

HOW CAN I TEACH ABOUT TRUTH IN A COMPLEX WORLD?



ABOUT NICER

The National Institute for Christian Education Research

NICER is a University Research Centre at Canterbury Christ Church University. It undertakes research to inform the contribution of faith to the public understanding of education, to aid the mission of church schools, universities and Christian education in communities, to develop and improve religion and worldview education, and to support the work of Christians in education and leaders in education. It uses qualitative, quantitative and mixed methods research approaches in that work, and has developed novel approaches to investigating school ethos, character and curriculum in Christian schooling.

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This project is being funded by Templeton World Charity Foundation as part of a wider scheme of research titled Big Questions in Classrooms.

Although studies have explored school pupils' attitudes concerning science and religion, there has been little research on beginning teachers' experiences in their development and formation and not much is known about how big questions are framed in classrooms or the extent of teachers' experiences of the science/religion encounter. This project addresses the gap, develops informed responses for teacher education and finds some preliminary understandings of the impact of the use of that knowledge in teacher education programmes.

Find out more at: **www.nicer.org.uk/science-religion-encounters**



TEMPLETON WORLD
CHARITY FOUNDATION



BIG QUESTIONS
in CLASSROOMS

HOW CAN I TEACH ABOUT TRUTH IN A COMPLEX WORLD?

Science Religion Encounters Toolkit 4

INTRODUCTION

How should a pupil make sense of what Science and Religious Education lessons offer, especially when they have aspects of shared content, but might cover different ways of knowing?

This resource supports an exploration of ways of knowing, how they are currently covered in your school and how they might be explicitly taught in the future.

TASK 1



Scenario

Consider this scenario, based on true events.

A Year 10 pupil comes to her RE teacher and says, "I did the Big Bang twice last week. On Monday I did it with you in RE. On Wednesday I did it in Physics."

In her books she has the work from Physics which lays out the information about the discovery of Red Shift and how the theory of the Big Bang then developed. In RE there is information on Red Shift and the Big Bang, and also how different Christians and different Muslims relate this to their sacred texts, and differing beliefs about the origins of the universe.

The pupil had both 'treatments' of the subject of origins. The teachers were not aware of the timing of this topic in the other subjects. But what was she supposed to take away from these two treatments? How should she make sense of what the different lessons offered together?

- **Is this a situation pupils in your school would recognise?**
- **You may wish to talk to a science teacher about when pupils cover origins of the universe in Key Stage 3, GCSE and A level.**

TASK 2



Commentary

It has been suggested that we live in a 'post-fact' world, with competing truth claims about some of the most important things, such as what defines a human person's identity or what causes the spread of the COVID-19 virus. In this 'post-fact' world different groups hold different 'authorities' to be sources of guidance. This is particularly important for the universe's origins, about which there is a great deal of discussion, and this is a topic that can be treated by both science and RE.

In comparison with other subjects, RE makes more of the different 'epistemologies' (ways of knowing) and different approaches to giving authority to different kinds of sources, as part of the knowledge being taught. As a result, there are debates about different 'reasons' and beliefs about things. In physics - the disciplinary knowledge (way of knowing) matters. This is the 'working scientifically' part of the National Curriculum.

This raises interesting questions for how pupils might draw on these experiences to help prepare for the competing truth claims they will encounter in life.

1. **How does the education your pupils receive prepare them to live in a post-fact world?**
2. **Have a conversation with the Citizenship/PSHE co-ordinator about supporting students in a 'post-fact' world.**
3. **Why might this cause difficulties for young people? How might teachers of different curriculum subjects work together to help pupils identify different ways of knowing in a post-fact world?**
4. **Why might it be important for schools to have joined-up thinking about how this is explored across the curriculum?**

RESEARCH SUMMARY

Student teachers' comments on ways of knowing in science and RE

17 focus groups were held with 75 student teachers from 6 different universities. In the focus groups, student teachers spoke explicitly about different ways of knowing in science and religion. These quotations could be useful in an RE or science ITE session discussing the relationship between the two subjects.

When I was teaching it [science and religion], I came across a thing that was basically saying that a Science and RE are asking the same question but in different ways. So RE is like why does the world function in this way, why we live in patterns. Whereas Science is answering how. And I think that's quite interesting like kind of asking the same question in slightly different ways. And often I find with Year 9 upwards they very much go to "the how's the most important" because that is what they can understand logically. So I think there is a really, I think they can work together to answer the questions about how the world works in the way it does.

[Student RE teacher]

I was just actually saying about building a relationship between the Science department and the Religion department. I had a discussion a couple of weeks ago, prior to lockdown happening where we talking about these educational issues that are in current science and they are pretty prolific. Space for example in Key Stage 3 and then you have IVF and your blood transfusions in Key Stage 4 and 5. And for me, I was saying, could the Science teachers and the RE teachers come together and identify these possible, I suppose, clashes, and work together on making resources. So that when these questions do come up that we have the resources available to be able to answer the questions and doing justice both for Science and for Religion as well.

