

Unit 5

Four daily lessons

Title: Measures, including problems

Year 2
Summer term

Unit Objectives

Year 2

- Use and begin to read the vocabulary related to capacity and time.
- **Consolidate all work on time.**
- Estimate, measure then compare capacities using litres.
- Suggest suitable units and equipment for such measurements. (Pages 70-77)
- Read a scale to the nearest division.
- **Derive doubles of multiples of 5.**
- Recall x2 table and derive division facts.
- Recognise odd and even numbers.

Link Objectives

Year 1

- Suggest suitable non-standard & standard units and measuring equipment to estimate.
- Measure capacity as 'about 3 beakers full', or 'just under 5 litres'.
- Solve simple problems involving capacity or time.
- Read time to half hour on analogue clocks.
- Recall addition and subtraction facts up to at least 5 (and up to 10)
- Recall addition doubles up to at least 5+5.

Year 3

- Read and begin to write vocabulary related to capacity.
- Measure and compare using litres and millilitres. Suggest suitable units and equipment to estimate or measure capacity.
- Read scales. Record measurements using mixed units, or to the nearest whole/half unit.
- Choose number operations and calculation methods to solve measurement word problems with one or more steps. Explain and record.
- Use a calendar. Choose number operations and calculation methods to solve time word problems.

This Unit Plan is designed to guide your teaching.

You will need to adapt it to meet the needs of your class.

Resources needed to teach this unit:

- ITP 'number grid' or 100 square.
- Collection of containers, milk and other drink bottles in different sizes with capacity clearly marked
- Measuring jug marked in litres and millilitres.
- Cubes or other counting equipment.
- ITP 'measuring cylinder' or container marked in millilitres to 1 litre
- Collection of everyday containers marked with capacities.
- Activity sheet 5.1
- Collection of everyday objects
- Resource sheet 5.1 or own recipe.



Planning sheet		Day one	Unit 5: Measures, including problems	Term: <i>Summer</i>	Year Group: 2
Oral and mental		Main teaching			Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/ Focus Questions	
<p>Derive doubles of multiples of 5</p> <p>VOCABULARY: multiples of 5, 10, number pattern, double.</p> <p>RESOURCES: ITP 'number grid' or 100 square.</p>	<ul style="list-style-type: none"> ■ Count in 5s to 50 and back <p>Q Can you spot a pattern of numbers?</p> <ul style="list-style-type: none"> ■ Use ITP 'number grid' (or 100 square) and highlight all these numbers. <p>Q what is double 5?</p> <ul style="list-style-type: none"> ■ Use ITP or 100 square and highlight this number. <p>Q What is double 10?</p> <ul style="list-style-type: none"> ■ Highlight the answer. Repeat with more multiples of 5. <p>Q is there a pattern of numbers that could help us guess the next double?</p> <p>Q the answer is always a multiple of 10. why do you think this is? (5+5 = multiple of 10; multiple of 10+ multiple of 10= multiple of 10!)</p>	<p>Use and begin to read the vocabulary related to capacity.</p> <p>Identify from a collection which bottles would hold 1 or 2 litres.</p> <p>VOCABULARY: most, Least, measure, fill, full, empty, litre, capacity.</p> <p>RESOURCES: collection of containers, milk and other drink bottles in different sizes with capacity clearly marked, measuring jug marked in litres and millilitres.</p>	<ul style="list-style-type: none"> ▪ show children a collection of containers. Make sure some are tall and thin and others short and fat. <p>Q which of these do you think would hold the most/least?</p> <ul style="list-style-type: none"> • Line them up in order. <p>Q How can we find out?</p> <p>Q Is it important that we use the same measure to fill each container? Would we be able to find out about their capacity (how much they hold) if we used different containers?</p> <ul style="list-style-type: none"> • If we look at bottles from the supermarket they all contain liquids measured in litres and millilitres. Can you think of some? • Show milk bottle and drink containers. <p>Q can you see the measurements on the side of these containers?</p> <ul style="list-style-type: none"> • Show measuring jug. Explain about the measurements marked on it. <p>Q can you find the 1 litre,/ half litre measure on the jug?</p> <p>Q How many litres would fill each container?</p> <ul style="list-style-type: none"> • Draw each container and record it's capacity. 	<p>Homework: make a list of products in a local shop or supermarket are sold in litres or millilitres.</p> <p>Bring empty containers in and make a collection.</p> <p>By the end of the lesson children should be able to:</p> <ul style="list-style-type: none"> • Measure using litre / half litre. • Estimate capacity in litres to nearest half litre. • Be more aware of capacity in the world around them. 	

