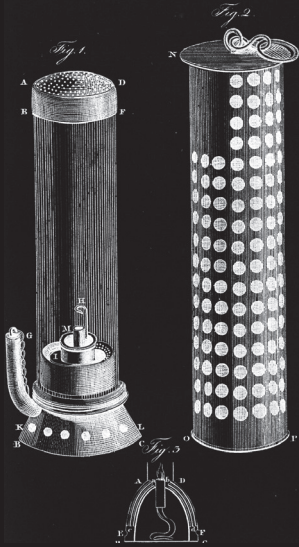


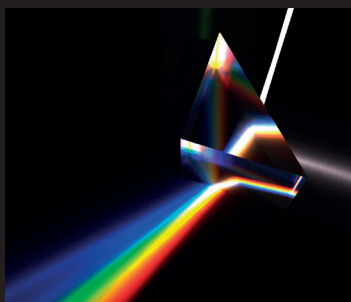
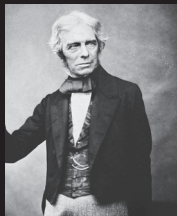
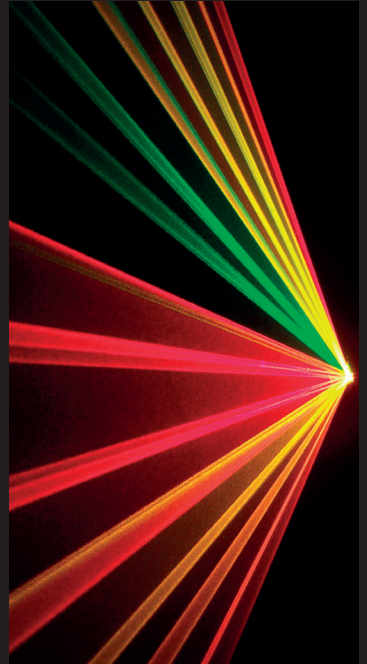
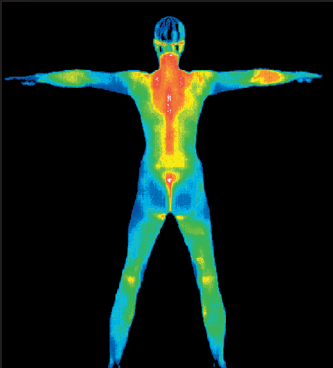
Celebrating GEORGE STEPHENSON

FAMILY OPEN DAY

SATURDAY 5TH DECEMBER



GEORGE STEPHENSON DEMONSTRATED HIS LAMP TO THE LIT & PHIL SOCIETY ON 5TH DECEMBER 1815. TODAY WE CELEBRATE HIS ACHIEVEMENT WITH A VARIETY OF EVENTS, DEMONSTRATIONS, TALKS AND LIVING HISTORY. IF YOU'RE NOT QUITE SURE WHAT GEORGE STEPHENSON DID, PLEASE COME AND FIND OUT.



THE Lit & Phil

GEORGE STEPHENSON came from a mining family and by 1804 he was employed at Killingworth Colliery as the brakesman. He was present when explosions in the pit killed 10 miners in 1806 and 12 in 1809. But it was the Felling Pit disaster of 1812 that gave Stephenson the impetus to solve the problem.

200 years after he unveiled his world-beating lamp for miners, Newcastle's very own celebrity engineer George Stephenson is back! Join George and other local characters whose lives he changed for a day of living history, demonstrations, and the occasional small fire.

All events and tours are **FREE** but to reserve a place please call 0191 232 0192 or email library@litandphil.org.uk

The Lit & Phil
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Free Events

LIBRARY OPEN 9.30AM-4PM
MEMBERSHIP SPECIAL OFFER!

10am, 11.30am, 2.30pm. 3.30pm -

Richard Ellam is a science history expert and here presents "How to invent a safety lamp" – a 20 minute show packed with experiments and advice to budding engineers and inventors. Between these shows, Think Physics will be conducting experiments. Organised jointly by Think Physics and the Centre for Life, these events are suitable for all the family. Drop in for an hour and take in the show, the sights, the history, and hopefully not too much of the smoke.

12.30pm-2pm

Join the astrophysicists from Newcastle University's School of Mathematics and Statistics for some hands-on light activities. See the invisible signature of the heat from our surroundings with an infra-red camera. Work out why different types of lens alter the passage of a beam of light. How do astronomers make use of all these properties of light to learn more about our Universe?

1pm

FREE Tour of the Lit & Phil.

10.45am and 2pm
National Trust

Tucked away in Wylam is George Stephenson's Birthplace. Hear about the early years of George's life, looking at the small cottage along the Waggonway and how he and his family would have lived.

6.00pm Science and Mining in the North East: George Stephenson, Humphry Davy and Michael Faraday, with **Frank A.J.L. James**, MAE, Professor of the History of Science.

This talk will compare the 'engineering' solution pursued by Stephenson and the 'scientific' followed by Davy, assisted by Faraday. The simultaneity of these discoveries provoked a ferocious controversy. The arguments were informed by the merits and chronologies of development, and also by business, class, political and regional rivalries.

Throughout the day The Institute of Physics will be offering their International Year of Light activities - come and split light, blend colours, experiment with lasers, and see the science behind fluorescence.

