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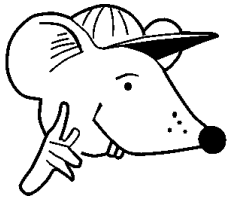
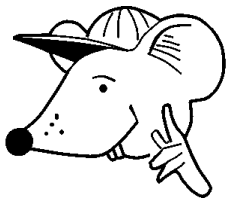


MATHEMATICS



N.S. Yr. 5 P.101

Read the time from clocks, calendars and timetables.

Equipment

Paper, pencil

MathSphere

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Concepts

Children should be able to read an analogue clock (the type with the older clock face) to the nearest minute and read a digital clock.

They should understand the relationship between a 12 hour clock and a 24 hour clock.

Children should understand and be able to use **a.m.** and **p.m.** and convert these times to 24 hour clock times and back again.

They should know that 24 hour clock times are sometimes written without punctuation (1342), sometimes with punctuation - normally a colon (13:43) and sometimes with an 'h' at the end (1342 h).

They should be able to interpret more complicated timetables and solve quite complex problems using timetables.

A great deal of the more basic work preceding this module is covered in the year 4 module. **You should make sure children have a good working knowledge of that module before covering the work in this module.**

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Read these **24 hour** clocks and write the **12 hour** clock times underneath. Do not forget to say whether the time is **a.m.** or **p.m.** One has been done for you.

18:16	**09:27**
6:16 p.m.	_____
10:12	**22:29**
_____	_____
11:28	**12:10**
_____	_____
03:21	**19:27**
_____	_____

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Read these **24 hour** clocks and write the **12 hour** clock times underneath. Do not forget to say whether the time is **a.m.** or **p.m.**

20:40

_____

12:55

_____

07:35

_____

18:51

_____

01:33

_____

11:42

_____

16:39

_____

04:45

_____

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Read these **24 hour** clocks and write the **12 hour** clock times underneath. Do not forget to say whether the time is **a.m.** or **p.m.**

17:15

_____

10:56

_____

08:37

_____

01:22

_____

23:59

_____

11:45

_____

22:30

_____

14:42

_____

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The **12 hour** clock times are on the left. Change them to **24 hour** clock times and put them in the boxes on the right.
Remember that 24 hour clock times have four digits.
One has been done for you.

8:23 a.m.	08:23
6:50 p.m.	
9:45 p.m.	
1:23 a.m.	
12:15 p.m.	
10:39 p.m.	
9:07 a.m.	
11:20 p.m.	

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The **12 hour** clock times are on the left. Change them to **24 hour** clock times and put them in the boxes on the right.
Remember that 24 hour clock times have four digits.
One has been done for you.

11:50 p.m.	23:50
3:39 a.m.	
2:27 a.m.	
9:30 p.m.	
7:26 p.m.	
6:58 a.m.	
7:00 p.m.	
10:00 p.m.	

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The **12 hour** clock times are on the left. Change them to **24 hour** clock times and put them in the boxes on the right.
Remember that 24 hour clock times have four digits.
One has been done for you.

7:59 a.m.	07:59
2:53 p.m.	
12:34 p.m.	
8:21 a.m.	
10:36 a.m.	
2:38 p.m.	
9:12 p.m.	
7:50 a.m.	

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Fill in the gaps in this table:

Time in words	12 Hour time	24 Hour time
Four o'clock in the afternoon	4:00 p.m.	16:00
Midnight	12:00 a.m.	
Five past four in the afternoon		
	3:00 p.m.	
		12:00
Thirty minutes past midnight		
Twenty minutes past noon		
	2.37 p.m.	
Twenty to four in the afternoon		
Half past three in the morning		
One minute to midnight		
		00:02
		23.54
A quarter to five in the afternoon		

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Fill in the gaps in this table for the things you do.
Add three of your own in the spaces.

Time in words	12 Hour time	24 Hour time
I get out of bed		
I leave home to go to school		
I arrive at school		
My first lesson starts at		
Lunch is at		
Afternoon school begins at		
I finish school at		
I arrive home at		
I have my evening meal at		
I watch television until		
I go to sleep at		

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Look carefully at the bus timetable and answer the questions.

Bus stop	Times				
Frederick Street	0834	0929	1015	1109	1200
Chorley House	0854	0947	1037	1130	1222
Library	0912	.....	1052	.....	1242
West Dean School	0916	1000	1056	.....	1247
Theatre	0922	1005	1102	1146	1253
Town Centre	0929	1012	1111	1154	1301

1. What do the dots in the timetable mean?

2. How long does the first bus take to get from **Frederick Street** to the **Town Centre**?

3. At what time does the **09:47** bus from **Chorley House** arrive at the **theatre**?

4. Peter needs to arrive at the **theatre** by **twelve o'clock a.m**. Which bus must he catch from **Frederick Street**?

