

Varied Fluency

Step 10: Measuring Time in Seconds

National Curriculum Objectives:

Mathematics Year 3: (3M4d) [Estimate and read time with increasing accuracy to the nearest 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](#)

Mathematics Year 3: (3M4e) [Know the number of seconds in a minute and the number of days in each month, year and leap year](#)

Differentiation:

Developing Questions to support estimating time in seconds and converting between seconds and minutes (multiples of 60 seconds.)

Expected Questions to support estimating time in seconds and converting between seconds and minutes (multiples of 10 or 5 seconds.)

Greater Depth Questions to support estimating time in seconds and converting between seconds and minutes (any number of seconds.)

[More resources](#) which follow the same small steps as White Rose.

Did you like this resource? Don't forget to [review](#) it on our website.

Varied Fluency – Measuring Time in Seconds

1a. True or false?

Time in minutes	Time in seconds	True or false?
2 minutes	60 seconds	
4 minutes	240 seconds	
1 minute	120 seconds	
5 minutes	300 seconds	



VF

1b. True or false?

Time in seconds	Time in minutes	True or false?
180 seconds	3 minutes	
240 seconds	5 minutes	
120 seconds	2 minutes	
600 seconds	10 minutes	



VF

2a. Approximately how long would it take for a person to do 5 star jumps?

- 100 seconds 60 seconds 10 seconds



VF

2b. Approximately how long would it take to sing the alphabet song?

- 20 seconds 120 seconds 240 seconds



VF

3a. Put these times in order from shortest to longest.

- 2 minutes
- 60 seconds
- 180 seconds
- 5 minutes



VF

3b. Put these times in order from longest to shortest.

- 3 minutes
- 120 seconds
- 1 minute
- 240 seconds



VF

4a. Put the following stopwatch times in the correct place in the table.

	More than 180 seconds	Less than 180 seconds
00:02:00		
00:01:00		
00:05:00		
00:04:00		
00:07:00		



VF

4b. Put the following stopwatch times in the correct place in the table.

	Less than 240 seconds	More than 240 seconds
00:03:00		
00:02:00		
00:06:00		
00:01:00		
00:05:00		



VF

Varied Fluency – Measuring Time in Seconds

5a. True or false?

Time in minutes	Time in seconds	True or false?
5 minutes	300 seconds	
1 minute and 10 seconds	110 seconds	
3 minutes and 25 seconds	325 seconds	
2 minutes and 30 seconds	150 seconds	



VF

5b. True or false?

Time in seconds	Time in minutes	True or false?
125 seconds	2 minutes	
195 seconds	2 minutes and 15 seconds	
310 seconds	5 minutes and 10 seconds	
200 seconds	3 minutes and 10 seconds	



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6a. Approximately how long should it take for a person to brush their teeth?

15 seconds

120 seconds

600 seconds



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6b. Approximately how long would it take to toast a slice of bread?

500 seconds

60 seconds

180 seconds



VF

7a. Put these times in order from shortest to longest.

1 minute 35 seconds

2 minutes 10 seconds

100 seconds

120 seconds



VF

7b. Put these times in order from longest to shortest.

250 seconds

2 minutes 40 seconds

255 seconds

1 minute 40 seconds



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8a. Put the following stopwatch times in the correct place in the table.

00:00:55

> 120 seconds

< 90 seconds

00:03:20

00:01:25

00:02:30

00:01:10



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8b. Put the following stopwatch times in the correct place in the table.

00:06:05

> 300 seconds

< 140 seconds

00:02:15

00:05:20

00:01:55

00:00:20



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Varied Fluency – Measuring Time in Seconds

9a. True or false?

Time in minutes	Time in seconds	True or false?
2 minutes 16 seconds	216 seconds	
5 minutes and 41 seconds	341 seconds	
4 minutes and 38 seconds	278 seconds	
2 minutes and 51 seconds	251 seconds	



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9b. True or false?

Time in seconds	Time in minutes	True or false?
125 seconds	3 minutes 14 seconds	
108 seconds	1 minutes and 48 seconds	
437 seconds	4 minutes and 37 seconds	
137 seconds	2 minutes and 17 seconds	



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10a. Approximately how long would it take for a person to run 100m?

