Epistemic Insight

The Epistemic Insight Initiative

CPD Webinar 1: Introduction to Epistemic Insight

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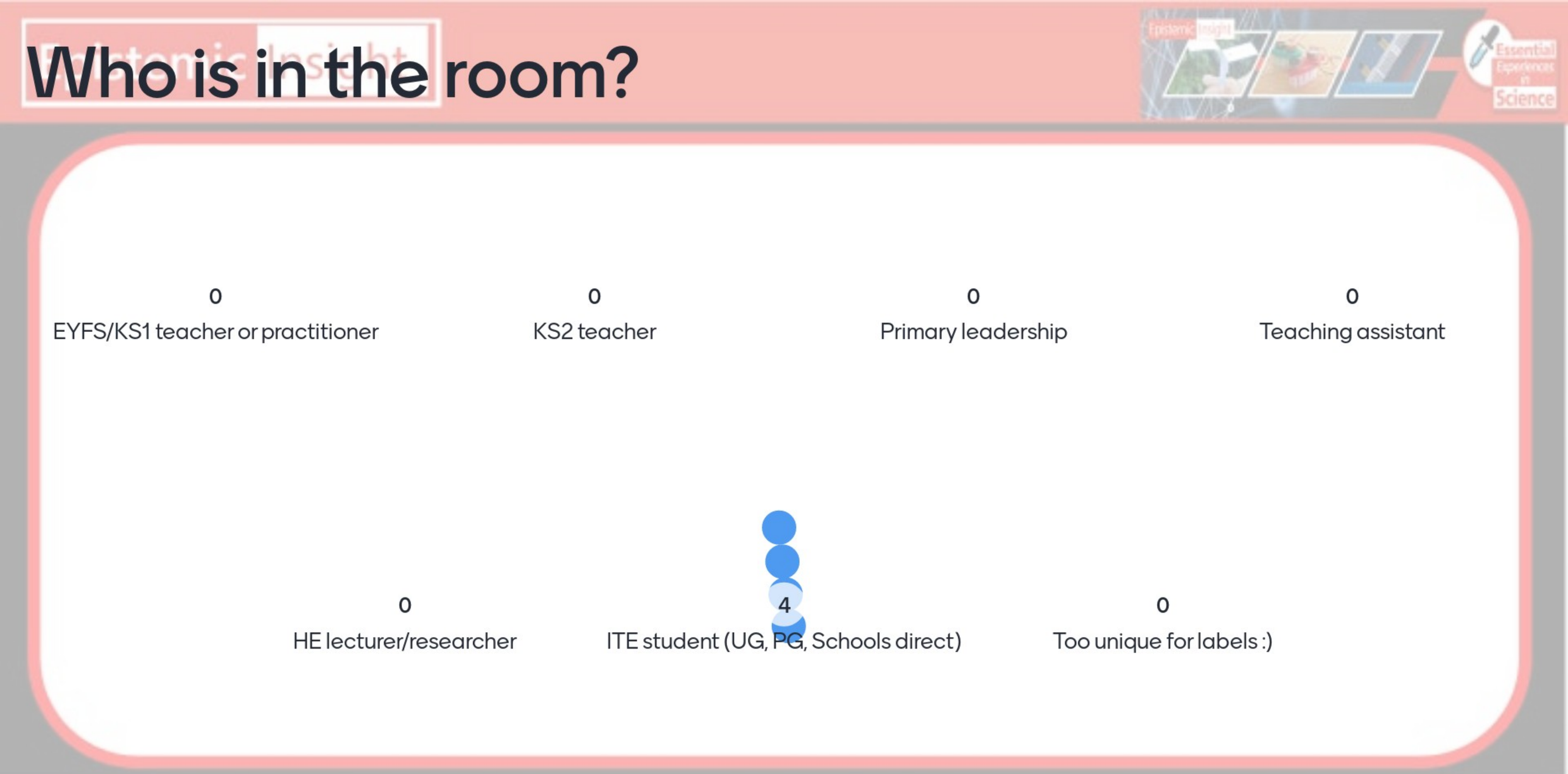