Planning sheet		Day two	Unit 5: Measures, including problems	Term: <i>Summer</i>	Year Group: 2
			Main Teaching		Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities		Teaching Activities/ Focus Questions
<p>Recall x2 table and derive division facts</p> <p>VOCABULARY: times table, divide, multiply</p> <p>RESOURCES: c</p>	<ul style="list-style-type: none"> Chant 2 times table. <p>Q what is 2 times 4?</p> <ul style="list-style-type: none"> Repeat asking other 2 times table questions at random <p>Q if 2 times 4 is 8, what is 8 divided by 2?</p> <ul style="list-style-type: none"> Use cubes or other counting equipment to show 2 times 4 as repeated addition. <p>Q if I take these 8 cubes and divide them by 2, what do I have to do? (eg share them).</p> <p>Share the cubes to show that 8 divided by 2 equals 4.</p> <ul style="list-style-type: none"> Repeat with other 2 times table questions, deriving division facts. 	<p>Know that 1 litre=1000 millilitres</p> <p>Suggest things that could be measured in litres and millilitres.</p> <p>Choose appropriate measuring container eg jug, cup, spoon</p> <p>VOCABULARY: litre, half litre, millilitre, container, capacity</p> <p>RESOURCES: ITP 'measuring cylinder' or container marked in millilitres to 1 litre, collection of everyday containers marked with capacities. Activity sheet 5.1, collection of everyday objects. Resource sheet 5.1 or own recipe.</p>	<ul style="list-style-type: none"> Use ITP 'measuring cylinder' set on max 1000 in divisions of 10, or a clearly-marked container. <p>Q This measuring cylinder is marked in millilitres to 1 litre. How many millilitres in 1 litre? How many millilitres in half a litre?</p> <ul style="list-style-type: none"> Choose a container. <p>Q what is the capacity of this container?</p> <p>Q if we were going to show that capacity on the ITP, how full would the cylinder be?</p> <ul style="list-style-type: none"> Fill the cylinder to show the capacity, empty it and repeat with other containers. <p>Q can everything be measured in litres and millilitres?</p> <ul style="list-style-type: none"> Place a selection of different kinds of objects, including some containers for liquids. <p>Q how can we sort these things according to whether or not you can use litres and millilitres to measure them.</p> <p>Activity: on board make a table of objects. Activity: activity sheet 5.1</p> <ul style="list-style-type: none"> Show children the recipe (or use one of your own) on resource sheet 5.1 <p>Q how many millilitres of milk do you need to make milkshake?</p> <p>Q can you measure the milkshake powder in millilitres?</p>		<p>Make and drink milkshake.</p> <p>Q if we wanted to make 2 glasses of milkshake, how much milk would we need?</p> <p>By the end of the lesson children should be able to:</p> <ul style="list-style-type: none"> Tell you that 1 litre = 1000 millilitres.

