

Year 5 Measures and data Unit 1 (5903)

Additional teacher instructions for practice sheets

These notes indicate which practice sheets are most appropriate for which groups.

Day 1 Busy weekend Sheet 1

Working towards ARE / Working at ARE / Greater Depth
Greater Depth should attempt the Challenge.

Day 2 Hogwarts timetable Sheet 1

Working towards ARE / Working at ARE / Greater Depth
Working at ARE / Working towards ARE complete Parts A and B.
Greater Depth complete Parts B and C.

Day 3 Chigley line Sheet 1

Working towards ARE / Working at ARE / Greater Depth
Working towards ARE answer questions for Timetable A only, then Timetable B if time allows.

Day 4 Find a time later Sheet 1

Working towards ARE / Working at ARE / Greater Depth
Working towards ARE complete Q1-8.
Working at ARE complete Q1-12.
Greater Depth complete Q1-16.

Busy weekend

Sheet 1

Simon and Lizzie are decorating two rooms.
This is how long each task takes:

Living room

Organising workspace:	20 minutes
Cleaning and preparing the walls:	55 minutes
Painting the first coat:	1 hour 32 minutes
Painting the second coat:	1 hour 47 minutes

Dining room

Organising workspace:	18 minutes
Cleaning and preparing the walls:	49 minutes
Painting the first coat:	1 hour 21 minutes
Painting the second coat:	1 hour 38 minutes

Simon and Lizzie start the living room at 9.30 am on Saturday.

1. First they organise their workspace and prepare the walls.
What time do they take a coffee break?
2. At 11:15 am they start painting the first coat.
What time will they finish it and have lunch?
3. They start work on the second coat at 1:58 pm.
What time will they finish painting the living room?

Simon and Lizzie start the dining room at 10:22 am on Sunday.

4. First they organise their workspace and prepare the walls.
What time do they take a coffee break?
5. After a half-hour break they start painting the first coat.
What time will they finish it and have lunch?
6. Lunch takes 1 hour 7 minutes.
What time do they start work on the second coat?
7. What time will they finish painting the dining room?
8. Simon and Lizzie have a cup of tea for 10 minutes when they finish.
Then they want to go out at 4.30 pm.
How long will they have to get ready?

Challenge

Simon and Lizzie want to get the two jobs done in one weekend. They need to finish by 4:30 pm on Sunday. Write a different timetable for when they will do each task and when they will take coffee, lunch or tea breaks.

Hogwarts timetable

Sheet 1

Route number	71	97	53	35	61	47	67
<i>Diagon Alley</i>	07:45	08:45	09:00	14:15	15:00	15:50	19:35
<i>Kings Cross</i>	08:02	09:02	09:17	14:45	15:17	16:07	19:52
<i>Little Whinging</i>	09:15	10:15	-----	16:37	-----	17:20	-----
<i>Ottery St Catchpole</i>	12:45	13:50	-----	20:21	-----	20:50	-----
<i>Gretna Green</i>	18:50	-----	15:33	-----	-----	-----	05:02
<i>Hogwarts</i>	20:58	-----	18:25	-----	23:55	-----	07:36
<i>Hogsmeade</i>	21:07	-----	18:34	-----	00:04	-----	07:45

Part A

Write out Route 71 and Route 67 in 12-hour (am/pm) clock times.

Part B

Use the information in the timetable to answer these questions:

1. How long does Route 47 take from Kings Cross to Little Whinging?
2. How long does Route 71 take from Gretna Green to Hogwarts?
3. How long does Route 61 take from Hogwarts to Hogsmeade?
4. How long does Route 35 take from Little Whinging to Ottery St Catchpole?

Part C

1. Which is the fastest train from Gretna Green to Hogsmeade?
2. Which is the fastest train from Kings Cross to Ottery St Catchpole?

Chigley Line

Sheet 1

Timetables A and B are different options for a morning railway service on the Chigley Line.

	<i>Timetable A</i>	<i>Timetable B</i>
<i>Depart from Chigley Town</i>	07:15	07:05
<i>Arrive at Chigley Parkway</i>	07:19	07:09
<i>Depart from Chigley Parkway</i>	07:22	07:16
<i>Arrive at Trumpton</i>	07:57	07:53
<i>Depart from Trumpton</i>	08:00	08:00
<i>Arrive at Two Towns Junction</i>	08:09	08:09
<i>Depart from Two Towns Junction</i>	08:12	08:16
<i>Arrive at Camberwick Green</i>	08:25	08:29

- How long does it take to travel from Chigley Parkway to Trumpton, using:
a) Timetable A b) Timetable B?
- How long does it take to travel from Trumpton to Two Towns Junction, using:
a) Timetable A b) Timetable B?
- How long does it take to travel from Trumpton to Camberwick Green using:
a) Timetable A b) Timetable B?
- How long does it take to travel from Chigley Town to Trumpton, using:
a) Timetable A b) Timetable B?
- How long does it take to travel from Chigley Parkway to Two Towns junction, using:
a) Timetable A b) Timetable B?
- How long does it take to travel the whole distance from Chigley Town to Camberwick Green, using:
a) Timetable A b) Timetable B?
- What is the same and what is different about the two timetables?

Challenge

Olga lives in Trumpton. She starts work at 08.30 in Camberwick Green. She has a 4-minute walk from the station. Which timetable would be better for her? Why?