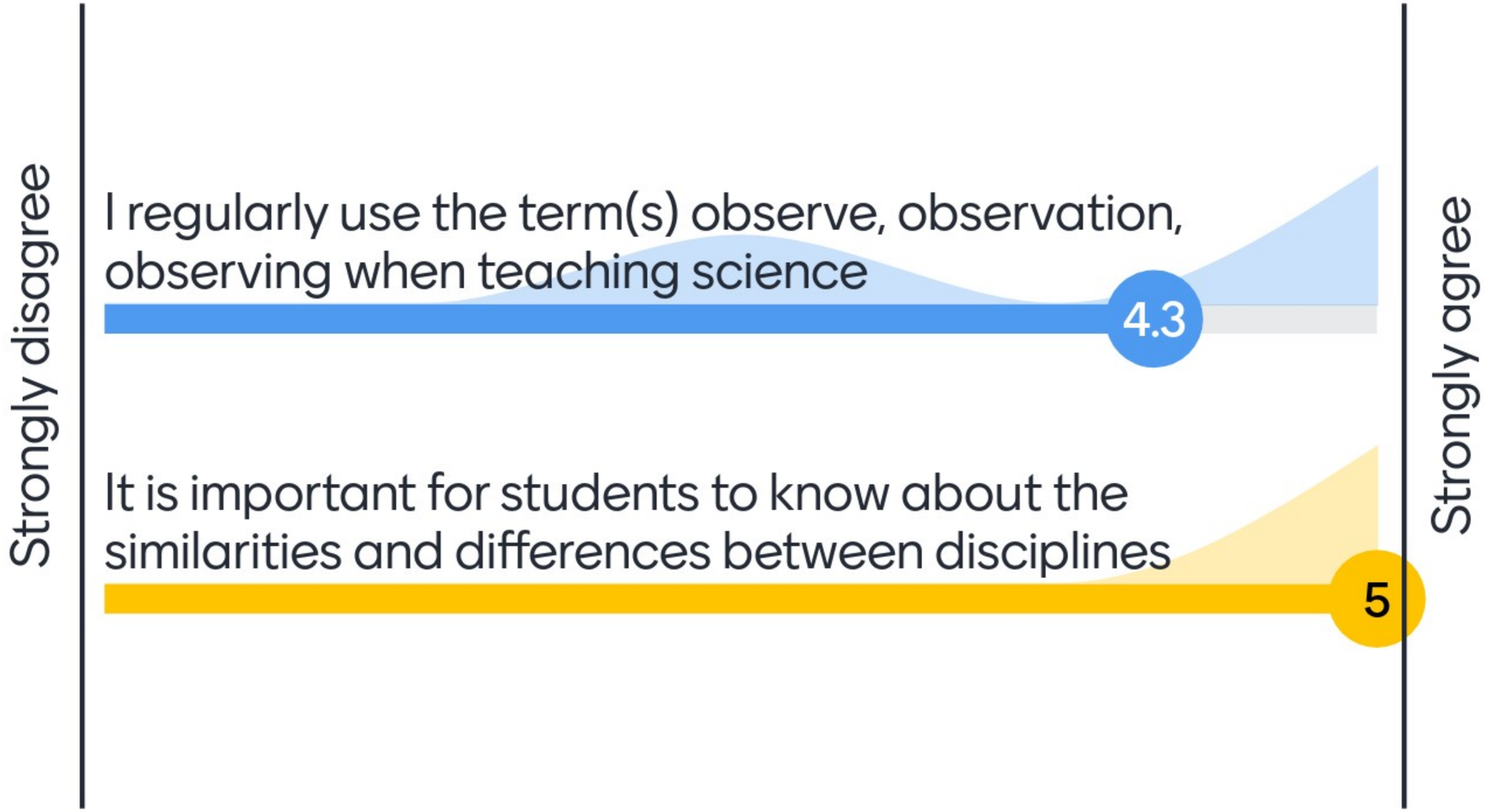
@LASARCentre
#EpistemicInsight

Canterbury Christ Church University

Who is in the room?



What do you think about these statements?



