## Reasoning and Problem Solving Step 2: Years, Months, Weeks and Days

# **Teaching Note:**

The questions in this resource do not refer to leap years unless specifically stated.

# National Curriculum Objectives:

Mathematics Year 4: (4M4c) <u>Solve problems involving converting from hours to minutes;</u> <u>minutes to seconds; years to months; weeks to days</u>

# Differentiation:

## Questions 1, 4 and 7 (Problem Solving)

**Developing** Determine a child's age using the given age of another child. One-step conversions only, using consecutive units of time, e.g. days to weeks.

Expected Determine a child's age using the given age of 2 other children. One-step conversions only, using consecutive units of time, e.g. days to weeks.

Greater Depth Determine 2 children's ages using the given age of 2 other children. Onestep conversions only, using consecutive units of time, e.g. days to weeks.

## Questions 2, 5 and 8 (Problem Solving)

**Developing** Use a simple statement to work out a specific date on a calendar. Duration is within one month.

Expected Use a simple statement to work out a specific date on a calendar. Duration is over a month but still on the calendar.

Greater Depth Use a simple statement to work out a specific date on a calendar. Duration is over a month and not visible on the calendar.

## Questions 3, 6 and 9 (Reasoning)

Developing Calculate two statements to determine which is correct by making direct comparisons between days and weeks. One-step conversion only.

Expected Calculate two statements to determine which is correct by making direct comparisons between months, weeks and days. Up to two-step conversions.

Greater Depth Calculate two statements to determine which is correct by making comparing a mixture of days, weeks, months and years. Up to two-step conversions.

# More <u>Year 4 Time</u> resources.

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Reasoning and Problem Solving – Years, Months, Weeks and Days – Teaching Information

<u>Years, Months, Weeks and Days</u>										<u>Years, Months, Weeks and Days</u>										
				ionth: ian Sc		-	e is 6	1b. Julia is 86 months old. Kal is 4 months older than Julia.												
Ном	v old	is Ha	llie?					How old is Kal?												
Hallie is years and months old.										Kal is years and months old.										
合	PS PS										PS									
sea and	2a. Leoni is going to visit her family at the seaside. She arrives on the 5 <sup>th</sup> January and spends 10 days there before returning home.										-	Alps.		-		iy for on th				
	Mon	Tue	Wed	Thurs	Fri	Sat	Sun			Mon	Tue	Wed	Thurs	Fri	Sat	Sun				
	January											N	lovembe	er						
			1	2	3	4	5								1	2				
	6	7	8	9	10	11	12			3	4	5	6	7	8	9				
	13 20	14 21	15 22	16 23	17 24	18 25	19 26			10 17	11 18	12 19	13 20	14 21	15 22	16 23				
	20	28	29	30	31	25	20			24	25	26	20	28	29	30				
27     28     27     30     31       What date does she return home?     What date did he start his holiday?       >>     >>												PS								
3a.	Jak c	ind S	uzie	are d	iscus	sing	days.		3b.	Helei	n and	Joe	are	discu	ssing	year	'S.			
There are 13 days in a fortnight.									There are 24 months in 2 years.											
There are 14 days in 2 weeks.										Joel		The	ere ar	e 14 m years		in 2				
Who is correct? Explain why.										Who is correct? Explain why.										
合								R												
									<u> </u>											

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Reasoning and Problem Solving – Years, Months, Weeks and Days – Year 4 Developing

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Yee	Mo	onths	, We	eks	and	Day	Years, Months, Weeks and Days								<u>S</u>				
4a. Elena is 10 years and 1 month old. Harry is 13 months younger than Elena. Jack is 3 months older than Harry.										4b. Hanif is 114 months old. Dakota is 6 months younger than Hanif. Violet is 6 months older than Dakota.									
How old is Jack?										How old is Violet?									
Jack is years and months old.									Violet is years and months old.										
PS									PS										
5a. Louisa is going on holiday on the 17 <sup>th</sup> August. She spends 1 week in France and 9 days in Spain.								Peru wee	) on t eks to	he 4 <sup>t</sup> exp	on an <sup>h</sup> July lore t days	and he Ai	it tal ndes.	ces hi He t	hen	es			
м	lon	Tue	Wed	Thurs	Fri	Sat	Sun	]		Mon	Tue	Wed	Thurs	Fri	Sat	Sun			
				August									July						
			1	2	3	4	5	]			1	2	3	4	5	6			
Ⅰ ⊢	6 13	7 14	8 15	9 16	10 17	11 18	12 19			7 14	8 15	9 16	10 17	11 18	12 19	13 20			
	20	21	22	23	24	25	26			21	22	23	24	25	26	20			
2	27	28	29	30	31			1		28	29	30	31						
September													August						
						1	2	]						1	2	3			
What date does she return home?											date	e doe	s he	arrive	e in B	razil?	PS		
6a. Saffie and Kai are discussing months.									6b. Daya and Darnell are discussing the month, June.										
The total amount of days in April, May and June is greater than in October, November and December. Saffie								There are 4 weeks and 3 days in June.											
Kai The total amount of days in October, November and December is greater than in April, May and June.									There are 4 weeks and 2 day in June.										
Who is correct? Explain why.									Who	o is co	orrec	t? Exi	plain	why.					
										Who is correct? Explain why.									

