1) 

| Time | 24 -Hour Clock Time |
| :--- | :--- |
| half past 7 in the evening | $19: 30$ |
| $9: 47$ a.m. | $09: 47$ |
| 13 minutes to 10 in the evening | $21: 47$ |
| midnight | $24: 00$ or 00:00 |
| midday | $17: 15$ |
| quarter to eleven in the evening. | $12: 00$ |
| five a.m. | $22: 45$ |
| $8: 36$ p.m. | $05: 00$ |
| Il:00 p.m. | 20.36 |

2) 

| Bus 1 Timetable |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Sports Centre | $07: 30$ | $09: 00$ | $12: 15$ | $13: 45$ | $17: 00$ |
| Cinema | $07: 43$ | $09: 13$ |  | $13: 58$ | $17: 13$ |
| Town Centre | $07: 50$ | $09: 20$ | $12: 35$ | $14: 05$ | $17: 20$ |
| Park | $08: 11$ | $09: 41$ | $12: 56$ | $14: 26$ | $17: 41$ |
| Train Station | $08: 26$ | $09: 56$ | $13: 11$ | $14: 41$ |  |

a) 56 minutes
b) 12:15
c) $14: 05$
d) Yes. You will arrive at the cinema at 14:06 with four minutes to spare.

1) a) False. There is no bus at 13:00 or at 14:00.
b) True.
c) False. The latest bus that will get you from the theatre to the hospital is the 12:43 bus, which will get you to the hospital at 13:50.
d) False. The journey from the museum to the supermarket takes 77 minutes while the journey from the theatre to the hospital takes 67 minutes.
2) 

| Train 1 Timetable |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Twinkl Town | 05:50 | 06:50 | 07:50 | 08:50 | 09:50 |
| Zoo | 06:08 | 07:08 | 08:08 | 09:08 | 10:08 |
| Twinkl Towers | 06:23 | 07:23 | 08:23 | 09:23 | 10:23 |
| Stadium | 07:44 | 08:44 | 09:44 | 10:44 | $11: 44$ |
| City Centre | 08:32 | 09:32 | 10:32 | 11:32 | 12:32 |
| Airport | $11: 20$ | $12: 20$ | $13: 20$ | $14: 20$ | 15:20 |

Timetable answers will vary as the task is open-ended. The timetable shown is one possible example.

1) Complete the table, by converting the times into 24 -hour clock times and vice versa.

| Time | 24-Hour Clock Time |
| :--- | :--- |
| half past 7 in the evening |  |
| $9: 47$ a.m. |  |
| 13 minutes to 10 in the evening |  |
| midnight |  |
| midday |  |
| quarter to eleven in the evening |  |
| five a.m. |  |

2) Look at this bus timetable and complete the missing times:

| Bus Timetable |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Sports Centre | $07: 30$ |  | $12: 15$ | $13: 45$ | $17: 00$ |  |
| Cinema | $07: 43$ | $09: 13$ |  |  | $17: 13$ |  |
| Town Centre |  | $09: 20$ | $12: 35$ | $14: 05$ |  |  |
| Park | $08: 11$ | $09: 41$ | $12: 56$ |  | $17: 41$ |  |
| Train Station | $08: 26$ |  | $13: 11$ | $14: 41$ |  |  |

Use the timetable to answer the following questions.
a) How long does it take to travel from the sports centre to the train station? $\qquad$
b) You are at the sports centre but want to arrive at the park before 1 p.m. What time should you catch the bus?
c) Luke is shopping in town but needs to catch his train at $5: 30 \mathrm{pm}$. What time is the last bus he can catch?
d) You are travelling on the $13: 45$ bus but it is running 8 minutes late. You are going to the cinema to watch a movie which starts at 2:10 p.m. Will you get there in time to watch it?

1) Look at the bus timetable:

| Bus 2 Timetable |  |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Station | $06: 00$ | $07: 00$ | $08: 00$ | $09: 00$ | $10: 00$ | $12: 00$ |  | $15: 00$ | $16: 00$ | $17: 00$ |
| Theatre | $06: 43$ | $07: 43$ | $08: 43$ | $09: 43$ | $10: 43$ | $12: 43$ |  |  | $16: 43$ | $17: 43$ |
| Museum | $07: 20$ | $08: 20$ | $09: 20$ | $10: 20$ | $11: 20$ | $13: 20$ | $15: 20$ |  |  | $18: 20$ |
| Hospital | $07: 50$ | $08: 50$ | $09: 50$ | $10: 50$ | $11: 50$ | $13: 50$ | $15: 50$ | $16: 50$ |  |  |
| Supermarket | $08: 37$ | $09: 37$ | $10: 37$ | $11: 37$ | $12: 37$ | $14: 37$ | $16: 37$ | $17: 37$ | $18: 37$ |  |

Now read these statements and decide if they are true or false, explaining your reasoning.
a) A bus leaves the station on every hour.
$\qquad$
b) It takes exactly two hours and thirty-seven minutes to travel from the station to the supermarket.
$\qquad$
c) If you take the correct bus from the theatre to the hospital, you can arrive at the hospital at exactly 3 pm .
$\qquad$
$\qquad$
d) The journey time from the museum to the supermarket is shorter than the journey time from the theatre to the hospital.


