

# Take a Social Justice Approach to Your Science Teaching

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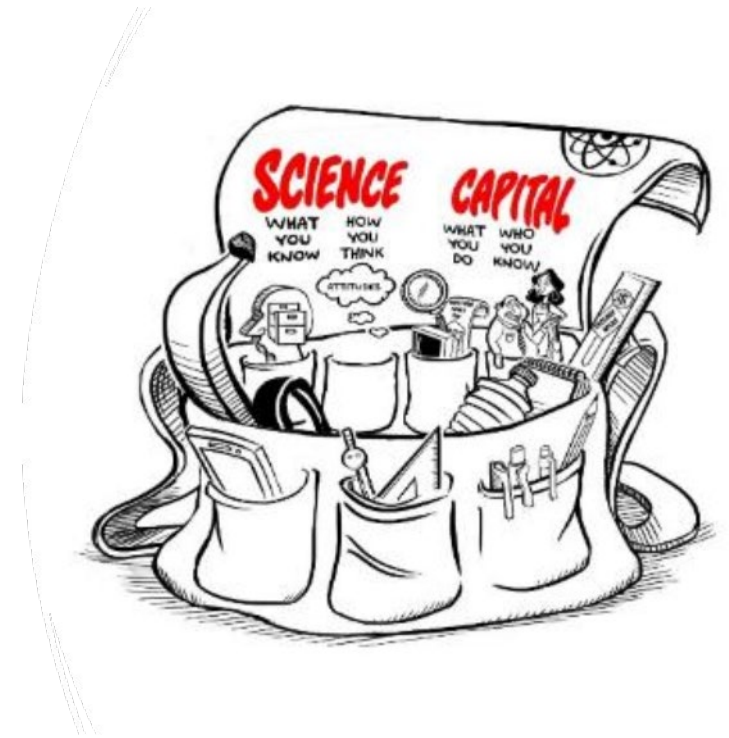
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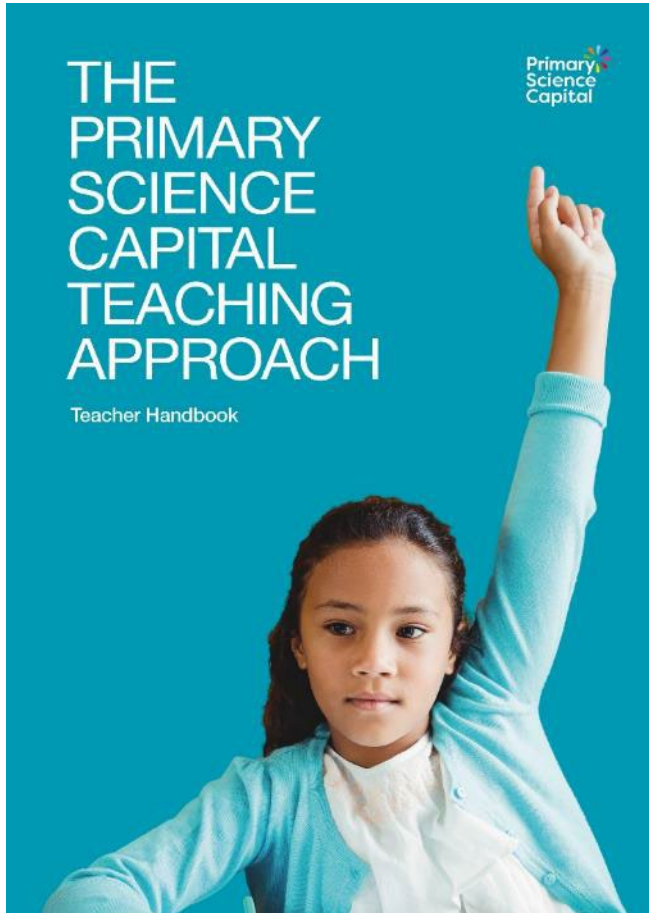
# This session will cover:

- Introduction to Science Capital
- Overview of the PSCTA model
- Starting with the child
- Personalising and localising
- Building science capital
- Summary & resources

