

LO 3: Tourism Geography, Attraction and Travel Trends

AS 1: Demonstrate an understanding of time zones and daylight saving time and describe the impact that this has on travel planning and travelling.

SOME IMPORTANT POINTS ABOUT TIME ZONES

Longitudes play an important part in defining time

- The earth rotates from West to East
- It takes 24 hours for the earth to rotate 360° around the sun, i.e. one day
- It takes 1 hour for the earth to rotate 15° around the sun
- All time is calculated from the central meridian (0°) called the **Greenwich Meridian**
- **The International Date Line** (180°) marks the spot on the earth where a new calendar day begins
- The earth is divided into 24 time zones, 12 to the east and 12 to the west of the Greenwich meridian.
- All places that fall to the East of the Greenwich Meridian are **AHEAD** in time while all places that fall to the West of the Greenwich Meridian are **BEHIND** time.
- **Daylight Saving Time** is a system where a country moves their standard time one hour ahead during the summer months in order to make maximum use of the summer sun. The time is moved back an hour when the winter months begin.
- **Elapsed Time** is the actual time lost during a journey, i.e. the traveling
- A **Time Zone Map** is used in the calculation of Time Zone problems.

CALCULATING TIME ZONE PROBLEMS

TWO methods can be used when one calculates time zone problems. You will need to use a time zone map for both methods.

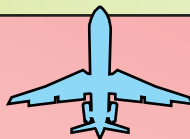
EXAMPLE

A tourist travels from New Delhi, India to Nairobi. The tourist leaves New Delhi at 12h00 and arrives in Nairobi 12 hours later. What will the local time be upon the tourist's arrival in Nairobi?

METHOD 1 STEPS TO FOLLOW

1. Locate both places on the Time Zone Map and indicate the meridians that they take their time from
2. Find the difference in their longitudes
3. Divide the difference calculated in Step 2 by 15°. This will give you the number of hours there are between the two places
4. Determine whether the place in question, i.e. the place where the time is unknown, is East or West of the known place. If it is East of the known place it will be ahead in time but if it is West it will be behind time.
5. Add or Subtract the number of hours calculated in Step 3 accordingly
6. Add flight time

1. **Nairobi (30°E)** **New Delhi (75°E)**
2. $75^\circ - 30^\circ = 45^\circ$
3. $45^\circ \div 15^\circ = 3$ hours
4. Nairobi is West of New Delhi therefore **BEHIND** time
5. 12h00 - 3 hours = 09h00
6. 09h00 + 12 hours (flight time) = 21h00



Therefore the local time upon his arrival in Nairobi will be 21h00 the same day.

METHOD 2 STEPS TO FOLLOW

1. Locate both places on the Time Zone Map and indicate the meridians that they take their time from
2. Find the difference in their longitudes. This will give you the number of hours there are between the two places. If both places are in the same hemisphere you will **SUBTRACT**, if both places are in different hemispheres you will **ADD**.
3. Determine whether the place in question, i.e. the place where the time is unknown, is East or West of the known place. If it is East of the known place it will be ahead in time but if it is West it will be behind time.
4. Add or Subtract the number of hours calculated in Step 3 accordingly.
5. Add flight time

1. **Nairobi (30°E) -2** **New Delhi (75°E) +5**

2. Both places are in the same hemisphere therefore you will **SUBTRACT**, i.e. $5 - 2 = 3$ Hours

3. Nairobi is West of New Delhi therefore **BEHIND** time

4. 12h00 - 3 hours = 09h00

5. 09h00 + 12 hours (flight time) = 21h00



Therefore, the local time upon his arrival in Nairobi will be 21h00 the same day.

IMPACTS CREATED BY TIME ZONES

1. JETLAG

Crossing time zones can cause you to wake up during the night or make it difficult to get to sleep. This will lead to you becoming tired and disoriented for days after arriving at your destination. A lack of concentration and motivation, especially for any activity that requires some effort or skill, like driving, reading, or discussing a business deal. But even simple activities can become harder. Your ability to really enjoy that vacation is significantly reduced.

FIGHTING JETLAG: 5 SIMPLE STEPS

1. Regulate your sleep pattern. Be consistent about what time you go to sleep and what time you wake up.
2. Make sure you are having a healthy and balanced diet
3. Exercise regularly
4. Start to slowly adjust your bedtime according to the local time of your preferred destination
5. Reduce all stress on the days leading up to travel.

2. COPING WITH DAYLIGHT SAVING TIME

Business relations become difficult if one is dealing with countries that observe daylight saving time. Many businesses have opted to adjust their own business hours to suit the needs of their clients who enjoy DST.