5. Which bus takes the least time for the complete journey from **Frederick Street** to the **town centre**?

6. Mary has to get an earlier bus to **West Dean School** before she can get the bus into town. She arrives at **West Dean School** at **11:40 a.m**. How long does she have to wait for a bus into town?

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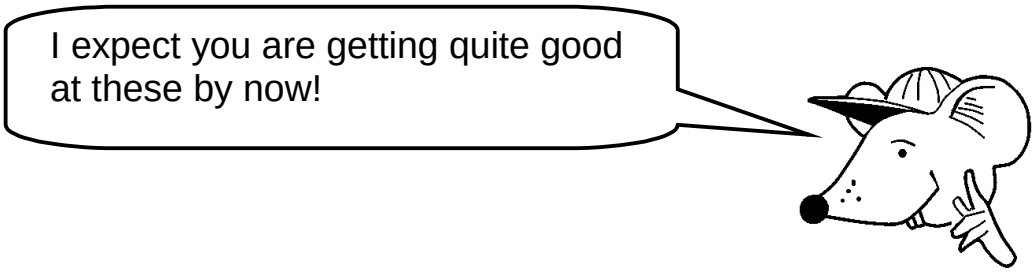

Here is another timetable for boats in a tropical paradise.

Island	**Times**					
Mainland Port	0920	1030	1140	1400	1510	1620
Lagoon Island	0935	1045	1155	1415	1525	1635
Pineapple Island	0957	1107	1217	1437	1547	1657
Whale Island	1010	1120	1230	1450	1600	1710
Shipwreck Island	1030	1140	1250	1510	1620	1730
Dolphin Island	1042	1152	1302	1522	1632	1742
Mainland Port	1050	1200	1310	1530	1640	1750

1. What is the time between most of the boats leaving the **mainland port**? Which boat is different?

2. Each boat takes the same time for the complete trip. How long do they take?

3. If I were on **Whale Island** and I decided at 1.30 p.m. to go back to **port**, what is the time of the earliest boat I can catch?

4. Sam is on **Shipwreck Island** and needs to meet her friend on **Dolphin Island** at half past one in the afternoon.
   Which boat should she get?

5. John does not want to get off the boat at each island, but he gets sea sick after about an hour. Explain why he likely to be sick.

6. If you get the first boat from the **port** and come back on the last, how long could you spend away from the **port**?

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Answers

Page 3

6:16 p.m. 9:27 a.m.
10:12 a.m. 10:29 p.m.
11:28 a.m. 12:10 p.m.
3:21 a.m. 7:27 p.m.

Page 4

8:40 p.m. 12:55 p.m.
7:35 a.m. 6:51 p.m.
1:33 a.m. 11:42 a.m.
4:39 p.m. 4:45 a.m.

Page 5

5:15 p.m. 10:56 a.m.
8:37 a.m. 1:22 a.m.
11:59 p.m. 11:45 a.m.
10:30 p.m. 2:42 p.m.

Page 6

08:23
18:50
21:45
01:23
12:15
22:39
09:07
23:20

Page 7

23:50
03:39
02:27
21:30
19:26
06:58
19:00
22:00

Page 8

07:59
14:53
12:34
08:21
10:36
14:38
21:12
07:50

Page 9

For answers to this page see next answer page.

Page 11

1. The bus does not stop at these stops.
2. 55 minutes
3. 10:05
4. 11:09 or earlier
5. 0929 (43 mins)
6. 1 hr 7 mins

Page 12

1. 1 hr 10 mins 1400 boat is different
2. 1 hr 30 mins
3. 14:50
4. 12:50
5. The trip is much longer than 1 hour
6. 8 hrs 30 mins

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Answers

Page 9

Time in words	12 Hour time	24 Hour time
Four o'clock in the afternoon	**4:00 p.m.**	**16:00**
Midnight	**12:00 a.m.**	00:00
Five past four in the afternoon	4:05 p.m.	16:05
Three o'clock in the afternoon	**3:00 p.m.**	15:00
Noon	12:00 a.m.	**12:00**
Thirty minutes past midnight	12:30 a.m.	00:30
Twenty minutes past noon	12:20 p.m.	12:20
Thirty seven minutes past 2 in the afternoon	**2.37 p.m.**	14:37
Twenty to four in the afternoon	3:40 p.m.	15:40
Half past three in the morning	3:30 a.m.	03:30
One minute to midnight	11:59 p.m.	23:59
Two minutes past midnight	12:02 a.m.	**00:02**
Six minutes to midnight	11:54 p.m.	**23.54**
A quarter to five in the afternoon	4:45 p.m.	16:45