

## Tips to develop Epistemic Insight in the Classroom to Engage and Inspire Students (and their teachers!)

### **RE and Exploring Questions**

Richard Kueh gave a keynote speech 'Religious Education and the Education Inspection Framework' at the RExChange Festival 2020 in his role as HMI Subject Lead for RE. The online audience was informed that RE is an important and vital part of the curriculum. Kueh spoke of Personal Development and RE's role to problematise content, drawing out the importance of not only substantive knowledge based on content (what to know) – but also 'ways of knowing' (how to know). Becoming critical about what we know and how we know it, he explained, are keystones to developing students' self-awareness and identifying epistemological misconceptions and insights – what we identify as intellectual character and virtues. This process provides opportunities for teachers to spot and challenge epistemological misperceptions.

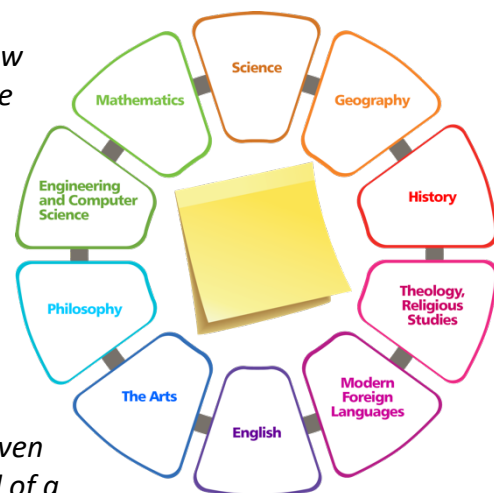
What are some examples of this process? Do your students talk about 'facts' as exclusively found in science? Do they also say that 'opinions' are the basis of learning in RE? If so then why do we have this dichotomy and division between RE and science lessons – as though they cannot agree on how knowledge is formed? It happens because of the entrenched compartmentalisation of a student's timetable – or in other words – because students so rarely (if ever) have opportunities to compare and contrast how different knowledge domains work. Looking to try a more cohesive approach to teaching and learning? Read on!

Here are some easy ways that you can give students a more informed, holistic and joined up picture of how the knowledge domains work. In the new Ofsted inspection framework – this learning is called 'disciplinary knowledge'. We call it 'epistemic insight': i.e. knowledge about disciplines and how they interact to address different types of questions

### **TIP 1 - THE DISCIPLINE WHEEL**

*From the day when Year 7s arrive in secondary school the guide they have to help them to relate areas of knowledge is ... a timetable. The relationship between these 'boxes' of learning is that they are the order in which they take place in the day. It's useful in terms of getting students to the right place at the right time.*

*But in terms of giving students a big picture of how the world of knowledge works, it leaves a lot to be desired! What kind of a tool would be more meaningful as a way to encourage interest and reflection on how knowledge works? The Epistemic Insight Initiative provides a tool for this purpose – the Discipline Wheel. Placing a discipline wheel in a student planner and/or on their classroom desk is a way to encourage students and teachers to make connections between subjects. Furthermore, if students are given a question to put in the middle at the start or end of a lesson, they can examine the distinctive ways that two or more disciplines interpret and investigate that question.*



## **Using the Discipline Wheel in changing learning environments**

Developing and testing tools that will help us to teach better is a key aspect of our practice as educators. Now is an opportune time to be looking at how we can move towards a more joined-up and multidisciplinary view of knowledge. The standard organisation of classrooms into separate subject silos creates little or no incentive for studying the distinctive perspectives that different disciplines bring to an everyday question or problem. Once they arrive students are surrounded by posters, prompts and vocabulary walls specific to the subject in their timetabled lesson. Often, questions that were relevant in one classroom are forgotten in the next and replaced with different questions – without any attempt to connect or compare with what has gone before. This year the pandemic has disrupted many of the structures that isolate subjects – both physically and cognitively. In many schools, students are staying in one classroom, while teachers move from room to room. Classrooms have become multidisciplinary spaces - what an ideal time to supplement learning experiences as part of recovery curriculum intervention by asking a big question and exploring it through the lenses of many disciplines.

