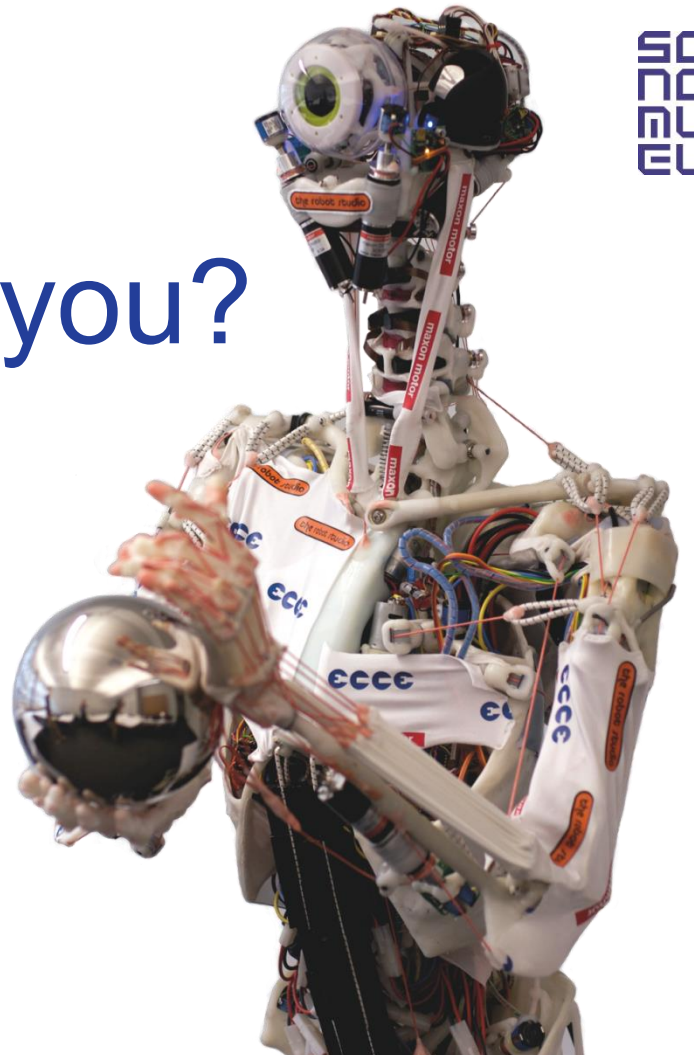


# How 'sciencey' are you?

Dr Kenny Webster

Head of Learning Operations

@kennywebster



# 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?

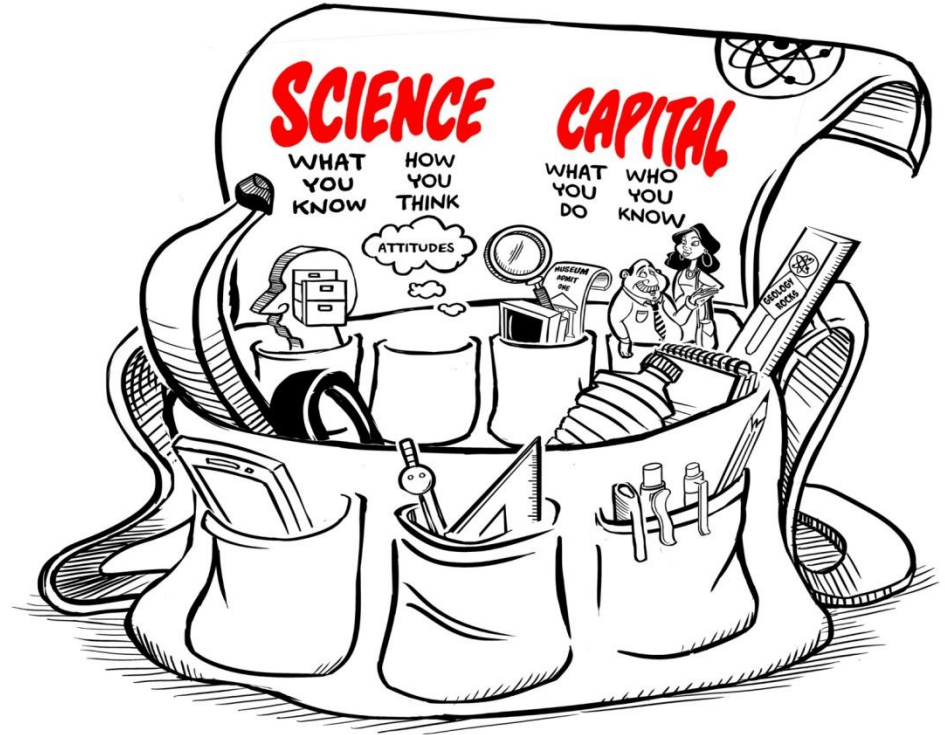
As an adult:

