



# Children Challenging Industry

CCI 2018-2019

## Children Challenging Industry CCI 2018-2019

Since CCI began in 1996 around 50,000 pupils have experienced CCI, involving over 1000 site or ambassador visits from more than 140 companies.

**31**   
schools

**989**   
pupils

**10**   
companies

Involved in  
2018-2019

**27**   
site visits

**355**   
teachers

**10**   
ambassador visits

*'Both the children and I have learned so much from the CCI programme. As well as learning about industry, it really has opened my eyes about creative ways I can teach investigative science. During and since the project, I have found so many links between the themes we discussed in the CCI programme and other areas of the curriculum and it really has helped make these links more relevant to the children. Thank you so much for involving us.'*

**CCI PARTICIPATING TEACHER**



**Our Focus on Teachers can be found on page 5**

*'It was really fun and if I could do it again I would. I also told my little brother if he ever got to do the lessons I did he would love it to, and he would hopefully have as much of an enjoyable experience as I did.'*

**YEAR 6 GIRL**

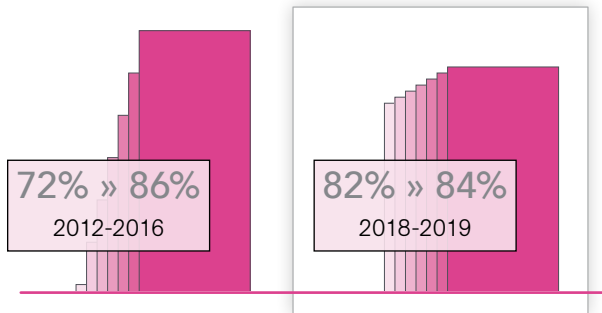


**See page 3 for more on CCI and Science capital**

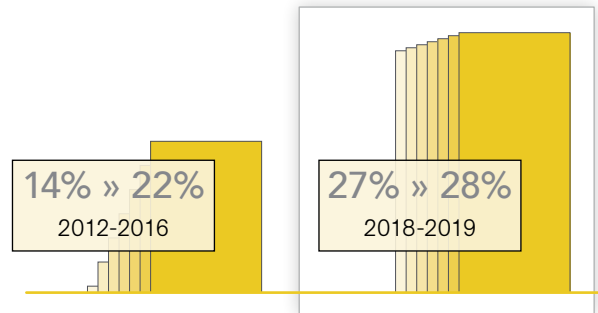


