



## **XinaBox Project “Visible and Ultra-Violet Light Variations”**

Kit required: XinaBox XK01  
Project Duration: 30 minutes  
Subjects: Physics  
Presentation skills  
Desired outcome: Presentation of finding to group

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### Questions:

- How does visible and ultraviolet light vary across four locations or light sources?
- Is there a difference in characteristics between natural and artificial light? Do artificial light sources also differ and how?
- Do the different wavelengths of light propagate, reflect and be absorbed differently?

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### Focus:

- Understanding the differences between natural and artificial light
- Understanding the difference in propagation and absorption of visible, UVA and UVB light
- Planning a project
- Data analysis interpretation and results presentation

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### Prior Learning

- Planning
- Understanding light properties, wavelengths, sources
- Identifying which data to collect to answer the questions being posed
- Identifying different locations that will allow for variations in data to be observed
- Assembling the XinaBox kit, collecting data, data analysis and interpretation
- Oral presentation of results

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### Learning Objectives:

- Planning a project towards a desired outcome
- Answering questions as posed
- Linking theory of light with data collected to explain the theory
- Understanding nature, laws of nature, how they impact our lives
- Using technology to collect and analyse data
- Effective communication