How ‘sciencey’ are you?

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How ‘sciencey’ am I?

- Very!
- As a child:
  - I used to think about science in the bath
  - I had great science teachers
  - I had a chemistry set, LEGO, Meccano and a microscope
  - I always wanted to be a vet
  - My father played golf and snooker with me
How ‘sciencey’ am I?

As an adult:

• I was a post-doc biochemist
• I work at the Science Museum
• I read and watch science media for fun
• I try to cook like Heston Blumenthal!
• I love jigsaws and Sudoku
• I own a steam cleaner
• I use science to solve life’s little problems!
How ‘sciencey’ are you?

• What STEM-related qualifications or skills/knowledge do you have?

• What 3 words would you use to describe your feelings about STEM?

• What STEM-related activities/experiences do you do outside of work?

• Who do you know who uses STEM in their life/work?
How ‘sciencey’ are you?

• What STEM-related qualifications or skills/knowledge do you have?
• What 3 words would you use to describe your feelings about STEM?
• What STEM-related activities/experiences do you do outside of work?
• Who do you know who uses STEM in their life/work?

• Score yourself out of 5 for each question

Let $f_{SC} = A(1) + A(2) + A(3) + A(4)$

• $x \geq 16 = \text{high science capital}$
• $x \leq 8 = \text{low science capital}$
• $8 < x < 16 = \text{medium}$
Science Capital

In a sample of 3000+ 11-15yr olds:

• 5% had high science capital
• 27% had low science capital
• 68% had medium science capital
• The more science capital you have, the more likely you are to engage with science in the future
• Science Capital is a lens for understanding how people engage with science
Why science?

- Engagement in science improves life opportunities
- Many young people see science as abstract
  - little real life application
  - suited only to bright students
- They don’t recognise the value it has to their lives or how it can help them with their future aspirations or ambitions.
Science Capital helps us to …

• … understand what influences and shapes people’s attitudes towards science
• … consider all of the
  • science related knowledge
  • social contacts
  • attitudes
  • skills
  • experiences.
However ...

- We cannot solve the problem alone
- We are part of the science engagement landscape along with schools, universities, Government, STEM organisations etc
- Only by working together we can affect change
Why is Science Capital useful?

- Understanding visitors’ engagement with STEM
- Help us shape our engagement experiences
- Identify successes
- Improve engagement with non-visitors
Why is Science Capital useful?

- Visitors are at the heart of our experiences
Why is Science Capital useful?

- Help us shape engagement experiences
Science Capital dimensions

1. Science literacy
2. Science related attitudes and values
3. Knowledge about the transferability of science
4. Consumption of science-related media
5. Participation in out of school learning activities
6. Knowing people in a science related job/role
7. Family science skills, knowledge and qualifications
8. Talking to others about science
In summary

- Higher science capital is associated with increased science engagement
- We all play a part in science engagement
- We all play a part in science capital
- The UK needs more STEM professionals
- One quarter of our young people currently have no engagement with science …
  … but could do!
Thank you