

Bronze

1a. 20 minutes; A, B and D

2a. No; 40 minutes

3a. 9:40am

1b. 14:10 – 14:50

2b. No. Quiz Time is only on for 2 hours whereas The News is on for 3 hours.

3b. No. The coach only takes 20 minutes.

Silver

4a. C; 600 seconds

5a.

London Euston	18:35	19:00	19:25	19:50
Watford	18:50	19:15	19:40	20:05
Milton Keynes	19:10	19:35	20:00	20:25
Coventry	19:45	20:10	20:35	21:00
Birmingham	20:00	20:25	20:50	21:15

4b. Timetables should include:

Judo – 18:30 to 19:25

Karate – 18:40 to 19:15

Taekwondo – 18:10 to 19:30

5b. Yes. Space Invaders is on for 5.5 hours in total.

6b. No. The journey takes 35 minutes which is 2,100 seconds.

6a. 17:15

Gold

7a. Birkenhead – 19:43; Hamilton – 19:50;

Lime Street – 19:57; 240 seconds

8a.

Bankside Pier	12:19	12:46	13:04	13:28
Blackfriars Pier	12:22	12:49	13:07	13:31
Embankment Pier	12:29	12:56	13:14	13:38
Millbank Pier	12:37	13:04	13:22	13:46
Vauxhall Pier	12:40	13:07	13:25	13:49
Battersea Pier	12:43	13:10	13:28	13:52

7b. Timetables should include:

London 17:25

Manchester 17:07

Glasgow to 17:53

Birmingham to 17:38

8b. No. Both The Island and The News are on for 4 hours.

9b. No. 1,260 seconds is 21 minutes. The journey takes 1 hour and 21 minutes which is 4,860 minutes.

9a. 12:23 – 13:31

Challenge

1. Charlotte is sight-seeing in London and catches the bus to see every landmark in a day. She walks to the London Eye to start her day at 09:00 and needs to be finished before 18:00. She hopes to spend at least an hour at each landmark. The timetable shows the bus departure times throughout the day at each landmark.

London Eye	09:30	every 30 minutes until	16:30
Houses of Parliament	09:45	every 30 minutes until	16:45
Buckingham Palace	09:59	every 30 minutes until	16:59
The Shard	10:11	every 30 minutes until	17:11
St. Paul's Cathedral	10:24	every 30 minutes until	17:24

Investigate the different combinations of bus times that she will need to take in order to see all the landmarks.

She can get the 10:30 bus at London Eye; the 12:15 bus at the Houses of Parliament; the 13:59 bus at Buckingham Palace; the 15:41 bus at the Shard and arrive at St. Paul's Cathedral at 15:54.

She doesn't get up until after 09:30 but arrives at the London Eye for 10:30. Which bus times does she need to take now? Can she still see all the landmarks before 18:00?

Yes, she can see all of the landmarks before 18:00 but she can only spend 36 minutes at St. Paul's Cathedral. She can get the 12:00 bus at London Eye; the 13:45 bus at the Houses of Parliament; the 15:29 bus at Buckingham Palace; the 17:11 bus at the Shard and arrive at St. Paul's Cathedral at 17:24.

2. Tom makes online videos on Metube as his job. He is trying to organise his weekly work schedule. He has started creating a timetable. The Hitch Livestreams cannot be moved. He must include:

SLEEP at least 8 hours per day	METUBE at least 8 hours per day	FOOD at least 2 hours per day	SEE FRIENDS at least 3 hours per week	RELAX at least 2 hours per day
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Explore how he could organise his timetable for the rest of the week.

	00:00 – 04:00	04:00 – 08:00	08:00 – 12:00	12:00 – 16:00	16:00 – 20:00	20:00 – 00:00			
Mon	SLEEP	FOOD	METUBE	FOOD	METUBE	FRIENDS	FOOD	RELAX	SLEEP
Tues	SLEEP	FOOD	METUBE	HITCH LIVESTREAMS	METUBE	FOOD	SLEEP	RELAX	FOOD
Weds	SLEEP	FOOD	METUBE	RELAX	FOOD	FRIENDS	SLEEP		
Thurs	SLEEP	FOOD	METUBE	RELAX	FOOD	METUBE	FOOD	SLEEP	
Fri	SLEEP	METUBE	FOOD	SLEEP	RELAX	HITCH LIVESTREAMS			