

Exemplar Independent Investigation Proposal Form – No.5



AO Comment (Title and hypothesis): The student has chosen a suitable title that is well linked to the specification but the teacher is encouraging the student to think about elaborating on the links between the atmosphere and human activity. Strong background research will enable the student to explore this link in full. It is important to encourage students to undertake secondary research independently.

You have chosen a suitable geographical area for your study and your title is well focused. There is plenty of opportunity for primary data collection but remember that it is important to give your investigation context – particularly as we have not covered the concept of microclimates in class. We have plenty of journals, books and magazines in the department so that you can source any relevant material.

This title is well linked to the specification but can you explain clearly how you might develop this theme of impacts of human activity? You will need to do some further reading on this. Could you relate these ideas to current theory in any way?

You will need to show exactly what you understand by microclimate and the factors that might impact upon how it might change with distance from the CBD. You should research this thoroughly.

Think carefully about the necessary data you will need to collect to make informed judgements about the changes that are recorded as you move further from the CBD.

Do you have experience of using your measuring equipment? Is this important? You note that you plan to collect all this data individually. Have you considered any potential benefits or pitfalls of undertaking the data collection as a group?

Is it important to give full consideration to your sampling strategies. You note that you will collect data along a transect. **Could you use multiple transects to collect your data?** How do you intend to sample along the transect? You will need to explain this thinking in detail as part of your finished investigation.

Candidate name:		Candidate number	Examination Series
Centre name		Centre number	
Investigation title: Does the distance from the CBD have an impact on the microclimate of Swansea?		How the title links to specification content: This looks at section 3.5.6 Impacts of human activities on the atmosphere at local and regional scales.	
Planned investigation hypothesis or question/sub-questions: There are three sub hypotheses; (1) The temperature will decrease the further from the CBD you travel. (2) The further from the CBD the higher the wind speed. (3) The humidity will decrease the further from the CBD you travel.			
Investigation focus – indication of how the enquiry will enable the candidate to address their investigation title and explore their theme in relation to the chosen geographical area. I want to see if human activity influences the microclimate on different areas of Swansea. As I live in the town centre it is feasible for me to collect the data in this area. I will move from the CBD outwards towards the coast along a 1km long transect and take various measurements to see how the microclimate changes and see if built up areas or the coastal areas have the greater impact on the figures recorded.			
Planned methodology – indication of qualitative and/or quantitative techniques including primary and, if relevant, secondary data collection techniques, indication of the planned sampling strategy or strategies. I will collect data along a transect line from the CBD towards the coast, collecting data on wind direction and wind speed (hand held anemometer and compass), humidity (digital hygrometer), temperature (digital thermometer) and cloud cover (estimate). This data will all be collected on an individual basis.		Individual: <input checked="" type="checkbox"/>	Group data collection: <input type="checkbox"/>
Teacher's approval and comments Although your title is suitable and well-linked to the specification, this proposal requires further work so that you may consider any sources of secondary research that could support your study. You will also need to plan a pilot study to iron out any potential problems with your data collection strategy.		Approved: <input type="checkbox"/>	Not approved: <input checked="" type="checkbox"/>
Teacher signature		Date	

AO Comment (Focus): The teacher is also encouraging the student to think in greater depth about some elements that have been identified e.g. clear definitions of 'built up' and 'coastal areas' during the study. Advising the candidate to consider the meteorological conditions is giving very specific guidance on how to improve the reliability of the data collected. Any advice should be general e.g. 'Can you think of any factors that might impact the reliability of your data and your conclusions?'

Consideration needs to be given to how you will define built-up and coastal areas. Can you think of ways in which these could be defined effectively?

Will you need to consider the meteorological conditions under which you collect your data e.g. winter high pressure and how these conditions could impact your data collection and conclusions?

AO Comment (Methodology): The teacher guides the student to think about the viability of undertaking complex data collection and recording on an individual basis. It is permissible for students to work together to collect primary data as long as all secondary data collection, presentation and analysis is completed independently. The teacher provides some good general guidance on the importance of considering a sampling strategy very carefully. However, advice on using multiple transects is too specific. Any such comments would need to be taken into consideration at the marking stage and would need to be disclosed on the marking sheet submitted with the moderated sample.

Are you aware of any other data sources that could be used to compliment/support your findings? Think back through all the different data sources we have discussed in class. Is there any historical data available to support your theory?

Remember that it is also good practice to complete a risk assessment, particularly if you are going to be collecting data alone in a busy town centre. Try and research the kinds of issues that could be included on this risk assessment.

AO Comment (Teacher approval): The teacher is giving important advice on secondary research that will provide the context for the investigation. However, the instruction to complete a pilot study is too specific and is leading the student to re-think the methodology. Advice previously given on considering group work is more general and therefore permissible.