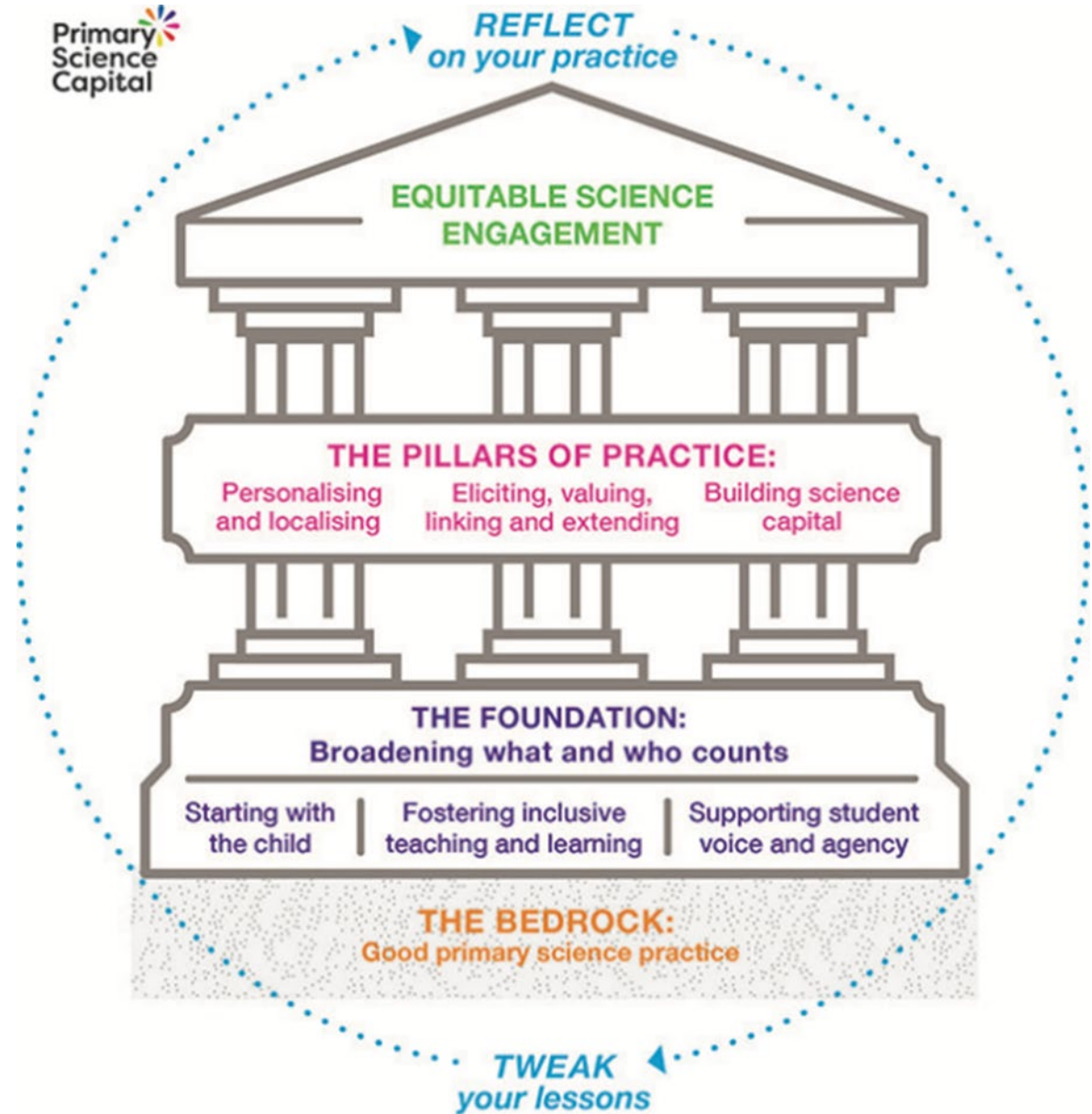
# Main areas of science capital

1. Science literacy (“what you know”)
2. Science-related attitudes and values (“how you think”)
3. Out of school science behaviours (“What you do”)
4. Science at home (“who you know”)



