How to Holograms

OUTREACH PROGRAM

TMOS is the Australian Research Council Centre of Excellence for Transformative Meta-Optical Systems. We generate, manipulate and detect light using meta-optics, a new technology that replaces conventional lenses with nano-surfaces.

Our Outreach program has been designed to entertain and engage young Australians, encouraging them to be future leaders and innovators in STEM careers. We will introduce our audiences to the science behind the optics and help them understand the new industrial revolution - Industry 4.0

Topics covered:

Holograms - how and where they are used in every day life.
Learn about the fascinating light concepts behind the formation of holograms, including reflection, refraction, diffraction and interference!

Hands on Demonstrations!

- Use a laser pointer to visualise the light principles of reflection, refraction and diffraction
- See hologram printing in action!
- Take home your own diffraction glasses!

Contact us at
connect@tmos.org.au

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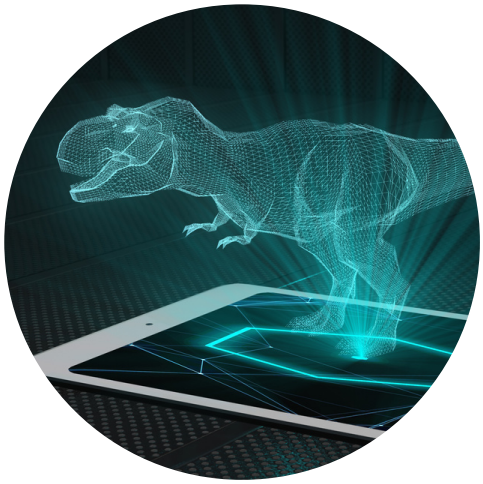
TMOS

Year 5 Content Descriptions

Science Understanding

- Labelled ray diagrams
- Classification of materials as transparent, opaque or translucent
- Recognising colour of objects depends on their properties and the colour of the light source
- Using mirrors to demonstrate reflection of light
- Recognising refraction of light at surfaces of transparent materials



Science as a Human Endeavour

- Understanding the behaviour of light by making observations of its effects
- Exploring reflection, absorption and refraction of light using mirrors, sunglasses and prisms

Science Inquiry Skills

- Applying experience to predict what may happen in a new situation
- Identifying similarities and differences in qualitative data to group items or materials

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