[Student science teacher]

Both of them are trying to explain the meaning of life in different ways. And they try to also explain the purpose of life. While Science is trying to define the purpose of life, not using metaphysics, religion is using metaphysics. And obviously it is interesting the late development in-between these two because obviously we have at the moment, the issues trying to prove the existence of God and they're trying to prove that God does not exist. But in the end we are trying to focus in what is there, apart from humanity. And I think the link is just amazing and the conversations going on between the two are just fantastic. And that is challenging, not just religion, so Christian apologetics is actually growing thanks to this. So now we are articulate the religious beliefs in a better way, in a more powerful way, with really good resources behind, backing up what we're saying than before. And I think that is very important, thanks to Science.

[Student RE teacher]

Just for a difference, because I actually studied Religion up until university level. And even from my own experience as a student and even seeing it these days, in Science lessons it's very much like facts and laws and we try to build up a foundation on these scientific laws and it's very much like set in stone that it is this and that's the rule. In Religion lessons from what I've seen it's very much; a question is posed and there's a freedom in which ideas are readily shared and people have a discussion and there's an argument for and an argument against, if you get me, in classes.
[Student science teacher]

When I think about Science I think the general attitude of the scientist as somebody who can also have this elastic way of thinking that you know, the idea, you have a theory and you hold that until other evidence comes along and then you get rid of it. You just discard it. Because more evidence is come to show something else. Rather than being committed to theories because you have an emotional attachment to them or a personal attachment to them. the evidence says this, so I'm going to hold this belief until other contrary evidence comes along... To transfer that word over to RE, I think the evidence is different. And possibly more flexible in that when you're talking about evidence in science we're talking about empirical evidence or mathematical evidence. And when we're talking about evidence in RE it might be, you might use for example, a contradiction in a way that your belief or practice goes against another system, say in human rights. And you realise this contradiction. You think OK, actually this challenges another system of beliefs that I belief in some aspect of human rights. And then when you become aware of that contradiction that is evidence against you. You know either the human rights beliefs have got to give or your practice has got to give. And it's that system of belief as something that should be coherent I think that can be used as evidence or people can talk about evidence in that way.
[Student RE teacher]

TASK 3



Learning from research

In a research focus group of beginning teachers, one student RE teacher said:

“Well my idea of a relationship between religion and science I think they are both lenses with which to view the world.”

This quotation leads to many questions. Are the lenses seeing the same layer of meaning in the world? If so, this would mean religion was an alternative way of finding out things to science. Or are they seeing different layers of meaning?

This might suggest that there is a kind of multiverse of meaning. This is a contested area of debate among thinkers. For instance some argue that values can be discovered through an examination of reason, some argue they arise from an intuitive source, and some argue they are revealed from a noumena or divine source.

1. **What is your response to the ‘different lenses’ approach to the relationship between science and religion?**
2. **Student teachers in our research focus groups were asked about science and religion.**
3. **Which of their comments on different ways of knowing resonate with you? Why? Do you think some of their arguments are flawed? Why?**

TASK 4



Conversation with older pupils

- Have a conversation with older pupils in your school
- Do they feel that different 'ways of knowing' have been made explicit to them in their education so far? In RE, or in other subjects?
- Have they had to work out different 'ways of knowing' for themselves, or has it been made explicit to them during their time at school?

TASK 5



Resources

The following links are to different approaches that you may wish to integrate into your RE lessons.

- Take 10 minutes to look at each.
- Share your findings so far with your head of department or mentor.
- Where might you fit such themes and approaches into your RE schemes of work?

The **Texts and Teachers** project explores teaching sacred texts in RE hermeneutically, so that pupils can gain an understanding of the different layers of meaning that a text may have. A teacher might feel they want to tell pupils 'what the sacred text means' but there are more useful question strategies that explore more interesting hermeneutical dimensions of making sense with texts.

For instance, "What meanings might this text bare?" This guide has practical approaches to how teachers can approach teaching a text with the interpretation of the text at the centre of focus, with suggested questions and procedural knowledge patterns for lessons.

This can be used for Primary and Secondary RE for the teaching of Christianity and Islam. Resources for this are available at:

- <https://nicer.org.uk>

The Bible Society produced a specific free resource on the different ways early Christians made sense of origins in creation myths, available at:

- <https://www.biblesociety.org.uk/education/guides/>

Did you know that Origen, an early Christian thinker, speculated about different kinds of meaning to understand creation narratives much as people do today? *The Creation Narratives Genesis 1-2* resource provides key knowledge about Biblical worldviews around creation and how those texts were discussed by early Church thinkers.

This provides really helpful background information written to share directly with pupils or be adapted into a lesson by the teacher.

Julian Bagini has written a short helpful book, ***A Short History of Truth***, published by Quercus in 2017 , a short part of which was published online at:

- <https://www.theguardian.com/lifeandstyle/2017/sep/17/is-this-really-a-post-truth-world>

RE teachers often need to use the word truth and it is helpful to be aware of the different ways that word is used. Bagini's guide summarises them in an interesting way. This is a very helpful introduction to thinking about the different ways we use the word Truth which would help with topics around ultimate questions (like arguments for certain beliefs and doctrines, or philosophical questions about suffering or the existence of God) in RE.

The Philosophy for Children Co-operative provides lots of different resources that encourage children to develop reasoning and questioning skills of philosophy in the classroom. Resource for primary teachers, also useful for lower secondary.

- <https://p4c.com>

This particular resource explores facts, truths and lies so that pupils can be helped to explore and contrast concepts such as 'Opinion, Belief, Truth, Knowledge, Attitude, Justify, Certainty, Fact and so on.'

- <https://p4c.com/future-truth/>

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