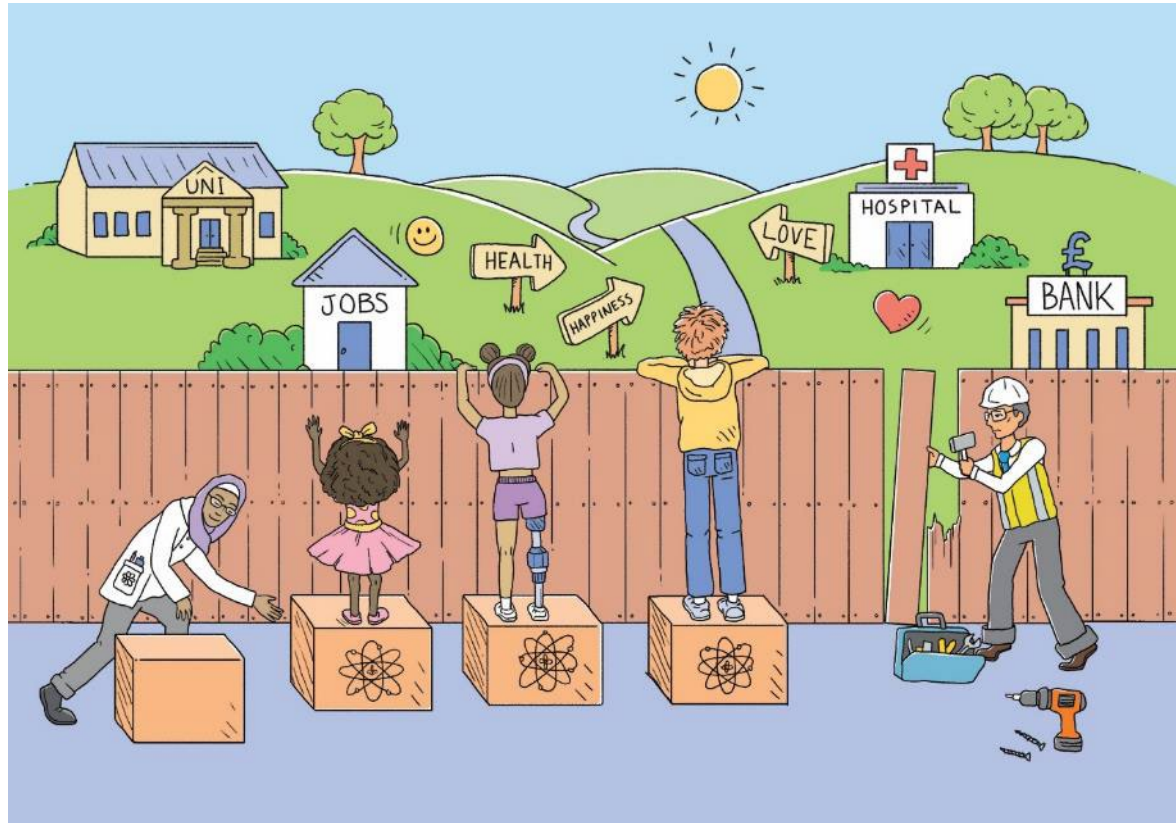


Primary  
Science  
Capital



Primary Science Capital Teaching Approach Model

# Equality, Equity or Social Justice?



## EQUALITY

“I treat everyone the same”



## EQUITY

“I differentiate and give more to those who need more/ are most disadvantaged”

# Equality, Equity or Social Justice?



## **SOCIAL JUSTICE**

“I try to change the things in my practice (and wider life) that create and maintain inequalities”

[UCL Home](#) » [IOE - Faculty of Education and Society](#) » [Departments and centres](#) » [Departments](#) » [Education, Practice and Society](#) » [STEM Participation & Social Justice Research](#) » [Primary Science Capital Project](#)

## Primary Science Capital Project

Developing a justice-oriented science teaching approach for primary schools.

### The Primary Science Capital Teaching Approach (PSCTA): Teacher Handbook

- [PSCTA teacher handbook \(PDF\)](#)
- [Interested in embedding the approach within your teacher education courses? Infographic \(PDF\)](#)



### Contact us

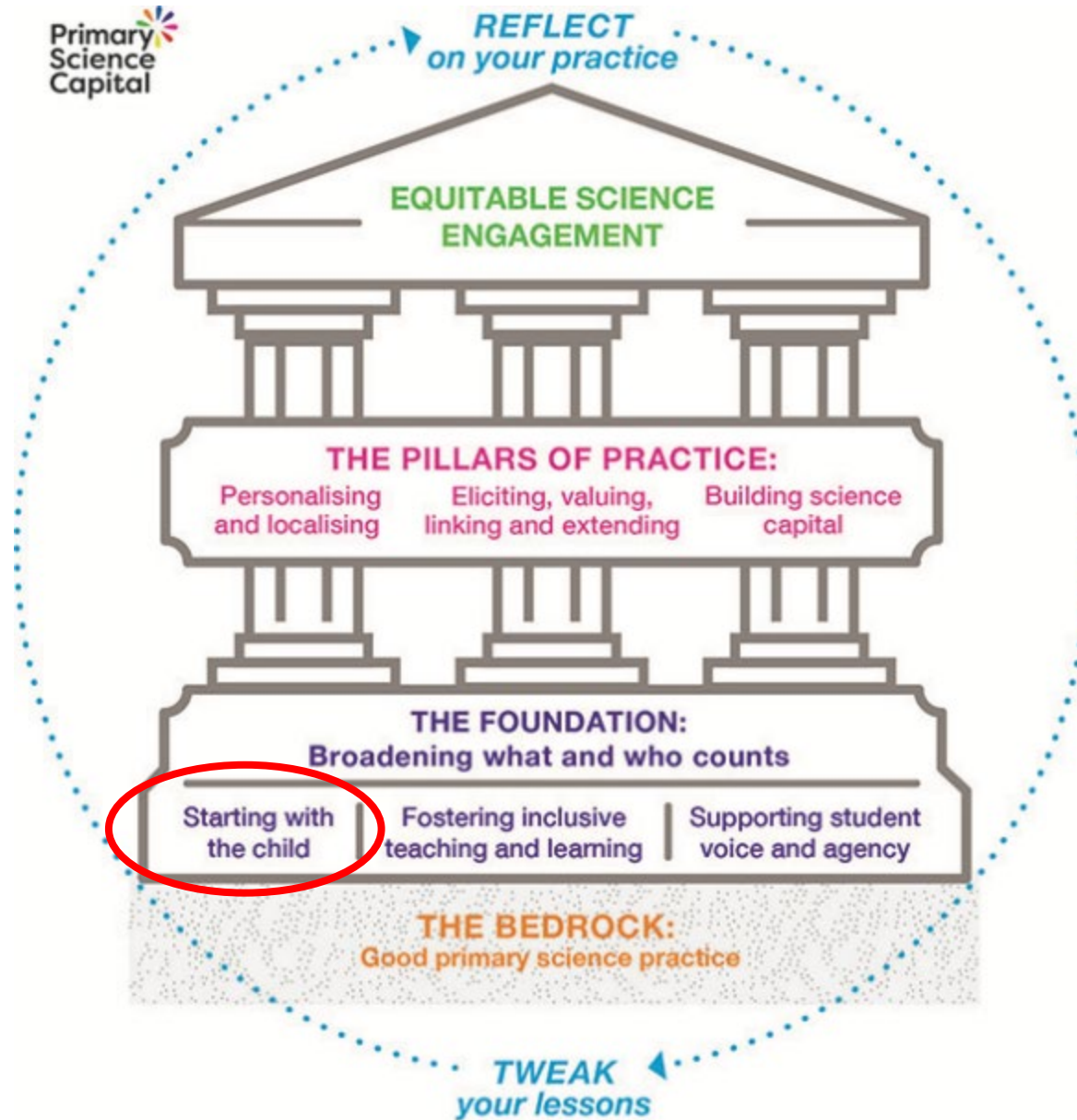
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IOE, UCL's Faculty of Education and Society  
University College London  
20 Bedford Way  
London WC1H 0AL

