ITP Twenty Cards</p>	<p>SIT IN A CIRCLE</p> <p>Explain that today's lesson is about putting numbers in order.</p> <p>Distribute 0 – 20 cards to children (random). Count to 20. Child stands up when number is said. Count backwards from 20. Each child sits when number is said.</p> <p>Ask questions such as "Who has fifteen? How do you know? What does the one mean? What does the five mean?"</p> <p>Bring child with zero out. "Who comes next?"</p> <p>Continue to build a line 0 to 20. Ask questions. such as "What number comes after 10?" "What is 1 more than 19?" etc.</p>		

Planning sheet		Day 1	Unit 9 Place Value	Term: Spring	Year Group: 1
Oral and Mental		Main Teaching			Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/Focus Questions	
			<p>Continue until all 20 children are standing.</p> <p>Move 2 of the teens number children around. (Rest close their eyes).</p> <p>“What do you notice?”</p> <p>Are all the numbers in the correct order?</p> <p>Who can put this right?</p> <p>Repeat several times.</p> <p>Use twenty Cards I.T.P: (10 to 20) Scatter the cards in a random fashion upturned.. Select children to find the first card (10). “What comes next?”</p> <p>Build up a line of 10 to 20. Repeat. “Can we do this backwards?”.</p>	<p>PLENARY</p> <p>Give out some of the numbers again (odd nos only to 20)</p> <p>Ask the children for their help ordering them.</p> <p>Say one, three, five etc together.</p> <p>Now can we say just the numbers of those that are missing?</p> <div style="border: 1px solid black; padding: 5px; margin-top: 20px;"> <p>By the end of the lesson the children will be able to order a set of numbers to 20.</p> </div>	

Planning sheet	Day 2	Unit 9 Place Value	Term: Sprint	Year Group: 1
Oral and Mental		Main Teaching		Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/Focus Questions
		<p>Understand and use the vocabulary of comparing and ordering numbers including ordinal numbers.</p> <p>Vocabulary order size first, second, third tenth....twentieth last, last but one before, after</p> <p>Resources Chinese New Year story Set of large ordinal number cards 1st to 20th. Collection of 20 different small toys nos. 1 to 20. Sticks of 20 interlocking cubes in different colours.</p>	<p>Give out the set of number cards randomly.</p> <p>Choose one e.g. 7th</p> <p>Discuss what we say when we read it. Read some of the others.</p> <p>Ask the children to line up in order.</p> <p>Ask Who is first? Who is last? Who is sixth?</p> <p>If John is first, what do we say for the person after John?</p> <p>And the person after him.</p> <p>Say together first, second, third, fourth etc. to twentieth. Who is nineteenth?</p> <p>Line up toys and put a number next to them.</p>	<p>PLENARY</p> <p>Tell the story of Chinese New Year.</p> <div style="border: 1px solid black; padding: 10px; margin-top: 20px;"> <p>By the end of the lesson the children will be using the ordinal number names to discuss the position of objects (at various levels of ability).</p> </div>

Planning Sheet	Day 2	Unit 9 Place Value		Term: Spring	Year Group: 1
Oral and Mental		Main Teaching			Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/Focus Questions	
			<p>Ask the children which toy is first in the line, last, tenth, second, fifth etc.</p> <p>Give out sticks of cubes. Ask the children to work in pairs and ask which colour is first, last, fifth etc.</p> <p>(Demonstrate with a partner first) (Less able can do 1 to 10).</p> <p>Can more able read cards to 30 and say their ordinal names?</p>	<p>By the end of the lesson the children will be able to</p> <ul style="list-style-type: none"> • Solve simple problems involving capacity. • Use the related vocabulary. 	

