



Photonics Explorer Workshops! 12th or 14th July 2022 1-4pm.

A workshop for STEM Teachers providing free kit for the classroom and/or STEM Clubs.

Learn about Photonics! the science and technology of light – essential to our daily lives. Photonics underpins the internet, smart phones, laptops, medical diagnostic and treatment technologies, manufacturing, and lighting – and more. This free, 3 hour-long on-line teacher's workshop will use the **Photonics Explorer** kit – each teacher/school that attends will be sent a free kit worth £150 (limited to one kit per school).

Learning Objectives:

By the end of the workshop teachers will:

- Know more about the science and technology of Photonics and how it is important to our daily lives
- Be able to use the Photonics Explorer kit to teach relevant topics in the National Curriculum to their students to different Year Groups at different Key Stages.
- Know more about the research in Photonics

The Photonics Explorer Kit:

Each kit contains a classroom set of the following components suitable for up to 30 students working in small groups of 2 to 3: Eye-safe Lasers; coloured LEDs; polarisers (7x5 cm); optical fibre and slits for optical diffraction experiments. The kit contains 8 educational modules provided on a data stick with Notes for Teachers, and Fact Sheets and Worksheets for students – all of which can be edited/adapted. Some modules also feature videos to support the suggested lessons plans. (For more about the kits please go to the site: <http://www.b-photonics.eu/en/photonics-explorer>).

The modules are designed to teach:

- Properties of light and its use in telecommunications
- Colour: perception, additive and subtractive colour mixing
- Lenses and telescopes
- Eye and vision
- Diffraction and Interference
- Polarisation
- A scientist's job.

For an initial expression of interest please contact: Dr Pearl John, Public Engagement Leader, Physics and Astronomy, University of Southampton: pj@soton.ac.uk

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