### Related links

- [Watch the project's launch event](#)

See also:

- [Science Capital Teaching Approach](#)



Primary Science Capital Teaching Approach Model



# Broadening what counts: starting with the child

Foundational activity which:

- Reinforces the **value** of **child-centred** teaching & learning
- Brings **child-centred learning** to the forefront of **thinking & planning**
- Focus on **how** children **experience** lesson content
- **Explicitly recognising** the **unique** contributions **each** student can make to the science class
- **Valuing and addressing** unique contributions through your teaching
- Plan lessons from the **perspective** of the child

# Know your class



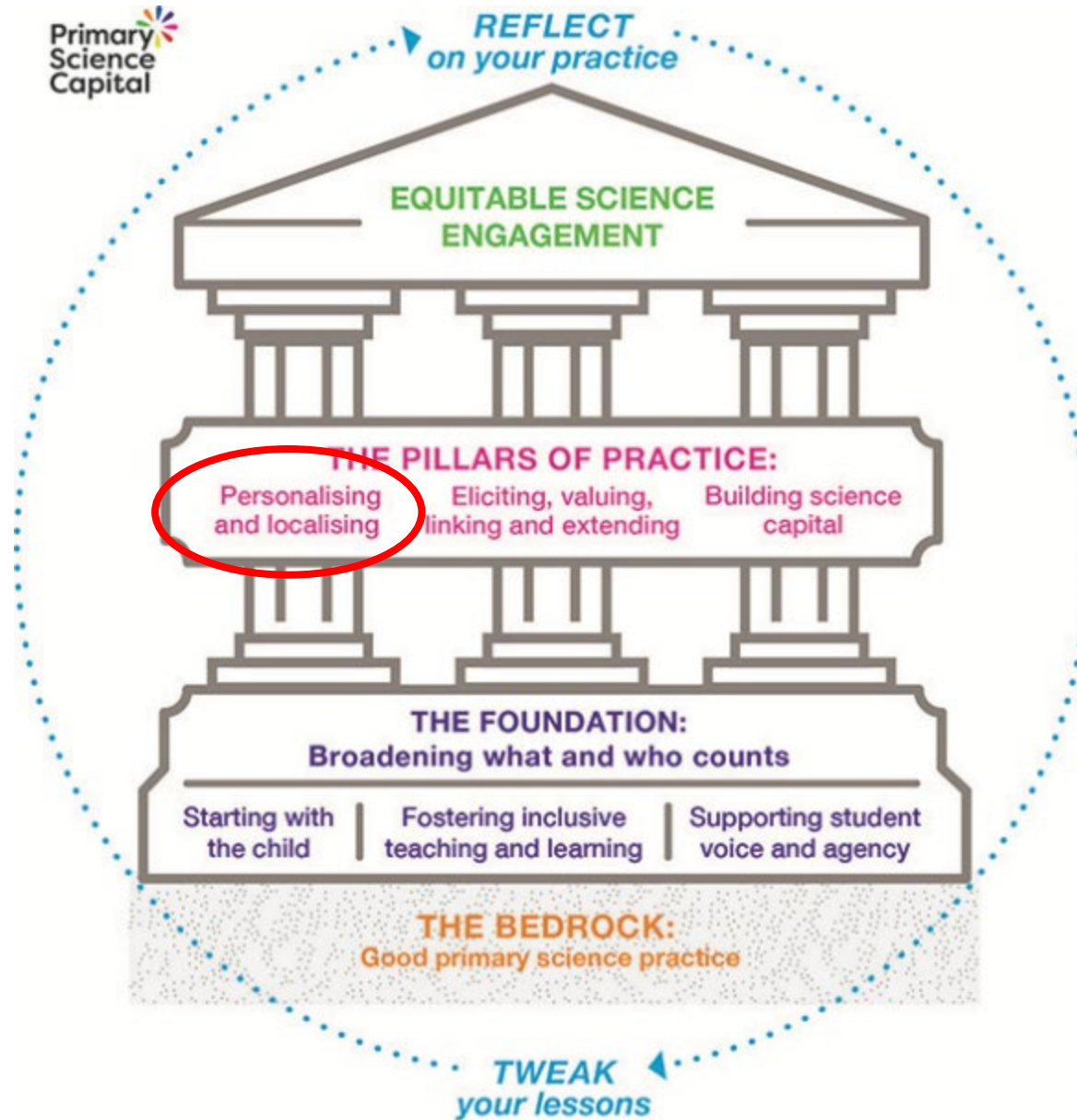
The screenshot shows the Explorify website interface. At the top, there is a navigation bar with the Explorify logo, a search bar, and links for Home, My dashboard, What's new?, and Teacher support. Below the navigation bar, there are filters for Year group (all), Science topic (all), and a "Have You Ever?" dropdown menu. The main content area displays a grid of activity cards, each with a "HAVE YOU EVER?" header and a question. The cards are:

- Warmed your hands by rubbing them?** Get your class talking with this question. Has it happened to them or their family and... Year 5 – 6, Forces.
- Tried to push a floating toy down under the water?** Get your class talking with this question. Has it happened to them or their family and... Year 5 – 6, Forces.
- Hit a ball with a bat?** Get your class talking with this question. Has it happened to them or their family and... Year 5 – 6, Forces.
- Seen lots of birds flying together across the sky?** Get your class talking with this question. Has it happened to them or their family and... Year 1 – 2, Year 3 – 4, Living things and their habitats, Seasonal changes.
- Seen a wind turbine?** Get your class talking with this question. Has it happened to them or their family and...
- Put something in the recycling bin?** Get your class talking with this question. Has it happened to them or their family and...
- Played in the autumn leaves?** Get your class talking with this question. Have they or their family and friends ever d...
- Not been able to find a battery when you need one?** Get your class talking with this question. Has it happened to them or their family and...

[www.nearpod.com](http://www.nearpod.com)

Join the lesson

**Code:**



Primary Science Capital Teaching Approach Model

# Pillars: personalising and localising

This pillar is about making science relevant to the everyday lives of the children in your class.

- Goes **beyond** contextualising
- How does science **relate** to their own **interests, identities, attitudes and experiences**
- Focus on real life examples that are **personal** and **local** to the children