Planning sheet		Day 3	Unit 9 Place Value	Term: Spring	Year Group: 1
Oral and Mental		Main Teaching			Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/Focus Questions	
		<p>Compare two familiar numbers and say which is more or less and give a number in between.</p> <p>Vocabulary more, less odd, even every other compare order size</p> <p>Resources No lines to 20 Sets of cards 1 – 20 Large cards 1 – 20 on washing line</p>	<p>Show the children 1 – 20 on a washing line. Odd and even could be different colours.</p> <p>“Lets just say the numbers on the white cards” (forwards and backwards).</p> <p>“Now lets say the ones on the blue cards” (forwards and backwards).</p> <p>Point to 2 numbers (say 4 and 15). Which is ore 4 or 15? How do you know? Repeat several times asking which is more / which is less?</p> <p>Point to a teens number, say 13, who can tell me a number less than 13? Who can tell me a number more than 13? And another. And another.</p> <p>Point to 2 numbers and ask the children for a number in between. Repeat the activities several times. Demonstrate task.</p> <p>Give each child a set of numbers to 20 (10 for less able, 30 for more able) and a numberline. Each child turns over their top card and they take turns to say a number between the two. Check using the numberline. Score a point if correct.</p>	<p>PLENARY</p> <p>Give everyone a number (more able 21 – 30, less able 1 – 10).</p> <p>Ask the children to stand up if their number is between 1 and 5, 13 and 17, 23 and 28 etc.</p>	

Planning sheet		Day 4	Unit 9 Place Value	Term: Spring	Year Group: 1
Oral and Mental		Main Teaching			Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/Focus Questions	
		<p>Within the range 0 to 30, say the number that is 1 or 10 more or less than any given number.</p> <p>Vocabulary more less order one less one more ten less ten more between count on count back unit, ones tens digit teens number</p> <p>Resources I.T/P. counting on and back Sets of cards No. lines to 30</p>	<p>Altogether count in tens to 100.</p> <p>Show I.T.P. counting on and back, count in tens. Click to show 3. What is one more one less? Repeat with other numbers.</p> <p>Demonstrate one more / one less than 10, 20, 30. Repeat one more / one less with nos to 30 asking questions/ What is one more than 8, 15, 25 etc. What is one less than 8. 15, 25 etc. (Children should have number lines to 30 to check.)</p> <p>Use large bead bar. Demonstrate counting in tens to 100 – moving beads. Repeat backwards. Repeat whole process. No move 3 beads to left. How many have we moved? What number will we have if we count on ten? Demonstrate moving 10 to 13. Record 3, 13 on white boards. Keep adding tens to 93 recording as you go. Children read the numbers together. Then subtract 10 and count backwards. Repeat procedure using different start numbers.</p>	<p>Use I.T.P. Counting on and back.</p> <p>With children's help demonstrate counting from 4 in tens.</p> <p>What do you notice about the new number each time?</p> <p>Establish that the units number stays the same.</p> <div style="border: 1px solid black; padding: 10px; margin-top: 20px;"> <p>The children will be able to say what is one more / one less than a number to 30. They will begin to be able to count in tens from any given number.</p> </div>	

Planning sheet		Day 5	Unit 9 Place Value	Term: Spring	Year Group: 1
Oral and Mental		Main Teaching			Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/Focus Questions	
		<p>Understand and use the vocabulary of estimation. Give sensible estimates of objects that can be checked by counting.</p> <p>Vocabulary estimate just over nearly too few roughly about too many enough</p> <p>Resources OHP Objects from classroom eg Interlocking cubes Counters Lego bricks Plastic toys etc. Tray, cloth, pots containing 30 counters</p>	<p>Tell the children that today's lesson is about guessing quantities of different objects. And explain that we have a special word for guessing in mathematics - ESTIMATE.</p> <p>Using cubes (or similar) grab a handful and estimate together how many you think there are. Count the cubes.</p> <p>Repeat the activity several times to establish what an estimate is (an accurate guess). Take estimates from the children and discuss whether they are good or bad guesses.</p> <p>Establish that estimates cannot be a guess. There must be a reason for the estimate.</p> <p>Place a handful of objects on a tray and cover with a cloth. Explain that you are going to take the cloth away and they need to estimate how many objects there are. Reveal for 5 seconds then cover. Ask for a few suggestions. Record on board. Remove cloth and count together. Discuss estimates and establish that there are no right / wrong answers just sensible estimates. Repeat several times together. Give children 30 counters in pairs and 2 pieces of A4. Child A pours some counters on the paper. Leaves for 5 seconds – cover with A4 sheet then they both make an estimate. They repeat this activity taking turns. (The number of counters/objects in the pot can be more or less for more able / less able pupils.</p>	<p>On O.H.P. scatter a few counters. Switch light on for 5 seconds. Ask for estimates and collect some.</p> <p>Light on Group in 2s, 5s or 10s to practise counting.</p> <p>Repeat.</p>	