1) Use the statements below in order to create your own train timetable, using the 24-hour clock.

| Train Timetable |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| Town |  |  |  |  |  |  |
| Zoo |  |  |  |  |  |  |
| Towers |  |  |  |  |  |  |
| Stadium |  |  |  |  |  |  |
| City Centre |  |  |  |  |  |  |
| Airport |  |  |  |  |  |  |

The train always leaves Twinkl Town at ten minutes to the hour.
The journey time to Twinkl Towers from the Twinkl Town station is between 30 and 35 minutes.

The train always leaves the zoo between five and quarter past the hour.
The stadium is reached 48 minutes before the city centre station.
The journey time between the city centre station and the airport is between 2 hours 45 minutes and 3 hours.
2) Now create your own timetable questions based on the timetable you have created.


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## Diving into Mastery Guidance for Educators

Each activity sheet is split into three sections, diving, deeper and deepest, which are represented by the following icons:


These carefully designed activities take your children through a learning journey, initially ensuring they are fluent with the key concept being taught; then applying this to a range of reasoning and problem-solving activities.

These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section and in fact, others may 'dive straight in' to the 'Deepest' section if they have already mastered the skill and are applying this to show their depth of understanding.


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Look at this bus timetable and complete the missing times:

| Bus Timetable |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Twinkl Station | $06: 37$ | $09: 20$ | $12: 00$ | $18: 45$ |
| Twinkl Airport | $06: 57$ | $09: 40$ | $12: 20$ | $19: 05$ |
| Twinkl City Centre | $07: 15$ | $09: 58$ | $12: 38$ | $19: 23$ |
| Twinkl Hotel | $07: 43$ | $10: 26$ | $13: 06$ | $19: 51$ |

Which bus should I catch from Twinkl Station to arrive at the Twinkl Hotel by 8 p.m.? You would need to catch the 18:45 bus.

If I catch the 9:40 bus from Twinkl Airport, what time will I arrive at the Twinkl Hotel? You will arrive at 10:26.

How long will my journey take to the Twinkl City Centre if I catch the 06:37 bus from Twinkl Station? It will take 38 minutes.

This is part of a school timetable:

|  | $9: 15-10: 00$ | $10: 00-10: 45$ | Break <br> $(10: 45-11: 15)$ | $11: 15-12: 30$ | Lunch <br> $(12: 30-1: 15)$ | $1: 15-2: 15$ | $2: 15-3: 15$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mon | English | PE |  | DT |  | Science | Maths |
| Tue | Maths | Music |  | English |  | PE | Computing |
| Wed | English | Science |  | History |  | Maths | Geography |

Decide if the following statements are true or false, explaining your reasoning.
At 13:50 on a Tuesday, I would be in a science lesson.
False. You would be in a PE lesson.
There is the same amount of time spent in maths as there is English.
True. 165 minutes are spent in maths and 165 minutes in English.
There is more time spent at break and lunch than in science, history, geography and computing combined. False. 225 minutes are spent at break and lunch compared to 300 minutes in science, history, geography and computing.

## Timetables

Use the statements below in order to create your own school timetable for Monday, Tuesday and Wednesday: Here is one example timetable.

|  | 9:15-10:00 | 10:00-10:45 | Break <br> $(10: 45-11: 15)$ | $11: 15-12: 30$ | Lunch <br> $(12: 30-1: 15)$ | $1: 15-2: 15$ | $2: 15-3: 15$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mon | English | Maths |  | English |  | Maths | PE |
| Tue | Computing | Maths |  | PE |  | Maths | Computing |
| Wed | PE | English |  | Maths |  | Music | English |

There should be between 190 and 240 minutes of English in total. Music should take place from 1:15 until 2:15.

PE should be taught every day and one lesson should last an hour.

Computing should be the first lesson and the last lesson on one day.


## Timetables

Dive in by completing your own activity!



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1) Complete the table, by converting the times into 24 -hour clock times and vice versa.

| Time | 24-Hour Clock Time |
| :--- | :--- |
| half past 7 in the <br> evening |  |
| 9:47 a.m. |  |
| 13 minutes to 10 in the <br> evening |  |
| midnight | evening |
| muarter to eleven |  |
| in the evening |  |$\quad$| midday |
| :--- |
| five a.m. |

2) Complete the Bus 1 Timetable by converting the times into 24 -hour clock times and vice versa.