- 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

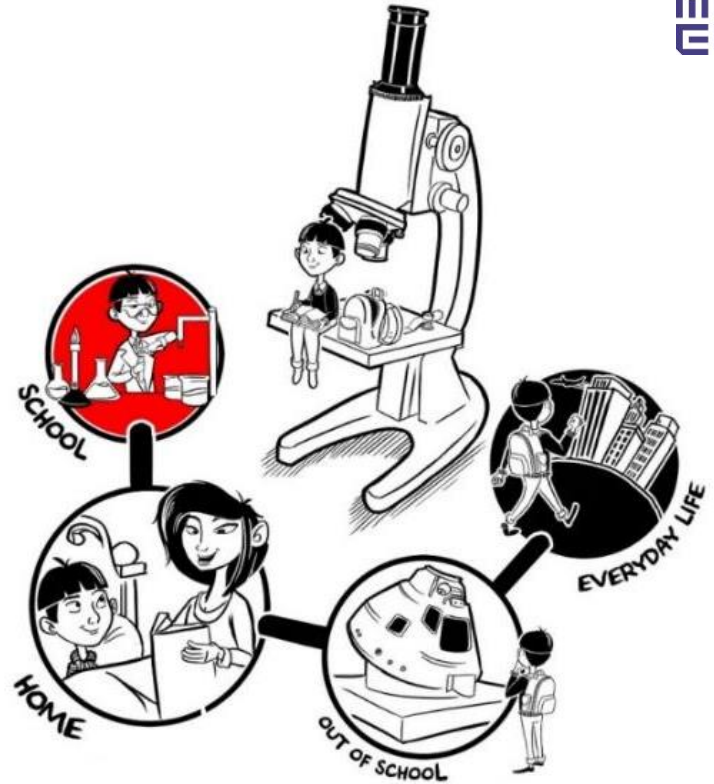
Let  $f(x) = A(1) + A(2) + A(3) + A(4)$

- $x \geq 16$  = high science capital
- $x \leq 8$  = low science capital
- $8 < x < 16$  = medium

# Science Capital

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

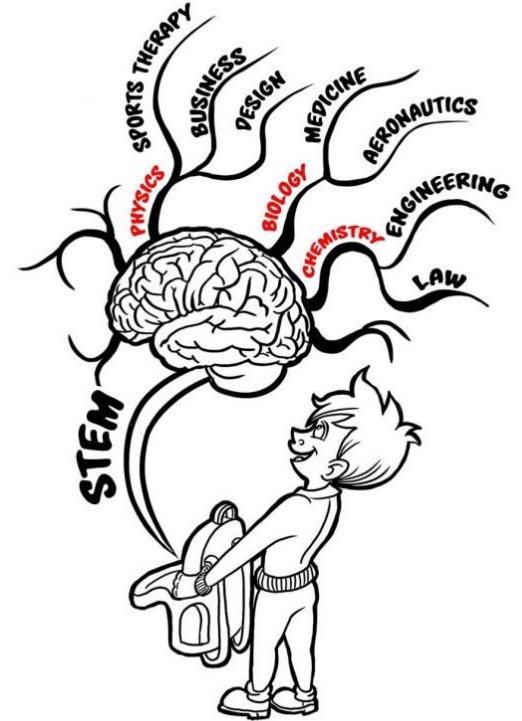
- 5% had high science capital
- 27% had low science capital
- 68% had medium science capital
- The more science capital you have, the more likely you are to engage with science in the future
- Science Capital is a lens for understanding how people engage with science