# Which soil drains best?



# Personalising and localising

## Materials lesson

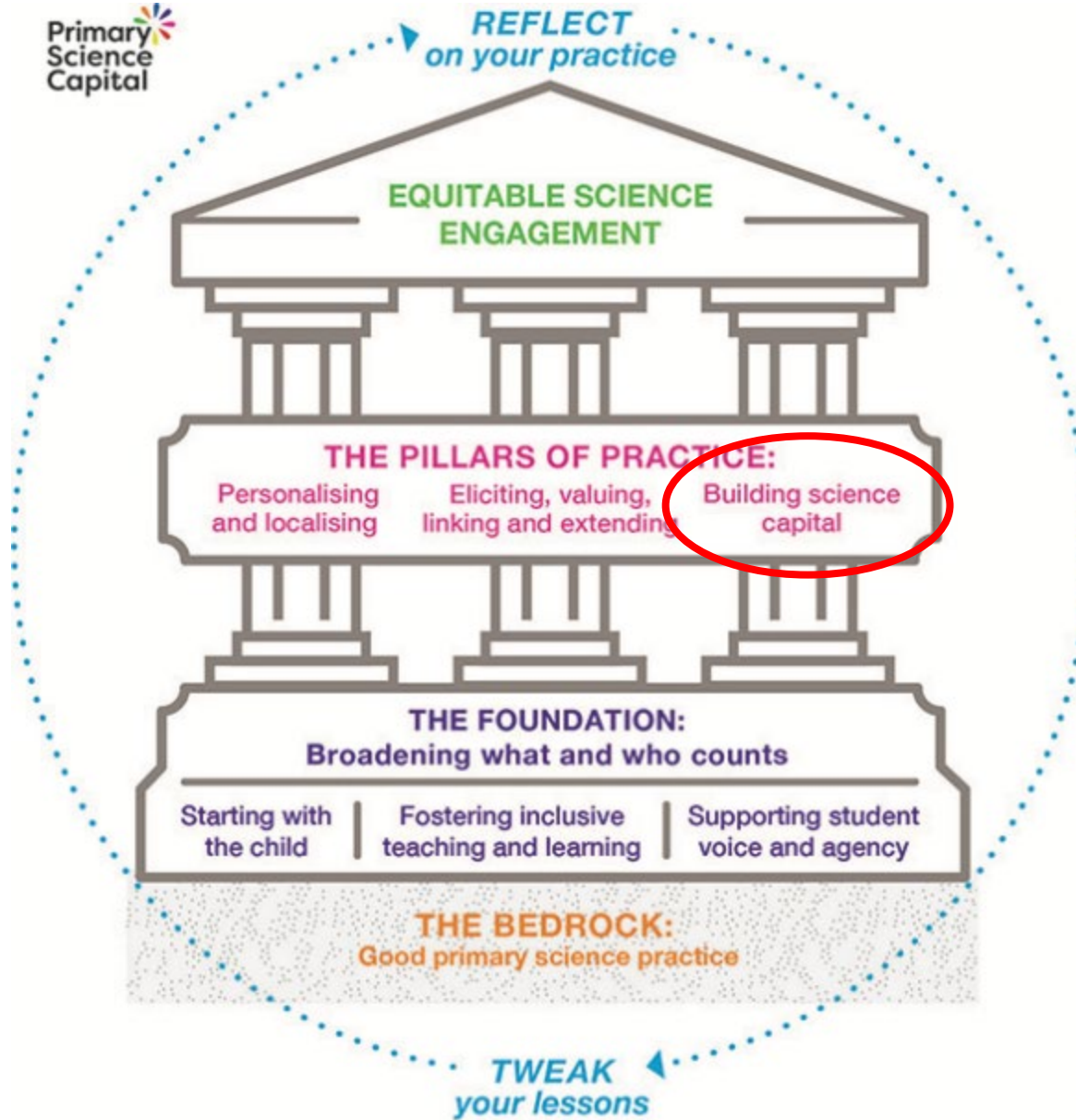
**Learning** – identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.

Give children pictures of different objects. Discuss what they are made of and the properties of each material.

Ask why use this material rather than...?

Children to pick an object in the classroom. Draw a labelled diagram showing the materials used. Write underneath the properties of that material.

Complete the sentence: This object is made from ... It is a suitable material because...