Use the timetable to answer the following questions.
a) How long does it take to travel from the sports centre to the train station?
b) You are at the sports centre but want to arrive at the park before 1 p.m. What time should you catch the bus?
c) Luke is shopping in town but needs to catch his train at 5:30pm. What time is the last bus he can catch?
d) You are travelling on the 13:45 bus but it is running 8 minutes late. You are going to the cinema to watch a movie which starts at 2:10 p.m. Will you get there in time to watch it?

1) Complete the table, by converting the times into 24 -hour clock times and vice versa.

| Time | 24-Hour Clock Time |
| :---: | :---: |
| half past 7 in the evening |  |
| 9:47 a.m. |  |
| 13 minutes to 10 in the evening |  |
| midnight |  |
| evening |  |
| midday |  |
| quarter to eleven in the evening. |  |
|  | 20:36 |
|  | 23:00 |
|  |  |

2) Complete the Bus 1 Timetable by converting the times into 24-hour clock times and vice versa.

Use the timetable to answer the following questions.
a) How long does it take to travel from the sports centre to the train station?
b) You are at the sports centre but want to arrive at the park before 1 p.m. What time should you catch the bus?
c) Luke is shopping in town but needs to catch his train at 5:30pm. What time is the last bus he can catch?
d) You are travelling on the 13:45 bus but it is running 8 minutes late. You are going to the cinema to watch a movie which starts at 2:10 p.m. Will you get there in time to watch it?

1) Look at Bus Timetable 2.

Now read these statements and decide if they are true or false, explaining your reasoning.
a) A bus leaves the station on every hour.
b) It takes exactly two hours and thirty-seven minutes to travel from the station to the supermarket.
c) If you take the correct bus from the theatre to the hospital, you can arrive at the hospital at exactly 3 pm .
d) The journey time from the museum to the supermarket is shorter than the journey time from the theatre to the hospital.


1) Create your own timetable using the Train Timetable and the statements below. It should use the 24 -hour clock.


The train always leaves Twinkl Town at ten minutes to the hour.

The journey time to Twinkl Towers from the Twinkl Town station is between 30 and 35 minutes.

The train always leaves the zoo between five and quarter past the hour.

The stadium is reached 48 minutes before the city centre station.

The journey time between the city centre station and the airport is between 2 hours 45 minutes and 3 hours.
2) Now create your own timetable questions based on the timetable you have created.


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d) The journey time from the museum to the supermarket is shorter than the journey time from the theatre to the hospital.


1) Create your own timetable using the Train Timetable and the statements below. It should use the 24 -hour clock.

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The journey time to Twinkl Towers from the Twinkl Town station is between 30 and 35 minutes.

The train always leaves the zoo between five and quarter past the hour.

The stadium is reached 48 minutes before the city centre station.

The journey time between the city centre station and the airport is between 2 hours 45 minutes and 3 hours.
2) Now create your own timetable questions based on the timetable you have created.


| Bus 1 Timetable |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Sports Centre | $07: 30$ |  | $12: 15$ | $13: 45$ | $17: 00$ |  |
| Cinema | $07: 43$ | $09: 13$ |  |  | $17: 13$ |  |
| Town Centre |  | $09: 20$ | $12: 35$ | $14: 05$ |  |  |
| Park | $08: 11$ | $09: 41$ | $12: 56$ |  | $17: 41$ |  |
| Train Station | $08: 26$ |  | $13: 11$ | $14: 41$ |  |  |


| Bus 2 Timetable |  |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Station | $06: 00$ | $07: 00$ | $08: 00$ | $09: 00$ | $10: 00$ | $12: 00$ |  | $15: 00$ | $16: 00$ | $17: 00$ |
| Theatre | $06: 43$ | $07: 43$ | $08: 43$ | $09: 43$ | $10: 43$ | $12: 43$ |  |  | $16: 43$ | $17: 43$ |
| Museum | $07: 20$ | $08: 20$ | $09: 20$ | $10: 20$ | $11: 20$ | $13: 20$ | $15: 20$ |  |  | $18: 20$ |
| Hospital | $07: 50$ | $08: 50$ | $09: 50$ | $10: 50$ | $11: 50$ | $13: 50$ | $15: 50$ | $16: 50$ |  |  |
| Supermarket | $08: 37$ | $09: 37$ | $10: 37$ | $11: 37$ | $12: 37$ | $14: 37$ | $16: 37$ | $17: 37$ | $18: 37$ |  |


| Train Timetable |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: |
| Town |  |  |  |  |  |  |  |
| Zoo |  |  |  |  |  |  |  |
| Towers |  |  |  |  |  |  |  |
| Stadium |  |  |  |  |  |  |  |
| City Centre |  |  |  |  |  |  |  |
| Airport |  |  |  |  |  |  |  |