# Why science?

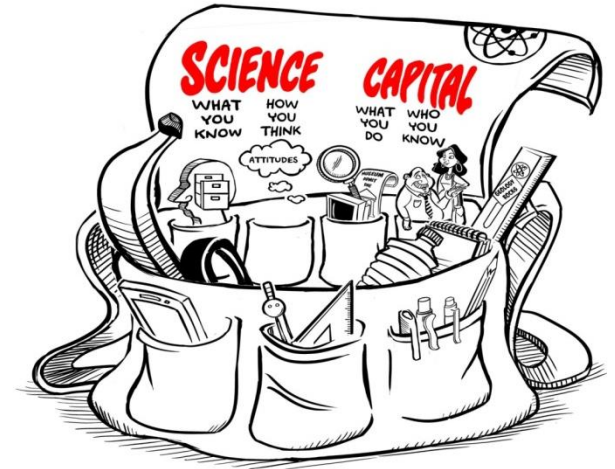


- Engagement in science improves life opportunities
- Many young people see science as abstract
  - little real life application
  - suited only to bright students
- They don't recognise the value it has to their lives or how it can help them with their future aspirations or ambitions.



# Science Capital helps us to ...

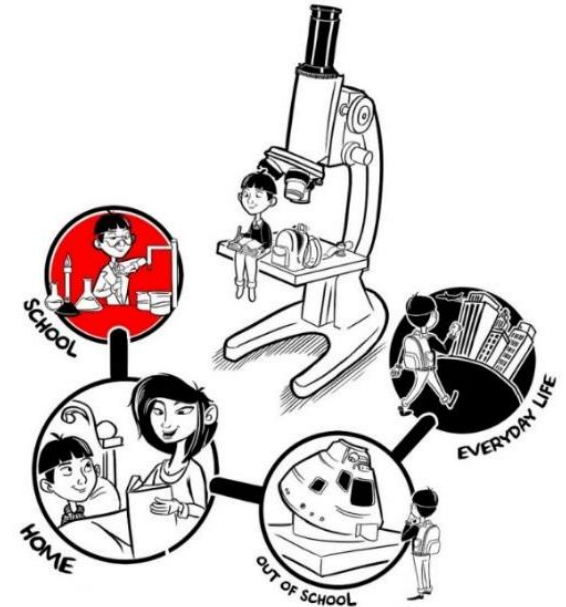
- ... understand what influences and shapes people's attitudes towards science
- ... consider all of the
  - science related knowledge
  - social contacts
  - attitudes
  - skills
  - experiences.





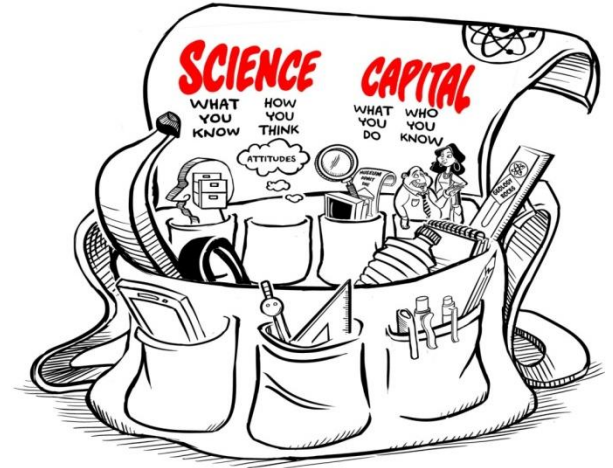
# However ...