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Essential experiences in Science

An exciting new scheme for Years 4-7 which address NC topics e.g. air resistance, friction.

When: The project will run from now until the end of the year - you can stay as long or not - as you like

***What's on offer*:** Free printed investigation cards, free resources, opportunity to attend webinars and to ask for support from local EI research lead

Why: By joining this project it means children are doing hands-on science enquiry - and the investigations can be taken home in the event of a local lockdown.

***What do teachers do*:** We are asking teachers to give the children in their class a short before and after survey, and to help create their own lesson plans with support.

How do I get involved: Book onto as many of the webinars as you like through: https://www.eventbrite.co.uk/o/lasar-centre-at-cccu-30754621852 and contact **Lasar@canterbury.ac.uk**, if you are interested to be a teacher researcher in your school.

12th October Essential Experiences in Science: Why do spinners spin? https://tinyurl.com/Why-do-spinners	Why do spinners spin? Children learn about the nature of science in real world contexts and multidisciplinary arenas. Supporting teachers to use the investigation card, supplemented with other resources.	Card Spinner template Teacher notes Pupil activity sheet	Forces Y5 – air resistance, friction and gravity	Survey questions Can children identify 'observations' as key to appreciating how science works What kinds of questions are amenable to science? Science begins with observations

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Developing Knowledge

- How do we gain knowledge?
- Does knowledge change over time?
- Can different disciplines provide complementary (but different) types of knowledge about the same question?

What is Epistemic insight?

Epistemic insight is knowledge about knowledge – particularly knowledge about disciplines and how they interact.

It is both a pedagogical approach which recognises the distinctiveness of disciplines and an intellectual virtue that is both teachable and assessible by highlighting a discipline's preferred questions, methods and norms of thought

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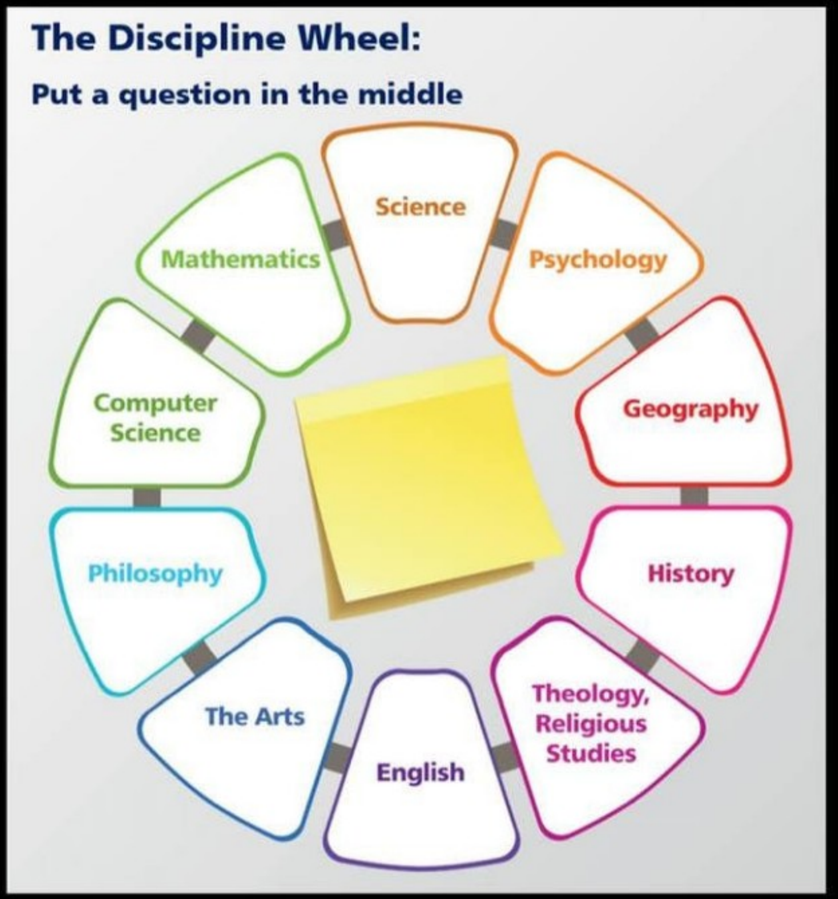
A Pedagogical approach
The distinctiveness of disciplines

- What are the characteristics, strengths and limitations of a discipline or area of knowledge?
- How do disciplines interact to inform our thinking about different types of questions?
- Why does it matter how a question is framed?
- What are a disciplines preferred questions, methods and norms of thought?

