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| **IB DP Geography Urban Environments – Urban Microclimate** |



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| **Task 1** – Define a microclimate  |
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| **Task 2** – Explain briefly the Urban Heat Island Effect making reference to the image at the top of this page.  |
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| **Task 3** – Using the information on page 15 of the embedded PDF document on ibgeographypods, complete the key data to show the impact of the urban heat island effect.  |
| **Weather Element** | **Urban Heat Island Effect** |
| Sunshine Duration |  |
| Annual Mean Temperatures °C |  |
| Total Precipitation  |  |
| Number of Rain Days  |  |
| Number of Days with Snow |  |
| Amounts of Condensed Nuclei |  |

**Task 4** - You are now going to look at how and why the microclimate can be impacted using the Met Office’s example of London within the PDF. You task is to make a 50 word spider diagram summary of the causes and effects around each visual below.

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| **Urban Temperature Impacts** |



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| **Urban Precipitation Impacts** |



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| **Urban Smog Impacts** |



[Check out this Met Office video](https://www.youtube.com/watch?v=Dk9VHHFUbqo) to learn about a temperature inversion. To put this into context, you may see this in winter in the mountain valleys where all the smoke from wood burning chimneys forms a layer at the bottom of the valley. [This photo](https://ei.marketwatch.com/Multimedia/2019/04/24/Photos/ZQ/MW-HI185_AirPol_20190424130149_ZQ.jpg?uuid=a6a59b96-66b2-11e9-ae6b-9c8e992d421e) shows that process in action over an urban area.

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| **Urban Wind Impacts** |



Extension activity – Check out this amazing 10 minute video to see how a design fault in a building in Leeds (UK) caused people to be blown off their feet!

<https://www.youtube.com/watch?v=Y0PVrGZGbRA>