

## Inspire Engineering Day Guide for Teachers

### Aims of Inspire:

Inspire Engineering is designed to engage, inform and inspire pupils about engineering, particularly transport engineering, with the aim to encourage young people to think about an engineering related career. To achieve this, the study day aims to:

- Develop pupils' understanding of what engineering is;
- Further enhance pupils' team-working, problem solving, communication and research skills;
- Motivate pupils to further study STEM subjects;
- Give pupils an insight into careers in engineering at TfL and routes into them.

### Structure of the Day:

A chance to see behind the scenes! The day is designed for two classes. Each class works through a programme of activities facilitated by members of London Transport Museum staff. The day begins with an interactive introduction session followed by:

- *Eggsperiment*. In teams, pupils design, build and test a train track to transport an egg.
- *Careers activity*. Pupils interview Engineering Ambassadors who work for TfL.
- *Depot exploration*. This session will be led by a member of staff from your school. We will provide resources to help you and your pupils explore the depot and find out more about engineering from our amazing objects.

### Timings and Arrival:

Please arrive to the London Transport Museum—Acton Depot for 10:30. Please refer to the LTM Acton Depot map for detailed directions and transport information. Lunch break will be from 12:25-13:00 and the day will conclude at 14:45.

### CREST Award:

If you have booked the CREST Award Inspire Engineering Day, students will achieve a CREST Discovery Award at the end of the study day. The cost for the award is £3 per pupil and will be paid upon booking. Two weeks before your visit, the school must submit the names of attending pupils on the CREST Award spreadsheet attached to the booking confirmation email to [InspireEngineering@ltmseum.co.uk](mailto:InspireEngineering@ltmseum.co.uk). On the day, the spreadsheet will be printed for attending staff to make any changes to pupils in attendance. Please note: we are unable to refund the cost for pupils who are not able to attend (see our cancellation policy for more information). Please allow up to two weeks after your visit for the CREST Award certificate to be sent to the school.

### Preparation:

For the Eggsperiment activity, prior knowledge of the following will help your pupils: **kinetic energy, potential energy, gravity**; and, if possible: **energy transfer, conservation of energy**. It would also be helpful to discuss “what is engineering?” with pupils. During study day we define engineering as problem solving. For more information about engineering as a career, please visit Tomorrow's Engineering website (<http://www.tomorrowsengineers.org.uk>).

During the day, pupils work in 6 teams - you may wish to assign groups in advance.

On the day:

- The Acton Depot is a working depot where most of the Museum's objects are stored. Objects are not displayed and interpreted as in the museum, and the depot is closed to the public.
- Due to the nature of the space and activities, we require a minimum of 1:10 adult to pupil ratio.
- School staff are expected to participate in all activities throughout the day. One activity will be led by school staff using resources we will provide.
- All school staff and accompanying adults should ensure pupils engage in the activities and behave safely throughout the day including lunch break.
- Pupils are encouraged to bring cameras.
- Pupils must bring packed lunches; there is no café or vending machines.
- The gift shop will be closed.