Lets take a look at an example…
How is tea made?



Select two disciplines to investigate the question. How is tea made? Why did you select them?

English and Science

Geography, looking at where tea leaves come from and the journey they go on to become the products we know

History - The story of tea from China

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EI Fit to National Curriculum

What is the difference between:

- Curriculum content
- Curriculum intent

Key Stage 1	• asking simple questions and recognizing that they can be answered in different ways
Lower Key Stage 2	• Asking relevant questions and using different types of scientific enquiries to answer them
Upper Key Stage 2	• asking their own questions about scientific phenomena
Key Stage 3	• become aware of some of the big ideas underpinning scientific knowledge and understanding.
Key Stage 4	• develop understanding of the nature, processes and methods of science [...] that help them to answer scientific questions about the world around them

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Teachable and assessible

Teachers can support students to 'think like a scholar' by answering three questions:

1. How does a discipline interpret the question?
2. What methods would this discipline use to investigate the question?
3. How would a scholar of this discipline know they had a good answer? (What does the discipline value?)

Lets look at the question:
Why does a spinner spin?
Is this a good question for science to answer? Why is it?

Why does a spinner spin?.. is a good question for science because...

It's observable

Measurable

you can explore the concept of force/ air resistance

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The Epistemic Insight Curriculum Framework

