

Discussion Problems

Step 6: Timetables

National Curriculum Objectives:

Mathematics Year 5: (5M4) [Solve problems involving converting between units of time](#)

About this resource:

This resource has been designed for pupils who understand the concepts within [this step](#). It provides pupils with more opportunities to enhance their reasoning and problem solving skills through more challenging problems. Pupils can work in pairs or small groups to discuss with each other about how best to tackle the problem, as there is often more than one answer or more than one way to work through the problem.

There may be various answers for each problem. Where this is the case, we have provided one example answer to guide discussion.

We recommend self or peer marking using the answer page provided to promote discussion and self-correction.

More [Year 5 Converting Units](#) resources.

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

Timetables

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 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?

DP

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

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	FRIENDS	FOOD	RELAX	SLEEP
Tues				HITCH LIVESTREAMS						
Weds										
Thurs										
Fri								HITCH LIVESTREAMS		

DP

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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.

DP

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	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			

DP