# Reasoning and Problem Solving Step 5: AM and PM

### **National Curriculum Objectives:**

Mathematics Year 3: (3M4d) <u>Estimate and read time with increasing accuracy to the nearest</u> <u>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</u>

#### Differentiation:

Questions 1, 4 and 7 (Problem Solving)

Developing Complete the table to show whether times of day are a.m. or p.m. when telling the time using analogue and digital clocks, recognising a.m. as morning and p.m. as afternoon. Includes 10 minute intervals.

Expected Complete the table to show whether times of day are a.m., p.m. or both when telling the time using analogue and digital clocks, recognising a.m. as morning and p.m. as afternoon. Includes 5 minute intervals.

Greater Depth Complete the table by recording an activity that might occur during a.m., p.m. or both when telling the time using analogue and digital clocks, recognising a.m. as morning and p.m. as afternoon. Includes 1 minute intervals.

#### Questions 2, 5 and 8 (Reasoning)

Developing Explain whether digital times have been written correctly when telling the time using analogue and digital clocks, recognising a.m. as morning and p.m. as afternoon. Includes 10 minute intervals.

Expected Explain whether digital times have been written correctly when telling the time using analogue and digital clocks, recognising a.m. as morning and p.m. as afternoon. Includes 5 minute intervals.

Greater Depth Explain whether digital times have been written correctly when telling the time using analogue and digital clocks, recognising a.m. as morning and p.m. as afternoon. Includes 1 minute intervals.

#### Questions 3, 6 and 9 (Reasoning)

Developing Decide if a statement is correct and explain why when telling the time using analogue and digital clocks, recognising a.m. as morning and p.m. as afternoon. Includes 10 minute intervals.

Expected Decide if a statement is correct and explain why when telling the time using analogue and digital clocks, recognising a.m. as morning and p.m. as afternoon. Includes 5 minute intervals. Greater Depth Decide if a statement is correct and explain why when telling the time using analogue and digital clocks, recognising a.m. as morning and p.m. as afternoon. Includes 1 minute intervals.

More Year 3 Time resources.

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# AM and PM

# AM and PM

1a. Sort the activities into the table to show whether they would be a.m. or p.m.

a.m.	p.m

A. Walk to school at 8:30. B. Bedtime story at 8:00 .

C. Put pyjamas on at 7:30.

D. Get dressed at 7:10.

1b. Sort the activities into the table to show whether they would be a.m. or p.m.

a.m.	p.m.

A. Eat some supper.

B. Close the curtains.

C. Eat some cereal.

D. Open the curtains.



2a. Toby has written the digital times to match the analogue clocks below.

Film starts:



11:00am

Film ends:



1:30am

2b. Kelly has written the digital times to match the analogue clocks below.

Go to bed at:



8:30pm

Wake up at:

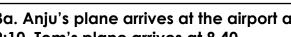


7:00pm

Is he correct? Explain how you know. Is she correct? Explain how you know.



3a. Anju's plane arrives at the airport at 9:10. Tom's plane arrives at 8.40.





3b. Jai's swimming lesson is at 11:20am. Mia's swimming lesson is at 1:10pm.



My plane will definitely arrive after Tom's as 9:10 comes after 8:40.

Mia's swimming lesson is before my swimming lesson because one comes before eleven.

Is Anju Correct? Explain how you know.



Is Jai correct? Explain how you know.





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# AM and PM

## AM and PM

4a. Sort the activities into the table to show whether they would be a.m., p.m. or both.

a.m.	p.m.	Both

A. Brush your teeth at 8:25.

B. Eat breakfast at 8:05.

C. Go to sleep at 8:45. D. Do homework at 6:35.

4b. Sort the activities into the table to show whether they would be a.m., p.m. or both.

a.m.	p.m.	Both

A. Have a drink at 8:05.

B. Watch the sun set at 8:45.

C. Watch the sun rise at 6:15.

D. Wash your face at 7:55.

5a. Ben has written the digital times to match the analogue clocks below.