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<u> </u>	ears	<u>s, Mc</u>	onths	5, WE	eks	anc	a Day	<u>Years, Months, Weeks and Days</u>											
Joe olde	is 10	8 mo an Jo	onths	old. C	Carla	<b>is 6</b>	ths old month youn	7b. Dante is 110 months old. Charlie is 8 years and 2 months old. Eliza is 5 months older than Dante. Asha is 6 months younger than Charlie.											
Ном	/ old	is Ca	ırla? I	How	old is	Suzi	e?	How old is Eliza? How old is Asha?											
Carla is years and months old.						Eliza is years and months old								old.					
Suzi	Suzie is years and months old.				old.	Ash	Asha is years and months o												
PS										PS									
8a. Ethan returns home from travelling on the 3 <sup>rd</sup> January. He had been travelling for 1 month, 1 week and 6 days.									8b. The date is 12 <sup>th</sup> June. Anne has 3 weeks and 6 days left until she is on holiday from school.										
	Mon	Tue	Wed	Thurs	Fri	Sat	Sun	]		Mon	Tue	Wed	Thurs	Fri	Sat	Sun			
	24 31	25	26	27	28	29	30						June						
		1		) Decembe	er	<u> </u>	•								1	2			
		1	2	3	4	5	6			3	4	5	6	7	8	9			
	7	8	9	10	11	12	13			10	11	12	13	14	15	16			
	14 21	15 22	16 23	17 24	18 25	19 26	20 27			17	18	19	20	21	22	23			
	28	22	30	31	25	20	2/			24	25	26	27	28	29	30			
				January									July						
										1	2	3	4	5	6	7			
合	Wha	t day	did	he se	t off I	rave	elling?	PS	What date does she break up from school?										
9a.	lan c	A bac	Aicho	iel ar	e dis	cussi	ng ye	ars	9b. '	Thea	and	Vane	essa	are di	scus	sina			
									day		ana	V and				Sing			
															57				
		_					0 0		(.	There	are a	wavs	90 dav	/s in					
	There		44 mo vears.	nths in	12	_			There are always 90 days in January, February and										
		y	curs.		,				March.										
	Jan															Thea			
												-					<b>`</b>		
	<b>.</b>	5	ть .		0/F		. in <i>E</i>			1	7	Ther	e are (	alway	s 91 d	ays in			
There are 265 weeks in 5 years.												Jc	anuary			and			
Michael										Vanes	sa	$\square$		March	1.		J		
Who is correct? Explain why.									Who is correct? Explain why.										
																	R		

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Reasoning and Problem Solving – Years, Months, Weeks and Days – Year 4 Greater Depth

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## Reasoning and Problem Solving Years, Months, Weeks and Days

### Developing

1a. Hallie is 7 years and 8 months old.
2a. Wednesday 15<sup>th</sup> January
3a. Jak is correct. There are 7 days in 1 week so 2 x 7 = 14 days.

### **Expected**

4a. Jack is 9 years and 3 months old.
5a. Sunday 2<sup>nd</sup> September
6a. Kai is correct. There are 92 days in October, November and December combined and only 91 days in April, May and June combined.

## Greater Depth

7a. Carla is 9 years and 6 months old.
Suzie is 8 years and 9 months old.
8a. Friday 21<sup>st</sup> November
9a. Jan is correct. There are 12 months in 1 year so 12 x 12 = 144 months. Michael is incorrect because there are 52 weeks in 1 year so 52 x 5 = 260 days.

## Reasoning and Problem Solving Years, Months, Weeks and Days

#### Developing

1b. Kal is 7 years and 6 months old.
2b. Sunday 16<sup>th</sup> November
3b. Helen is correct. There are 12 months in 1 year so 2 x 12 = 24 months.

### **Expected**

4b. Violet is 9 years and 6 months old.
5b. Saturday 2<sup>nd</sup> August
6b. Darnell is correct. There are 30 days in June. 7 days x 4 weeks = 28 days, 28 days + 2 days = 30 days.

### **Greater Depth**

7b. Eliza is 9 years and 7 months old.
Asha is 7 years and 8 months old.
8b. Tuesday 9<sup>th</sup> July
9b. Both Thea and Vanessa could be correct. If it is a leap year, there are 91 days in January, February and March combined but if it is not a leap year, there are only 90.



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Reasoning and Problem Solving – Years, Months, Weeks and Days **ANSWERS**