Primary Science Capital Teaching Approach Model

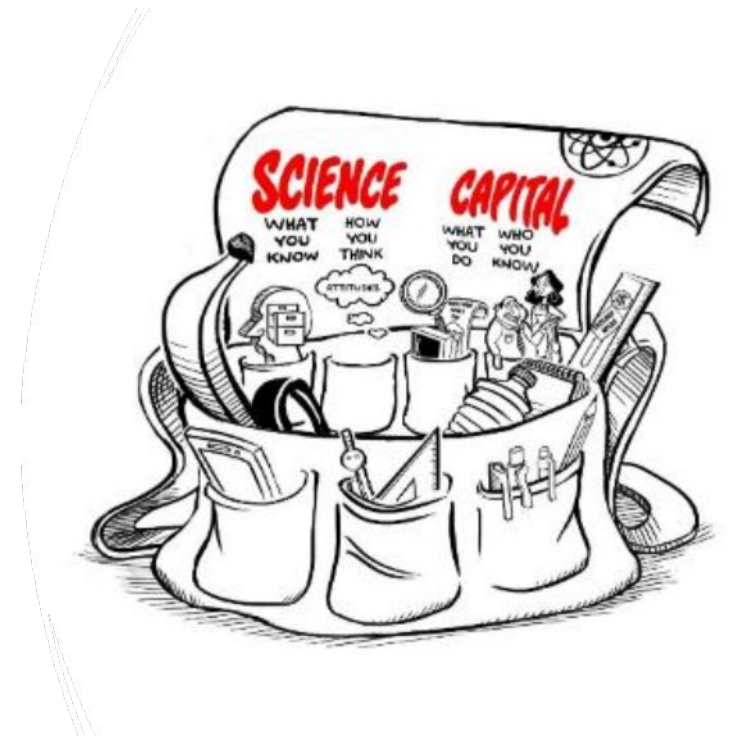


# Building science capital

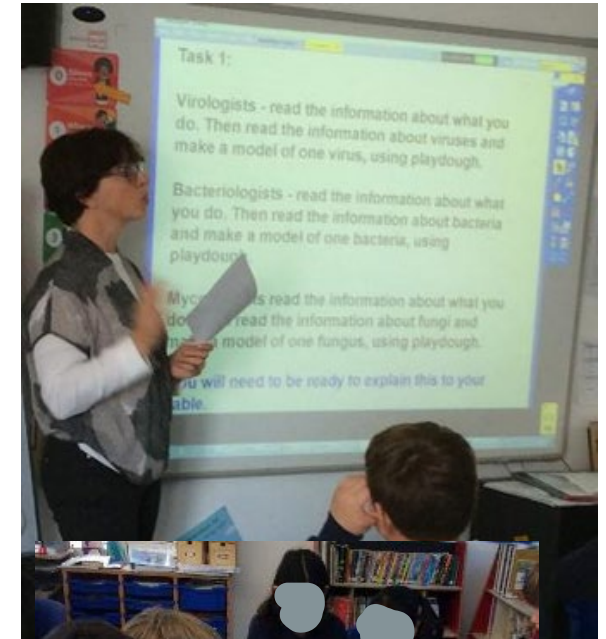
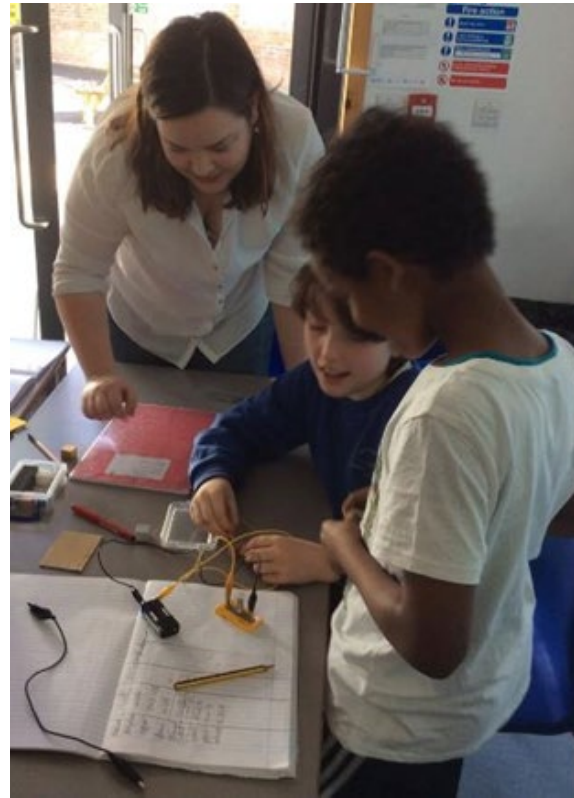
Focus on building science capital in lessons rather than as add-ons or enrichment activities.

Every lesson ask, 'Who needs to know this?'

Broaden the idea of 'who is a scientist'.