- 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

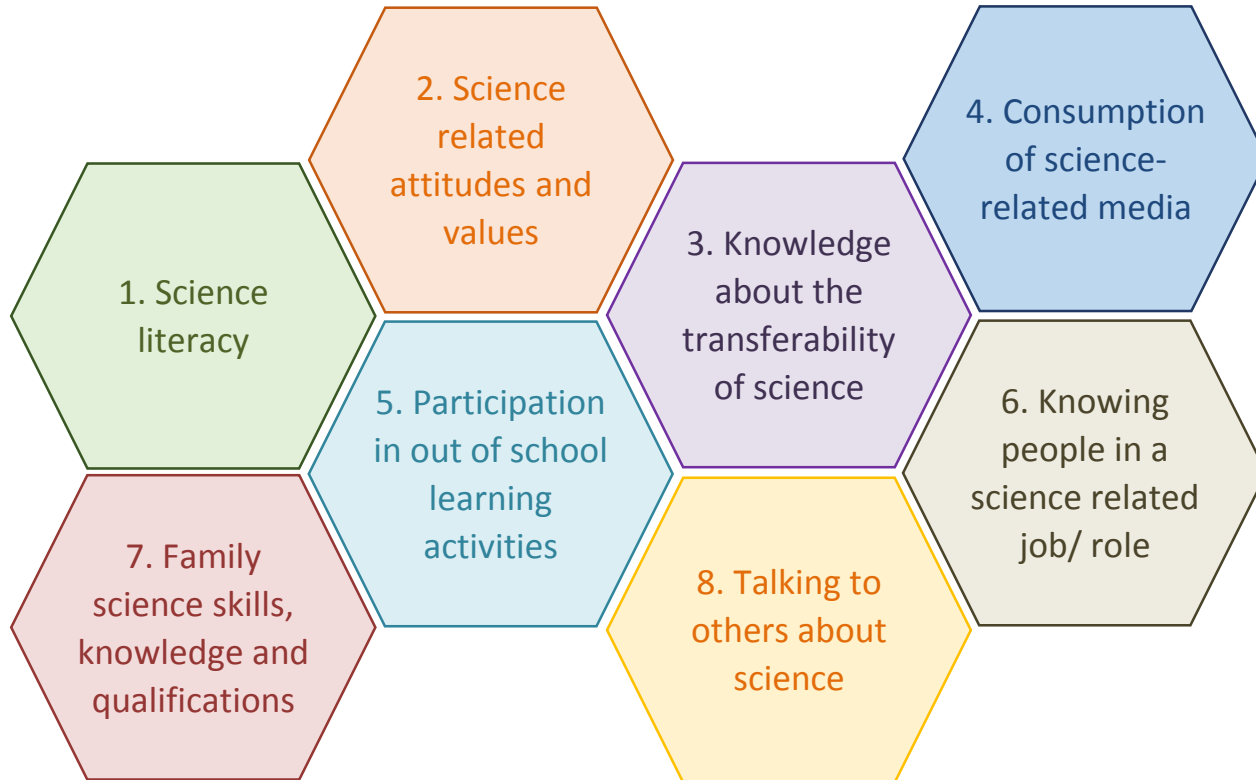


# Why is Science Capital useful?

- Help us shape engagement experiences

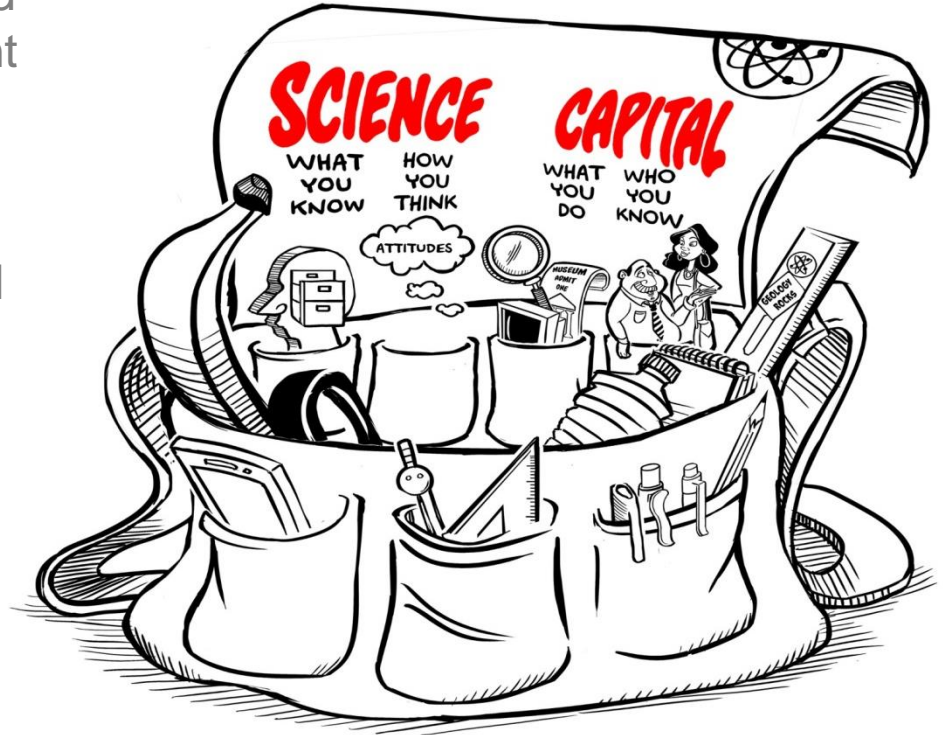


# Science Capital dimensions



# 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