Planning sheet		Day three	Unit 5 Measures, including problems.	Term <i>summer</i>	Year Group: 2
Oral and Mental		Main Teaching			Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/ Focus Questions	
<p>Recognise odd and even numbers.</p> <p>VOCABULARY: odd, even, digit.</p> <p>RESOURCES: ITP 'number grid' or 100 square.</p>	<ul style="list-style-type: none"> ▪ Use ITP 'number grid ' or 100 square. <p>Q Who can come and highlight an even number?</p> <ul style="list-style-type: none"> ▪ Repeat with other even numbers. <p>Q what is the rule for even numbers?</p> <p>Q what are the other numbers called? (odd)</p> <p>Q what is the rule for odd numbers?</p> <p>Q is the number 234 odd or even?</p> <ul style="list-style-type: none"> • Repeat with other large numbers, emphasising that the last digit is important in identifying odd or even. 	<ul style="list-style-type: none"> • Use and begin to read the vocabulary related to time. <p>VOCABULARY: clock, digital, analogue, hand, time, o'clock, half past, quarter past, quarter to.</p> <p>RESOURCES: ITP 'tell the time' or a digital and analogue clock face, smaller clock faces for children to use, resource sheet 5.2. TV guide for children's programmes.</p>	<ul style="list-style-type: none"> • Use ITP 'telling the time' or a digital and analogue clock face. <p>Q which hand tells you the hour of the day? Which hand tells you how many minutes have passed in the hour?</p> <ul style="list-style-type: none"> • Show an o'clock time on the analogue clock. <p>Q what time will the digital clock show?</p> <ul style="list-style-type: none"> • Repeat for other o'clock and half past times. <p>Q How many minutes are there in 1 hour? Half an hour?</p> <ul style="list-style-type: none"> • Show a quarter past time. <p>Q what time does the clock say? Why is it quarter past? How will quarter past look on a digital clock?</p> <ul style="list-style-type: none"> • Show a quarter to time. <p>Q what time does the clock say? Why is it quarter to? How will quarter to look on a digital clock?</p> <ul style="list-style-type: none"> • Hand out smaller clock faces. <p>Q I'm going to say a time, I want you to show it on your clock face.</p> <ul style="list-style-type: none"> • (if these have digital display as well, even better!) • set a series of o'clock, half past, quarter past and quarter to times for children to show on clocks. <ul style="list-style-type: none"> • Work through resource sheet 5.2 	<ul style="list-style-type: none"> • Use a TV guide for children's programmes (eg BBC online) to find out what times your favourite programmes are on TV. <p>By the end of the lesson children should be able to:</p> <ul style="list-style-type: none"> • Use and begin to read the vocabulary related to and time. 	

Planning sheet	Day four	Unit 5 Measures, including problems.	Term: Summer	Year Group: 2
Oral and Mental		Main Teaching		Plenary
Objectives and Vocabulary	Teaching Activities	Objectives and Vocabulary	Teaching Activities	Teaching Activities/ Focus Questions
<p>Recognise odd and even numbers.</p> <p>VOCABULARY: odd, even, digit, bigger, smaller than.</p> <p>RESOURCES: ITP 'number grid', resource sheet 5.3</p>	<ul style="list-style-type: none"> Use IT 'number grid' or a 100 square as a visual aid. Use resource sheet 5.3 and answer questions. 	<p>Consolidate all work on time.</p> <p>VOCABULARY: clock, calendar</p> <p>RESOURCES: resource sheet 5.4, calendars, clocks</p>	<ul style="list-style-type: none"> Show a calendar and a clock. Chant the months of the year. <p>Q What do we need these two things for?</p> <p>Q if I wanted to find out which day of the week Christmas Day was on this year, would I use the clock or the calendar?</p> <p>Q if I wanted to find out how long until lunch (or home time), which of these would I use?</p> <ul style="list-style-type: none"> Cut out statements in resource sheet 5.4. <p>Q We've got some statements to sort. Do we need a calendar, a clock or neither to solve them?</p> <ul style="list-style-type: none"> Sort statements. Discuss and correct solutions to statements. Activity Each group has a copy of statements, a calendar and a clock face. Solve the statements. <ul style="list-style-type: none"> Show children a diary. Explain how it works. <p>Q Can someone come and find May 26th. Which day of the week was it?</p> <ul style="list-style-type: none"> Repeat with other dates. Show how to enter a time on a particular date. 	<p>Time quiz</p> <p>Q how many days in a week? / hours in a day / months in a year/ minutes in an hour? etc</p> <p>By the end of the lesson children should be able to:</p> <ul style="list-style-type: none"> Discriminate between days, weeks, months, hours, and minutes.