# Working with scientists in school



# A SCIENTIST JUST LIKE ME



**Dawood Qureshi**  
**Marine biologist**

# A SCIENTIST JUST LIKE ME

## What do I do as a marine biologist?

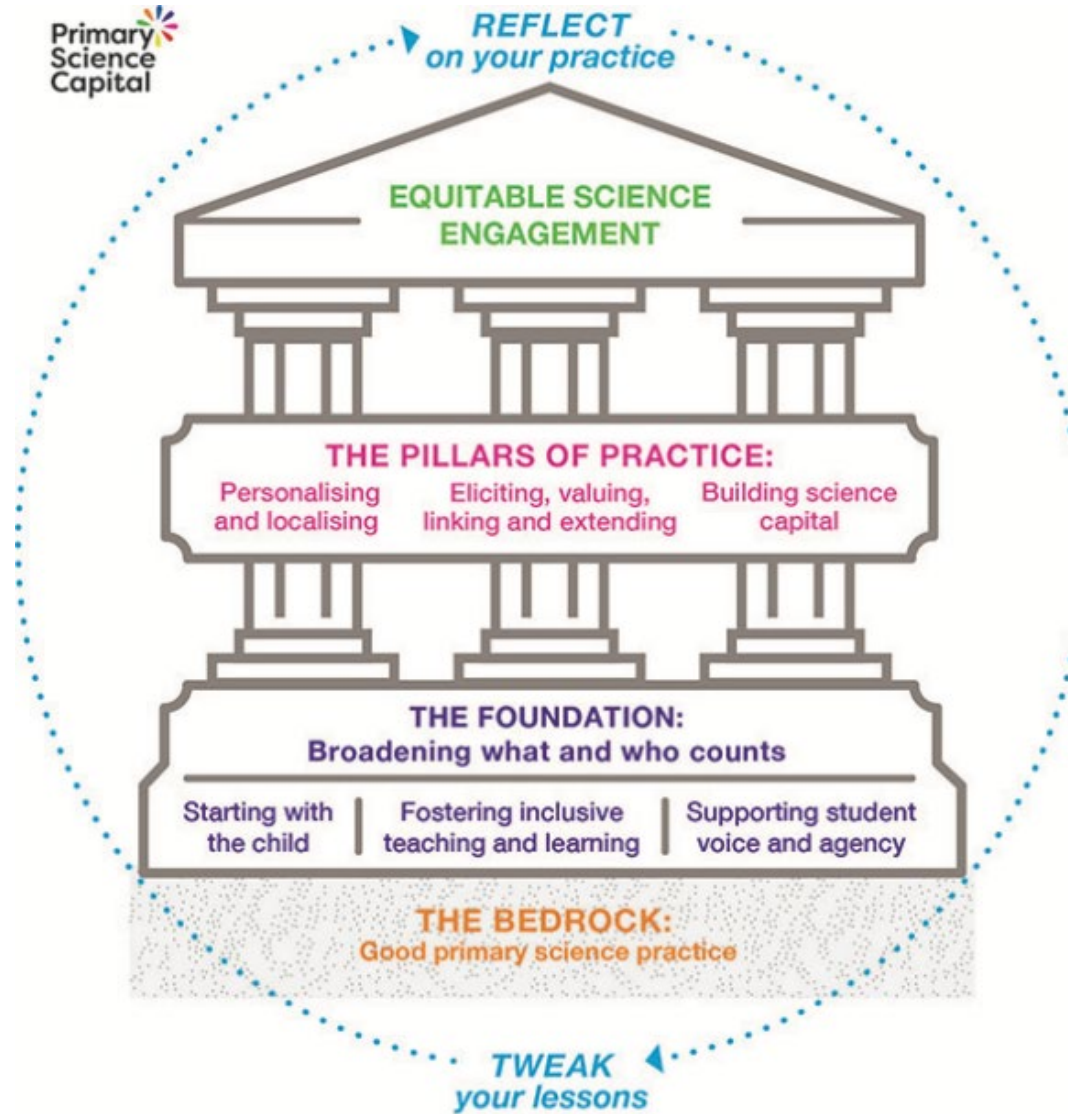


I study wildlife in the ocean, such as dolphins, whales, fish and even crabs, and I get to see these creatures up close sometimes! As marine biologists, we get to see the world and travel the seas, and to understand the life that exists in our oceans.

## How does what I do make the world a better place?

I am trying to save the world's oceans from becoming filled with rubbish, and to help save all the animals that live in these oceans. My work helps with knowing where families of whales or dolphins are, so we can save them from being hit by ships or caught by hunters.

# Summary



Primary Science Capital Teaching Approach Model

# Resources



Have you ever?

Celebrating Scientists

**A SCIENTIST just like me**

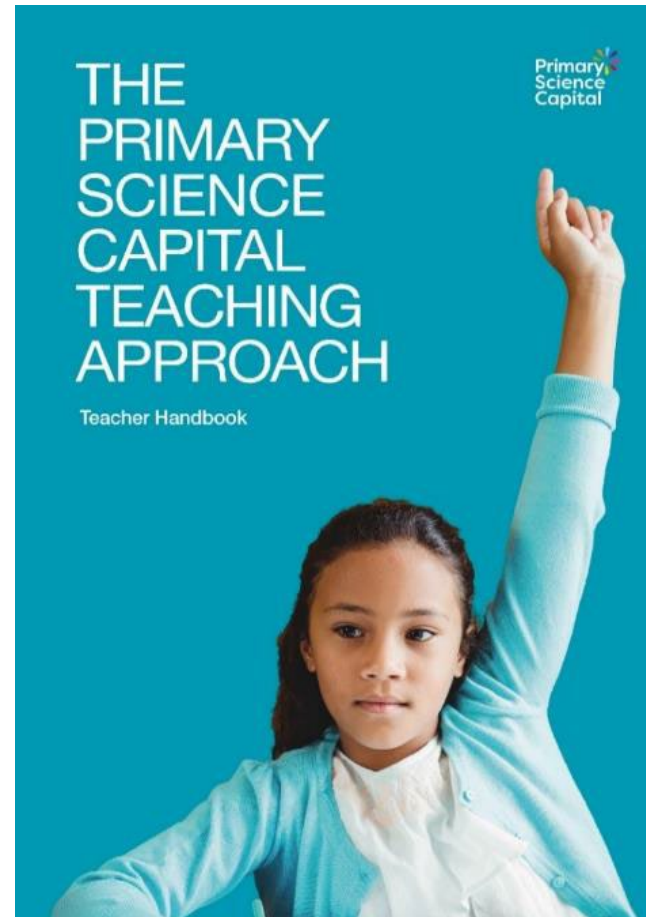


**PSCTA accredited trainers**

[info@pstt.org.uk](mailto:info@pstt.org.uk)

# PSCTA handbook

<https://discovery.ucl.ac.uk/id/eprint/10136335/>



@\_ScienceCapital @PrimarySciCap #PrimaryScienceCapital