Find a time later

Sheet 1

	Departure time	Journey time	Arrival time
1	13:34	18 mins	
2	09:50	23 mins	
3	10:51	45 mins	
4	16:38	27 mins	
5	14:42	35 mins	
6	12:27	15 mins	
7	18:49	25 mins	
8	20:56	34 mins	
9	09:25	1 hour 10 mins	
10	10:17	2 hours 23 mins	
11	15:45	1 hour 35 mins	
12	18:52	1 hour 16 mins	
13	14:38	2 hours 45 mins	
14	13:27	1 hour 36 mins	
15	19:34	3 hours 52 mins	
16	22:56	6 hours 8 mins	

Measures and data

Answers

Day 1 Busy weekend Sheet 1

1. Simon and Lizzie take a coffee break at **10.45am**.
2. They will finish the first coat and have lunch at **12.47pm**.
3. They will finish painting the living room at **3.45pm**.
4. Simon and Lizzie take a coffee break at **11.29am**.
5. They will finish the first coat and have lunch at **1.20pm**.
6. They start work on the second coat at **2.27pm**.
7. They will finish painting the living room at **4.05pm**.
8. Simon and Lizzie will have **15 minutes** to get ready.

Challenge

Simon and Lizzie want to get the two jobs done in one weekend. They need to finish by 4:30 pm on Sunday. Write a different timetable for when they will do each task and when they will take coffee, lunch or tea breaks.

e.g. Saturday	10:00am	Organise workspace in the living room
	10:20am	Prepare the walls in the living room
	11:15am	Coffee break
	11:30am	Start first coat of paint
	1:02pm	Finish first coat of paint and have lunch
	2:00pm	Start second coat of paint
	3:47pm	Living room is finished and time for a cuppa
Sunday	9:00am	Organise workspace in the dining room
	9:18am	Prepare the walls in the dining room
	10:07am	Coffee break and get lunch cooking
	11:15am	Start first coat of paint
	12:36pm	Finish first coat and have some lunch
	1:15pm	Start second coat of paint
	2:53pm	Living room is finished and time for a cuppa

Day 2 Hogwarts timetable Sheet 1

Part A

Write out Route 71 and Route 67 in 12-hour (am/pm) clock times.

Route 71		Route 67	
Diagon Alley	7:45am	Diagon Alley	7:35pm
Kings Cross	8:02am	Kings Cross	7:52pm
Little Whinging	9:15am	Little Whinging	-----
Otter St Catchpole	12:45pm	Otter St Catchpole	-----
Gretna Green	6:50pm	Gretna Green	5:02am
Hogwarts	8:58pm	Hogwarts	7:36am
Hogsmeade	9:07pm	Hogsmeade	7:45am

Part B

Use the information in the timetable to answer these questions:

1. How long does Route 47 take from Kings Cross to Little Whinging? **1 hour 13 mins**
2. How long does Route 71 take from Gretna Green to Hogwarts? **2 hours 8 mins**
3. How long does Route 61 take from Hogwarts to Hogsmeade? **9 minutes**
4. How long does Route 35 take from Little Whinging to Otter St Catchpole? **3 hours 44 mins**

Measures and data

Answers

Day 2 Hogwarts timetable Sheet 1 continued

Part C

1. Which is the fastest train from Gretna Green to Hogsmeade? **Route 71**
2. Which is the fastest train from Kings Cross to Ottery St Catchpole? **Route 71 and Route 47 are both same time at 4 hours 43 minutes**

Day 3 Chigley line Sheet 1

1. How long does it take to travel from Chigley Parkway to Trumpton, using:
a) Timetable A **35 mins** b) Timetable B? **37 mins**
2. How long does it take to travel from Trumpton to Two Towns Junction, using:
a) Timetable A **9 mins** b) Timetable B? **9 mins**
3. How long does it take to travel from Trumpton to Camberwick Green using:
a) Timetable A **25 mins** b) Timetable B? **29 mins**
4. How long does it take to travel from Chigley Town to Trumpton, using:
a) Timetable A **42 mins** b) Timetable B? **48 mins**
5. How long does it take to travel from Chigley Parkway to Two Towns junction, using:
a) Timetable A **47 mins** b) Timetable B? **53 mins**
6. How long does it take to travel the whole distance from Chigley Town to Camberwick Green, using:
a) Timetable A **1 hour 10 mins** b) Timetable B? **1 hour 24 mins**
7. What is the same and what is different about the two timetables?
Same: Time it takes to get from Chigley Town to Chigley Parkway, 4 minutes.
Both trains depart from Trumpton at the same time, 08:00.
Both trains take 9 minutes to get from Trumpton to Two Towns Junction arriving at 08:09.
Both trains take 13 minutes to get from Two Towns Junction to Camberwick Green.

Different: Trains on Timetable B spend longer waiting at each station between arrival and departure.
Train from Chigley Parkway is 2 minutes slower on timetable B than on timetable A to Trumpton.

Challenge

Olga lives in Trumpton. She starts work at 08.30 in Camberwick Green. She has a 4-minute walk from the station.

Which timetable would be better for her? **A**

Why? **Although a train leaves at 8:00am on both timetables if she used timetable B she would be late for work as it arrives at 8:29am and then only has one minute to complete a four minute walk.**

Measures and data

Answers

Day 4 Find a time later Sheet 1

	Departure time	Journey time	Arrival time
1	13:34	18 mins	13:52
2	09:50	23 mins	10:13
3	10:51	45 mins	11:36
4	16:38	27 mins	17:05
5	14:42	35 mins	15:17
6	12:27	15 mins	12:42
7	18:49	25 mins	19:14
8	20:56	34 mins	21:30
9	09:25	1 hour 10 mins	10:35
10	10:17	2 hours 23 mins	12:40
11	15:45	1 hour 35 mins	17:20
12	18:52	1 hour 16 mins	20:08
13	14:38	2 hours 45 mins	17:23
14	13:27	1 hour 36 mins	15:03
15	19:34	3 hours 52 mins	23:26
16	22:56	6 hours 8 mins	05:04