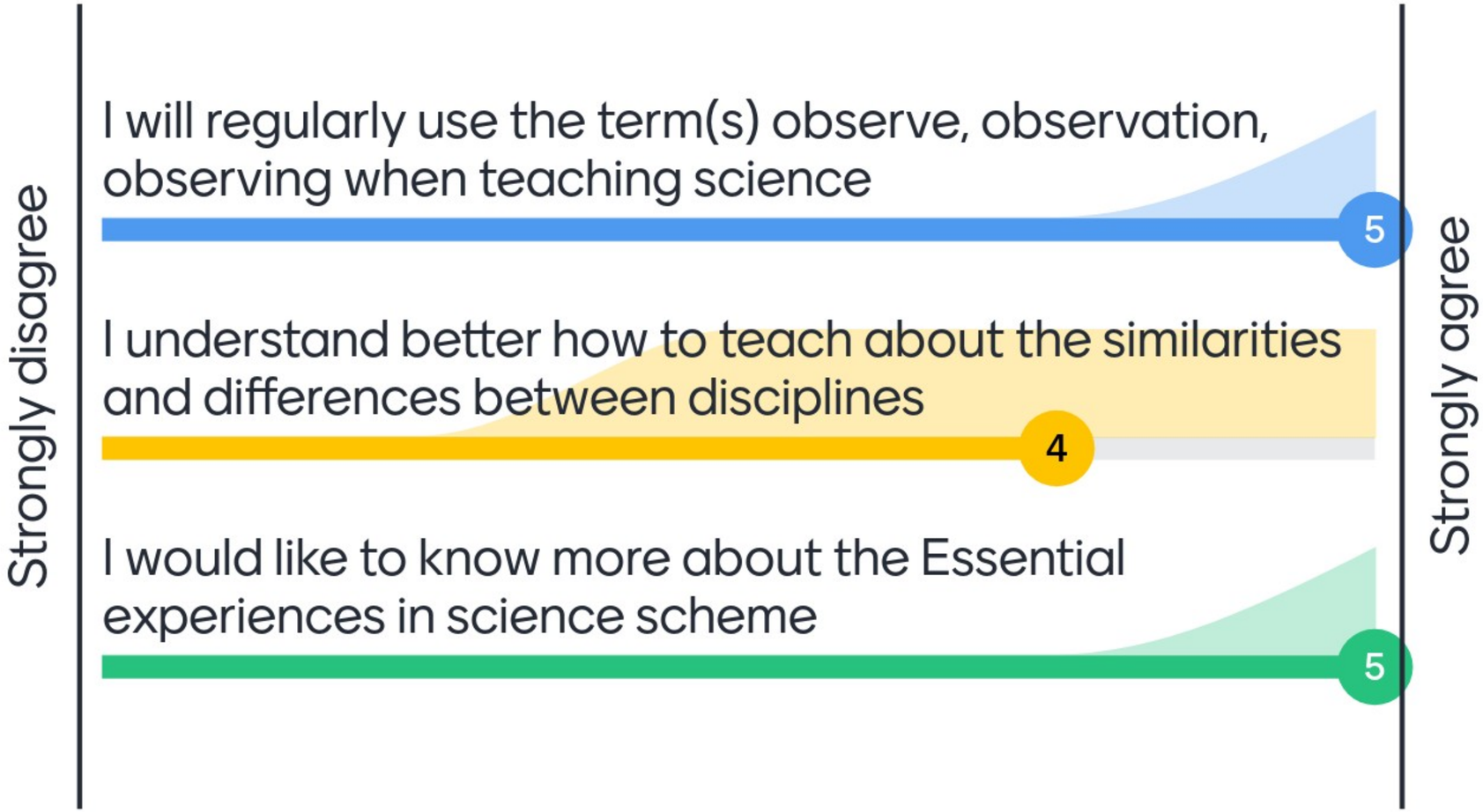
Upper Key stage 2

"Science begins with observations of the natural world and constructing ways to explain our observations.

Some methods are more scientific than others."

LEARNING OUTCOMES	Relationships between science and religion	The nature of science in real world contexts and multidisciplinary arenas	Ways of knowing and how they interact
UPPER PRIMARY	Science and religion are mostly concerned with different types of questions, including different types of why question.	Science begins with observations of the natural world and constructing ways to explain our observations. Some methods are more scientific than others.	Science has some similarities and some differences with other ways of knowing that we learn about in school.
LOWER SECONDARY	Today we ask big questions about human personhood and the nature of reality that bridge science and religion. Some people say that science and religion are compatible and some people say they are not.	Science informs our thinking about every aspect of our lives. Some questions are more amenable to science than others. There are some questions that science hasn't yet and may never be able to answer.	A school is a multidisciplinary arena. Different disciplines have different preferred questions, methods and norms of thought.
UPPER SECONDARY	Science and religion are not necessarily incompatible.	Scientism is not a necessary presupposition of science.	Some questions are more metaphysically sensitive than others.

How will you respond to:



Essential Experiences in Science

Ways to teach Epistemic insight	https://tinyurl.com/Ways-to-teach-EI	5th October
Essential Experiences in Science: Why do spinners spin?	https://tinyurl.com/Why-do-spinners	12th October
Introduction to EI and EES repeat session	https://tinyurl.com/Intro-to-EI-Repeat	14th October
Essential Experiences in Science: Why did the Titanic sink?	https://tinyurl.com/Why-did-the-Titanic	9th November
Bridging questions: How do we make sense of music?	https://tinyurl.com/Make-sense-of-music	16th November
Essential Experiences in Science: Why plants matter	https://tinyurl.com/Why-plants-matter	23rd November
Bridging questions: Reaching the South Pole	https://tinyurl.com/Reach-South-Pole	30th November
Essential Experiences in Science: Grip or Slip	https://tinyurl.com/Grip-or-Slip	7th December
Bridging questions: What do maps tell us?	https://tinyurl.com/What-do-maps	14th December

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Next session: 9th November

Why did the Titanic sink?

This session will explore a bridging question which focuses on the disciplines of **science** and **history** to interpret or investigate the question. It will compare science and history and consider their similarities and differences to develop students' understanding of science in real-world contexts and multidisciplinary arenas.

- Preferred questions
- Methods
- Norms of thought

https://tinyurl.com/Why-did-the-Titanic

Join our teacher researchers: Survey your class before/after a card investigation. Gain free resources and equipment (Headteacher consent required)

Name

Email address

School address or ITE tutor group