- 369 seconds 18 seconds 129 seconds



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10b. Approximately how long would it take to fill a 500ml water bottle?

- 224 seconds 6 seconds 315 seconds



VF

11a. Put these times in order from shortest to longest.

- 7 minutes 23 seconds
- 253 seconds
- 426 seconds
- 4 minutes 26 seconds



VF

11b. Put these times in order from longest to shortest.

- 428 seconds
- 6 minutes 21 seconds
- 444 seconds
- 4 minutes 44 seconds



VF

12a. Put the following stopwatch times in the correct place in the table.

	< 222 seconds	> 237 seconds
00:04:41		
00:03:38		
00:03:58		
00:03:33		
00:03:31		



VF

12b. Put the following stopwatch times in the correct place in the table.

	> 323 seconds	< 303 seconds
00:05:57		
00:05:02		
00:06:17		
00:04:59		
00:09:01		



VF

Varied Fluency – Measuring Time in Seconds

Developing

1a.

Time in minutes	Time in seconds	True or false?
2 minutes	60 seconds	False
4 minutes	240 seconds	True
1 minute	120 seconds	False
5 minutes	300 seconds	True

1b.

Time in seconds	Time in minutes	True or false?
180 seconds	3 minutes	True
240 seconds	5 minutes	False
120 seconds	2 minutes	True
600 seconds	10 minutes	True

2a. 10 seconds

2b. 20 seconds

3a. 60 seconds, 2 minutes, 180 seconds, 5 minutes.

3b. 240 seconds, 3 minutes, 120 seconds, 1 minute.

4a.

More than 180 seconds	Less than 180 seconds
00:05:00	00:02:00
00:04:00	00:01:00
00:07:00	

4b.

Less than 240 seconds	More than 240 seconds
00:03:00	00:06:00
00:02:00	00:05:00
00:01:00	

Expected

5a.

Time in minutes	Time in seconds	True or false?
5 minutes	300 seconds	True
1 minute and 10 seconds	110 seconds	False
3 minutes and 25 seconds	325 seconds	False
2 minutes and 30 seconds	150 seconds	True

5b.

Time in seconds	Time in minutes	True or false?
125 seconds	2 minutes	False
195 seconds	2 minutes and 15 seconds	False
310 seconds	5 minutes and 10 seconds	True
200 seconds	3 minutes and 10 seconds	False

6a. 120 seconds

6b. 180 seconds

7a. 1 minute and 35 seconds, 100 seconds, 120 seconds, 2 minutes and 10 seconds.

7b. 255 seconds, 250 seconds, 2 minutes and 40 seconds, 1 minute and 40 seconds.

8a.

> 120 seconds	< 90 seconds
00:03:20	00:00:55
00:02:30	00:01:25
	00:01:10

8b.

> 300 seconds	< 140 seconds
00:06:05	00:02:15
00:05:20	00:01:55
	00:00:20

Varied Fluency – Measuring Time in Seconds

Greater Depth

9a.

Time in minutes	Time in seconds	True or false?
2 minutes 16 seconds	216 seconds	False
5 minutes and 41 seconds	341 seconds	True
4 minutes and 38 seconds	278 seconds	True
2 minutes and 51 seconds	251 seconds	False

9b.

Time in seconds	Time in minutes	True or false?
125 seconds	3 minutes 14 seconds	False
108 seconds	1 minutes and 48 seconds	True
437 seconds	4 minutes and 37 seconds	False
137 seconds	2 minutes and 17 seconds	True

10a. **18 seconds**

10b. **6 seconds**

11a. **253 seconds, 4 minutes and 26 seconds, 426 seconds, 7 minutes and 23 seconds.**

11b. **444 seconds, 428 seconds, 6 minutes and 21 seconds, 4 minutes and 44 seconds.**

12a.

< 222 seconds	> 237 seconds
00:03:31	00:04:41
00:03:33	00:03:58
00:03:38	

12b.

> 323 seconds	< 303 seconds
00:05:57	00:05:02
00:06:17	00:04:59
00:09:01	