## Children responses before and after taking part in CCI activities

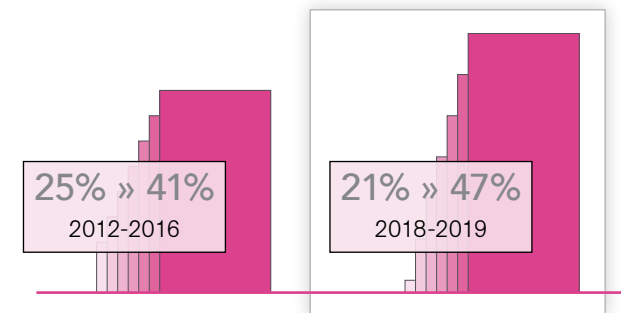
I like science



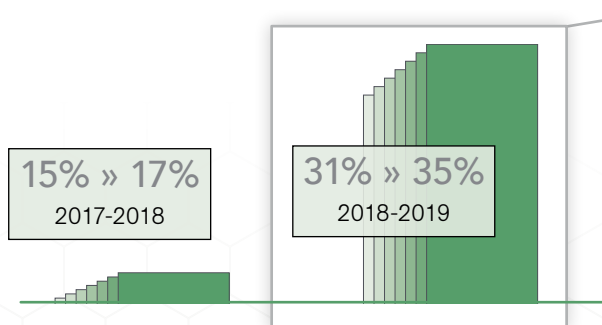
I would like to be a scientist



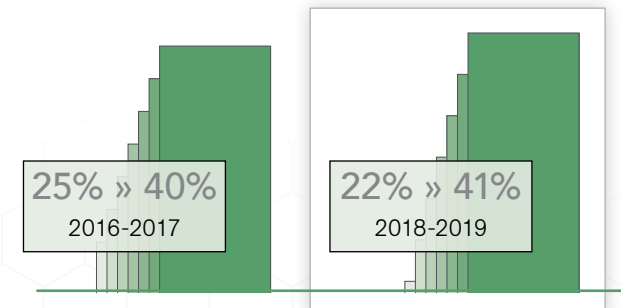
Young people work in industry



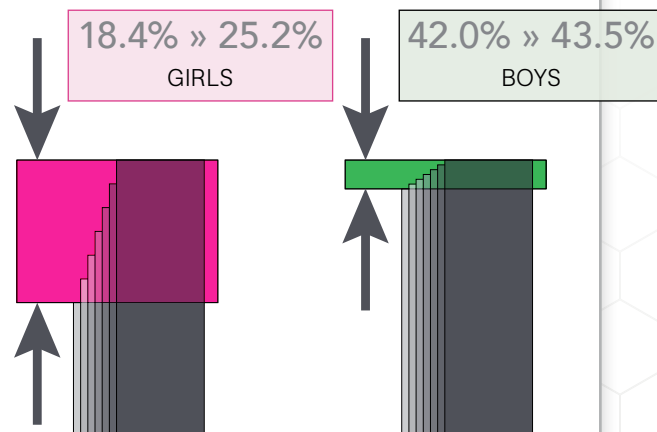
I would like to be an engineer



I could work in industry  
in the future



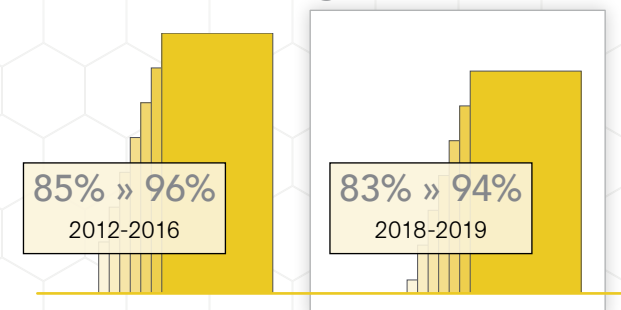
I would like to be an engineer  
GENDER BREAKDOWN OF RESULTS



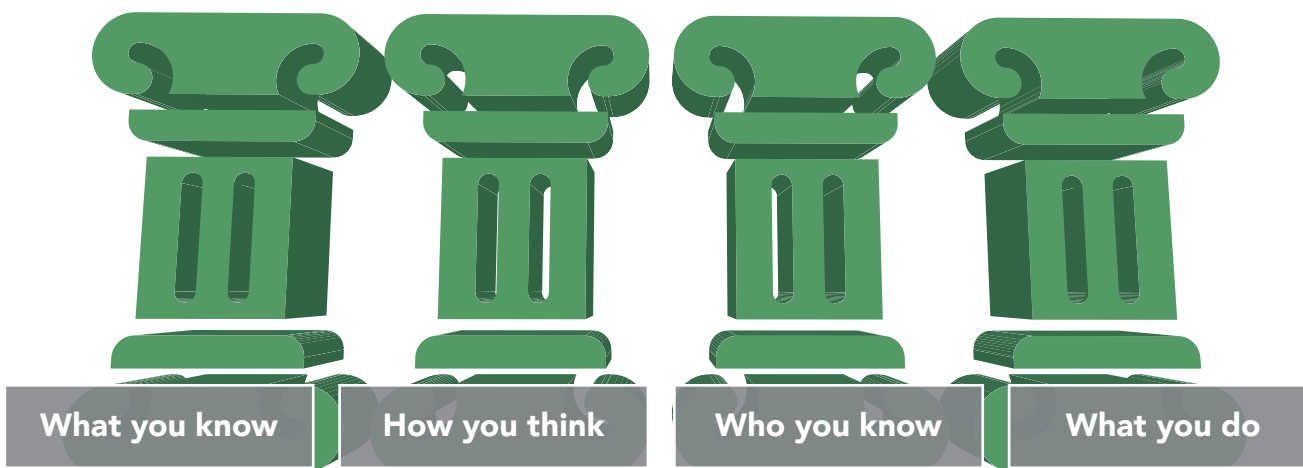
*'Girls and Boys both can be whatever they want if it's an engineer [or] a scientist.'*

YEAR 5 GIRL

There are women scientists  
and engineers

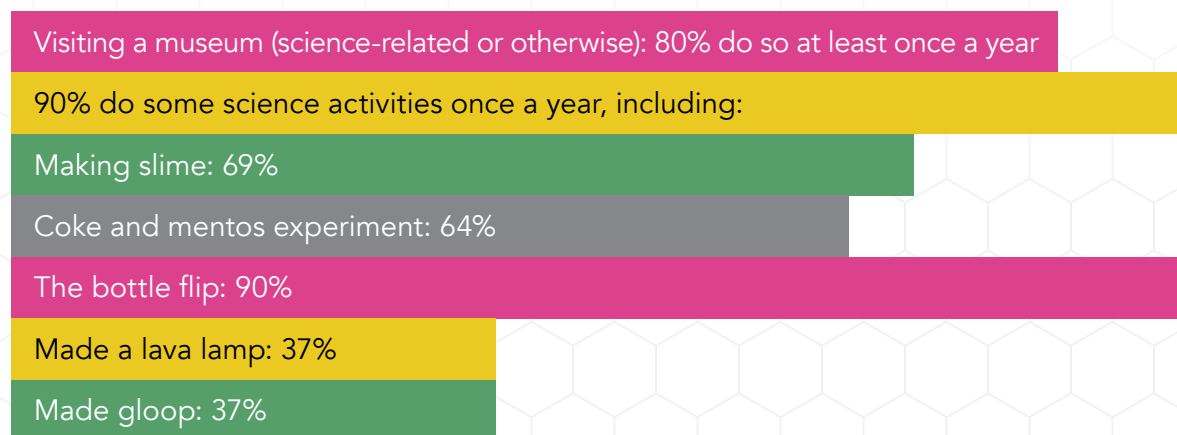


# Science capital



**'what you know'** refers to your science knowledge and understanding, **'how you think'** to your views about science, **'who you know'** to people who are interested and talk about science with you and motivate you in science, and **'what you do'** to the science related things you do in your spare time. (Terminology agreed in discussion with Professor Louise Archer, Institution of Education, whose research on science capital has led this field in recent years.)