### **TIP 2 CLASS DISCUSSION - WHAT IS A BIG QUESTION?**

*Thinking critically about the nature of knowledge (gaining epistemic insight) is becoming increasingly important when the curator of knowledge for most of us is an internet search engine. When we meet knowledge in a school library, or a book shop, someone (a librarian or the book shop employee) has thought about how to present the books to us. In the digital age we are often relying on an algorithm which finds answers that 'are most relevant' to our 'search' word or phrase. A human guide or curator might challenge our assumptions about what we want to find out with a prompt like, "is this the best question to ask?". Now that children are working directly with online platforms, they will need the skills and practice to ask critical questions themselves. Here's another way to reveal a gap in many people's epistemic insight (or knowledge about knowledge). For example, try asking students to explain, "what is a science question?" or try to explain it yourself. It's surprisingly hard. One student in one of our research studies told us, "it's a question you find in a science book." Religious Education is a subject that contains many disciplines including theology, philosophy and social studies (Chipperton, Georgiou, Seymour and Wright 2018). In one subject there are at least two disciplines we can compare across most topics. In the RE lesson, students could be encouraged to identify a question we might ask when investigating and seeking to understand 'religion'? These processes help to develop disciplinary knowledge by offering opportunities for insights into 'ways of knowing'.*

### **Investigating Big Questions**

In RE lessons students will probably have encountered 'big questions'... so how one might define a big question? This approach encourages a discussion about different kinds of questions; open, closed, speculative, 'big'. In the panel session of the RExChange conference it was asserted that young people tend to say 'big questions are questions that matter' on both personal and wider community levels. Whilst this is true it is important for students to recognise that many questions matter and not only big questions. Big Questions are questions that we define as about human personhood and the nature of reality - they are

questions that are often addressed through the lenses of science and religion. It could be argued that in 'religion' we are looking for a teleological answer - an answer to a question about the nature, meaning and purpose of our lives. Big Questions may lead to a discussion investigating responses to "is there a God who intends the universe to exist?". In 'science' we tend to reframe big questions into smaller questions we can investigate - such as what mechanisms in nature are at work to have outcomes that provide the environments for life to flourish. Students may struggle to definitively answer questions that religion asks 'scientifically'. Building an appreciation that individuals will often call on their own experience and on a range of ways of knowing to formulate an answer (which sometimes leads to uncertainty or ambiguity) is an important insight for students to gain. Our role as teachers and 'guides in a learning journey' in the classroom is to ensure that questions are asked and investigated. It is vital that a dialogue about 'ways of knowing' takes place - without this interaction can lead to misperceptions and perhaps an unspoken acceptance in students' minds that the 'knowledge of science' necessarily leads to the assumption that a religious belief is redundant or meaningless.

In my experience, this dialogue and countering an 'either/or' message is more likely to be heard if it's investigated by two teachers (science and RE) working collaboratively. In your school, is there an opportunity for two (socially distanced) teachers to share a classroom for a lesson in science and the humanities? For more ideas, activities and resources, see contact details for the Epistemic Insight Initiative below.

### **Summary and Further Tips for Epistemic Insights in the Classroom Summary**

- A discipline wheel on desks/in student planners means students are not exclusively using timetable to see how subjects interact - this may be particularly easy to do now some Year 7s (and other year groups) tend to be based in one classroom
- Encourage teachers to 'ask about the lesson' that students have just experienced so that naturally arising links can be explored - reducing the disjointed experience of a school day
- Explain that issues like the coronavirus pandemic 2020 call for multidisciplinary ways of thinking - and exploring why it is important to understand and apply a range of questions and methods (ways of knowing) to inform our responses to challenging dilemmas that we face as humans
- Understand the importance of how being epistemically insightful can help us to consider a question from different perspectives and resist responses led by dogma, propaganda, misinformation and 'fake news', enabling students to develop skills that will support their preparations for the roles and responsibilities of adulthood
- Encourage RE and Science teachers and middle leaders to read the curriculum guidance documentation of their and other subjects (often reading the introductory 'purpose' section of curriculum guidance is helpful to compare and contrast key elements that will contribute to exploring Big Questions in the classroom)
- Coming up with simple language and question 'bridges' to help children understand how the subjects / disciplines connect and intersect. It's a way to counter the view that science gives us facts and religion gives us opinions. We can replace this misperception with "science asks small questions and what we find out helps us to think about the Big Questions we consider in RE"

*Dr Berry Billingsley and Mina Cullimore participated in the RExChange conference in the first weekend of October. Culham St Gabriel hosted this year's RExChange Festival online; this was a conference for teachers, advisers, leaders and members of religious and non-religious worldview communities where ideas and innovative developments in teaching and learning were shared and discussed.*

*The Epistemic Insight Initiative (the schools outreach program of LASAR/Learning about Science and Religion at Canterbury Christ Church University) is now in its third year, with activities are taking place through action-research projects with teachers in schools across the country. Primary school teachers are attending online CPD and using Essential Experiences in Science activities in the classroom and to support home-learning, secondary schools are engaging with Permeable Walls for KS3 and 4 and Saviour Sibling Sessions being delivered in KS5 sessions. For more information and to get involved contact [lasar@canterbury.ac.uk](mailto:lasar@canterbury.ac.uk) and explore [www.epistemicinsight.com](http://www.epistemicinsight.com).*