

# SCIENCE AT WORK

A chance to meet **Jyoti Sehdev** - a civil engineer  
and **Ailsa Roberts** - a structural engineer

## JYOTI SEHDEV

Jyoti is a civil engineer who works for Costain, a project delivery company. A civil engineer designs and builds roads, railways, tunnels, airports, and systems for water and sewage: all the things we need to support our towns and cities to work. Jyoti has worked on the construction of London Bridge Station. She is currently working on the High Speed 2 Rail Project, which will provide fast train connections between 8 of Britain's cities. This involves managing the demolition of old buildings to make way for a new station in London. It is Jyoti's job to make sure that the works are constructed correctly, that everyone works safely and to protect the environment at the same time. Developing rail networks means that fewer people will use cars and there will be less air and noise pollution.



[Click here](#) to find out more about different types of engineering  
[Click here](#) to have a go at Spaghetti Skyscrapers and other fun engineering activities

## AILSAS ROBERTS



Ailsa is a structural engineer who works for Expedition Engineering. A structural engineer designs the structures that support buildings and bridges. They have to work out the forces in the structure and they need to know about the strength of the building materials being used. Ailsa works with teams of architects and other types of engineers to have creative ideas to develop a structure that is efficient, sustainable and beautiful. Expedition Engineering has designed lots of buildings and bridges, including the London velodrome for the 2012 Olympics and the award-winning Infinity Bridge in Stockton. Ailsa is currently working on three projects: a new university in Milton Keynes, one of the High Speed 2 railway stations and a research lab made out of bamboo! She has also worked with Jyoti on site at London Bridge Station, where she helped build the new concrete platforms.

Play some engineering games on [Expedition's Workshed](#)

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**CLICK HERE** to download **PICTURES** and **INFORMATION**  
about some of Ailsa and Jyoti's projects

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## WHAT TO DO

### 1 FIND OUT ABOUT JYOTI AND AILSA

On the other page, you will find some information and ideas to get you thinking. What else would you like to know? What questions could you ask them?

Write your questions here .....

### 2 DRAW A PICTURE

You could draw a building or bridge that Jyoti or Ailsa worked on? Or how about a favourite one of your own?

### 3 SEND IN A QUESTION AND YOUR DRAWING

- \* Choose your **favourite** questions that you would like to ask Jyoti and Ailsa.
- \* Ask an adult to **complete the form** online with your first name, city or region where you live, and your question for Jyoti or Ailsa. You need to do this by **3pm on 4<sup>th</sup> June**.
- \* If you have drawn a picture, please send this in as well! You can take a photo of it and upload it with the form.

### 4 WATCH THE VIDEO NEXT WEEK

- \* The video of Jyoti and Ailsa will be available to watch from 11.00 on Tuesday 9<sup>th</sup> June.
- \* Ask an adult to **find the video** for you.
- \* You might see your picture, or hear your question being answered!

[CLICK HERE TO SEND IN YOUR QUESTION AND DRAWING](#)

[CLICK HERE TO WATCH THE VIDEO \(FROM 9<sup>TH</sup> JUNE\)](#)