GCSE - Numeracy and Mathematics	Tier: Intermediate	Grade: E/D	GwE
Topic: Time Zones			

Starter

How many seconds are there in one day?

Top Tips!

- So that 'midday' is close to the middle of the day, the world is divided into different time zones
- Ensure you work systematically and calculate the time of each event in both time zones e.g. in a table

	Manchester	New York
Flight departs	07:23	02:23
Flight arrives	14:14	09:14

Skills:

1) The rugby World Cup final is broadcast live across the world. One particular year it was held in Wales and the kickoff was 4pm local time. Where Beth lives, it is 17 hours behind Wales. When did the kickoff occur in her local time?

2) A plane left airport A at 8:30pm on Tuesday and landed at airport B at 9pm (local time) on the same day.
If airport B is 19 hours behind airport A, how long did the trip take?

Examination Questions:

2013 Summer Linear P2 Higher Qu 3 (b)

Miriam knows that when it is 1p.m. in London it is 6p.m. local time in Karachi, Pakistan.
Miriam is booked onto a flight leaving London on Tuesday at 13:50.
The flight time is 7 hours 51 minutes.
On which day and at what local time should Miriam land in Karachi? [4]

2012 Winter Unitised U1 Higher Qu 6

Helen and James are travelling by plane from London to Los Angeles. They see the following information when they arrive at the airport on Tuesday.

Current day and time	
London	Los Angeles
Tuesday 15:40	Tuesday 07:40

Their flight leaves in two and a half hours' time. The flight time between London and Los Angeles is 11 hours and 20 minutes. Give the time and the day in Los Angeles when they land. [4]

Assessment for Learning

Video / QR code

GCSE - **Numeracy and Mathematics**	**Tier:** Intermediate	**Grade:** E/D	
Topic: Time Zones			

Starter

How many seconds are there in one day?

86400 seconds

Top Tips!

- So that 'midday' is close to the middle of the day, the world is divided into different time zones
- Ensure you work systematically and calculate the time of each event in both time zones e.g. in a table

	Manchester	New York
Flight departs	07:23	02:23
Flight arrives	14:14	09:14

Skills:

3) The rugby World Cup final is broadcast live across the world. One particular year it was held in Wales and the kickoff was 4pm local time. Where Beth lives, it is 17 hours behind Wales. When did the kickoff occur in her local time?

4pm – 17hours = 11pm

4) A plane left airport A at 8:30pm on Tuesday and landed at airport B at 9pm (local time) on the same day.
If airport B is 19 hours behind airport A, how long did the trip take?

8:30pm – 19 hours = 1:30am

1:30am – 9pm = 19 hours 30 minutes

Examination Questions:

2013 Summer Linear P2 Higher Qu 3 (b)

Miriam knows that when it is 1p.m. in London it is 6p.m. local time in Karachi, Pakistan.
Miriam is booked onto a flight leaving London on Tuesday at 13:50.
The flight time is 7 hours 51 minutes.
On which day and at what local time should Miriam land in Karachi?   [4]

Wednesday – 13:50 + 5 hours + 7 hours 51 minutes = 02:41 or 2:41am

2012 Winter Unitised U1 Higher Qu 6

Helen and James are travelling by plane from London to Los Angeles. They see the following information when they arrive at the airport on Tuesday.

Current day and time	
London	Los Angeles
Tuesday 15:40	Tuesday 07:40

Their flight leaves in two and a half   hours' time. The flight time between London and Los Angeles is 11 hours and 20 minutes. Give the time and the day in Los Angeles when they land.   [4]

8 hours difference in time in London and Los Angeles
Take off time 18:10 (London)

18:10 + 11 hours 20 minutes = 05:30

Time in Los Angeles = **21:30 Tuesday**

Assessment for Learning

Video / QR code