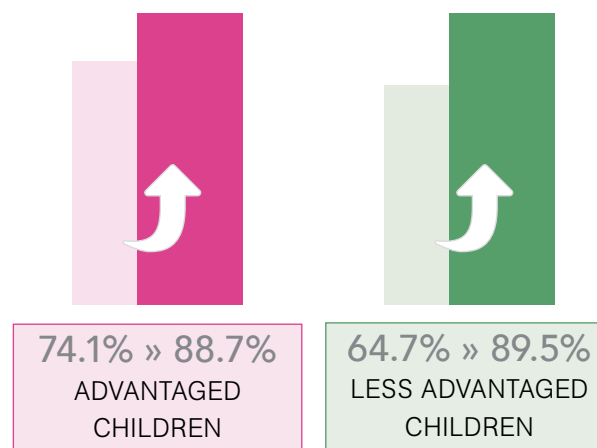
## What you know and what you do



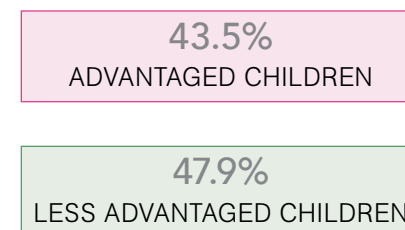
## Combating disadvantage

CCI specifically impacts disadvantaged children, using Free School Meals as an indicator for above or below national average.

Scientists have important jobs in industry:



Science is my favourite subject:



## What did your family say about your science learning?

*'I like doing experiments in science, they are really enjoyable, and you can do them as a family.'*

**YEAR 6 GIRL**

*'My parents said they were glad that I liked my experience and my brother said he would like to do the same lessons and trips I have.'*

**YEAR 6 GIRL**

*'They had said that they were proud of me because of all the stuff I learned.'*

**YEAR 5 BOY**

*'I was lucky and maybe I could be a scientist when I grew up.'*

**YEAR 5 GIRL**

### THE PEOPLE THAT HELP YOU KNOW IT – AMBASSADORS

## What did you tell your family about the people you met on the visit?

*'I said she was very clever, kind and helpful.'*

**YEAR 6 GIRL**

*'How intelligent he was and how helpful he was.'*

**YEAR 6 BOY**

### THE PEOPLE THAT HELP YOU KNOW IT – PARENTS

My parents think science is interesting:

**64.2%**

(24% agree a lot, 40.2% agree a little)



My parents will be happy if I become a scientist:

**56.2%**

(35.6% agree a lot, 20.6% agree a little)



My parents think it is important for me to learn science:

**71.0%**

(44.6% agree a lot, 26.4% agree a little)



## What did they say?

**Talking about science learning in school**  
73.2% talk to female parent, 56.1% talk to male parent.



*'They said they would want to learn about what we learnt.'*

**YEAR 6 BOY**

*'They talked a bit about what I had said and then stated some other things that I might not have known.'*

**YEAR 6 GIRL**

*'It sounded like we had a good time, what materials did we use [for the experiment], and did it work.'*

**YEAR 5 GIRL**

*'They said that was really cool and my dad told me about his past job as engineer in a chemical factory.'*

**YEAR 6 GIRL**

# Focus on teachers

**100%** of teachers think CCI is excellent or good, none think it is less than good



## Strengths of the CCI programme

### ● Practical science activities

Proportion of teachers rating this strength

**100%**

### ● Expert knowledge of science

Proportion of teachers rating this strength

**84%**

### ● Children's investigative skills

Proportion of teachers rating this strength

**84%**

### ● Industrial context

Proportion of teachers rating this strength

**74%**

### ● Career aspirations

Proportion of teachers rating this strength

**63%**

*'My approach to investigative science has changed completely. The lesson I delivered really showed me how opportunities could be given for more discussion about results and opportunities to re-test. Something that I have found difficult to include in the past.'*

*'Following this programme, I am far more confident in teaching the Electricity unit of work as I had not taught it previously.'*

*'It's inspired me to make greater efforts to connect their science learning with real-life science.'*



**To learn more or find out how  
you can become involved please:**

Visit our website:  
**[www.ciec.org.uk](http://www.ciec.org.uk)**

Call us on **01904 322523**

Email: **[ciec@york.ac.uk](mailto:ciec@york.ac.uk)**

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