



**Bridges  
to Schools**

## **Institution of Civil Engineers North East**

A fantastic hands-on bridge building activity where young people experience civil engineering first hand

# **ICE North East Bridges to Schools**



The Institution of Civil Engineers in the North East invites you to a fun learning activity for students aged 9 -16

### What is it all about?

ICE North East will bring a 15m cable stayed bridge kit to your school introducing students to civil engineering through a fun and interactive activity.

### What are the educational benefits of Bridges to Schools?

The activity will be fully facilitated and provides the following learning outcomes:

- Understanding of the civil engineering profession
- The opportunity to use simple construction methods
- Awareness of health and safety
- Developing personal learning and thinking skills e.g. teamwork and creativity
- Increased confidence and self esteem
- Use of logic and problem solving skills
- Learn basic principles of forces
- Professional development for teachers

### How many students can take part?

ICE recommends a minimum of 12 students and maximum of 20 students per session.

### The activity supports the curriculum in the following ways:

#### Primary

- The world around us: interdependence, change over time, place, movement and energy
- Mathematics and numeracy: communicating mathematically, measures
- Language and literacy: talking and listening
- The arts: three dimensional construction

#### Secondary

- Science: understanding forces
- Technology: practising design principles and understanding materials
- Engineering: awareness of engineering processes
- Maths: application of maths in work related context.

### How long does the activity take?

A session takes approximately 90 minutes. More than one session can be conducted per school visit.

### What type of venue is required for the activity?

The venue needs to be big – a minimum of 19m long with 3m of uninterrupted headroom and a flat floor surface. Vehicle access is needed as close as possible.

### What equipment is required?

All equipment will be provided by the Institution of Civil Engineers, including protective clothing.

### How much does the activity cost?

Currently this activity is free of charge.

*"All the children benefitted from a valuable educational experience, and I hope that they have gained a fuller understanding of Civil Engineering whilst working together on a spectacular construction project."*

Mr Tim Manning, Headmaster, Longridge Towers School, Berwick



If you would like to know more about this exciting resource, or to schedule a date in the future, please contact us:

Institution of Civil Engineers North East  
Room 2.08 Drummond Building, School of Civil Engineering and Geosciences  
Newcastle University, Claremont Road, Newcastle upon Tyne, NE1 7RU

**t:** +44 (0)191 261 18

**e:** [rec-northeast@ice.org.uk](mailto:rec-northeast@ice.org.uk)

**w:** [www.ice.org.uk/northeast](http://www.ice.org.uk/northeast)



follow us on twitter  
[@ICE\\_NE](https://twitter.com/ICE_NE)



find us on facebook  
'Institution of Civil  
Engineers'



watch our videos at  
[www.youtube.com/user/  
civilengineeringtv](http://www.youtube.com/user/civilengineeringtv)

[www.ice.org.uk/northeast](http://www.ice.org.uk/northeast)