5b. Jacinta has written the digital times to match the analogue clocks below.

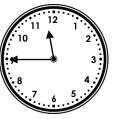
Is she correct? Explain how you know.

8:05. Sinead's train arrives at 8:15.

Lunchtime starts:

Lunchtime ends:

12:35am



11:45am

**School starts:** 



9:05pm

School ends:



3:25pm

Is he correct? Explain how you know.





6b. Sean's train arrives at the station at

6a. Steph's bus arrives at the station at 11:25am. Hafsa's bus arrives at 3.45pm.



Steph

My bus arrives after Hafsa's because eleven comes after three.

Is Steph Correct? Explain how you know.



I will definitely be catching my train before Sinead because 8:05 comes before 8:15.

Is Sean correct? Explain how you know.







## AM and PM

# AM and PM

7a. Write down an activity you might do during the times listed below. Tick to show if the time is a.m., p.m. or both.

Time	Activity	a.m.	p.m.	Both
12:26				
3:18				
7:49				
1:29				

7b. Write down an activity you might do during the times listed below. Tick to show if the time is a.m., p.m. or both.

Time	Activity	a.m.	p.m.	Both
8:48				
7:16				
10:06				
9:22				





8a. Sunil has written the digital times to match the analogue clocks below.



10:32am

Karate starts:

Karate ends:



12:18am

8b. Tara has written the digital times to match the analogue clocks below.

Pony day starts:



9:54am

Pony day ends:



4:46am

Is he correct? Explain how you know.





Is she correct? Explain how you know.

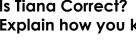


9a. Tiana arrives at the airport at 10:28. Her plane leaves at 10:15.



I arrived early so that I had plenty of time to shop and eat before checking in for my flight.

Is Tiana Correct? Explain how you know.



9b. Tyrone is going on holiday. He has booked a train ticket for 12:47.



This means that I can eat lunch before I go and arrive at the beach in time to watch the sun set.

Is Tyrone correct? Explain how you know.







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# Reasoning and Problem Solving AM and PM

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#### <u>Developing</u>

1a. a.m. = A and D; p.m. = B and C

2a. He is incorrect. At 1:30, the time would become p.m. not a.m.

3a. Anju is incorrect as we do not know whether the times are a.m. or p.m. For example a 9:10am plane would arrive before an 8:40pm plane.

#### **Expected**

4a. a.m. = B; p.m. = C and D; Both = A

5a. He is incorrect. At 12:35, the time would become p.m. not a.m.

6a. Steph is incorrect as 11:25am comes before 3:45pm.

### **Greater Depth**

7a. Various answers, for example:

Time	Activity	a.m.	p.m.	Both
12:26	eat lunch		<b>✓</b>	
3:18	leave school		<b>✓</b>	
7:49	brush teeth			<b>✓</b>
1:29	sleep	<b>✓</b>		

8a. He is incorrect. Karate starts at 10:42am and ends at 12:18pm.

9a. Tiana would be correct if she arrived at 10:28am and her flight is at 10:15pm but incorrect if both times were a.m. or p.m.

#### <u>Developing</u>

1b. a.m. = C and D; p.m. = A and B

2b. Kelly is incorrect. 7:00 should be a.m. not p.m.

3b. Jai is incorrect as 11:20am is in the morning and 1:10pm in the afternoon.

### **Expected**

4b. a.m. = C; p.m. = B; Both = A and D

5b. She is incorrect. 9:05 should be a.m. and 3:25 should be p.m.

6b. Sean is incorrect as we do not know whether the times are a.m. or p.m. For example an 8:15am train would arrive before an 8:05pm train.

#### <u>Greater Depth</u>

7b. Various answers, for example:

Time	Activity	a.m.	p.m.	Both
8:48	get to school	<b>*</b>		
7:16	wash face			✓
10:06	assembly	<b>✓</b>		
9:22	get into bed		✓	

8b. She is incorrect. Pony day starts at 8:54am and ends at 4:46pm.

9b. Tyrone is only correct if he has booked the ticket for 12:47pm.

