



Berry Billingsley

Friends, rivals or pen pals?!

Thinking creatively about religion and science

I asked a group of Year 6 children to draw a scientist. Moments later I was presented with drawings of short men in lab coats with large glasses, sparks above their heads and wielding test tubes. Oh!

'Is this really what scientists look like?' I asked one of my cartoonists.

'Some do,' he said looking defensive. Anyway, what else are you meant to draw?'

Good point. Take the scientist out of the lab coat, remove the glasses and the sparks – and what have you got? An ordinary person!

How science and religion relate

Teaching about science and religion is complicated because there are a lot of different beliefs in society and in classrooms. Teachers I've consulted explain that they don't want to give children a particular view. There are, however, some key ideas that I think can help children to make progress in their own reasoning.

Some children have scientists as parents and some of those scientist-parents will have a religious faith. Those children will have access to the idea as they grow up that science and religion can be compatible. What has amazed me during many years of looking at children's ideas about science and religion is how many children seem not to have met this idea. They grow up believing they have to make a choice.

More than ever before, primary school teachers now have an opportunity to change this and to ensure that children know that there are many ways to think about how science and religion relate.

Evolution has now been added to the Year 6 Science curriculum and there is also now an objective that talks about Origins in the Key Stage 2 RE Framework.

When you plan your teaching for these objectives and when you reach out for that worksheet that shows the scientific idea in one box, the religious idea in a second box and the question: 'what do you believe?', please pause!

If children see science and religion in separate boxes, it reinforces the idea that these are choices. Simple choices are of course what brains like best. And the idea that there is a choice to make is the view that the media most commonly presents: there's the scientific view, there's the religious view ... now choose which one you believe.

So instead of presenting the ideas as two boxes, what about a visual way to show from the beginning the idea that 'science-only' or 'religion-only' are not the only options? What about a hand-out that presents the question differently, such as: *Here are three ideas about science and religion – which one is most like your view?*

Something I have noticed from the interviews I've conducted with children is that they typically see science and religion as competitors in the same space. Some children reject one or other view and those that do bring science and religion together often present a hybrid story in which God and science take turns to make something happen. In my research I call this a 'negotiated view'. So a child might say, God makes the universe, science makes the planets and then God makes the first living thing.

This view is satisfying at first and for many children it is a useful stepping stone. Once children are ready to consider other ways to explain how science and religion might fit together, they should be encouraged to do so as the downside with this view is it encourages children to think that religious ideas and scientific ideas should be open to the same ways of testing.

Different kinds of answers

A different way to see the relationship begins by noticing that science can help us with many of the questions that we want answered – but not all. Physicist Dr Ard Louis at Oxford University explains it like this: 'There are many questions that simply are not open to purely scientific analysis. The most important decisions in life cannot be addressed solely by the scientific method, nor do people really live as if they could.'

When this thinking is applied to origins, the key thing is that science does not tell us whether the universe is created, because science doesn't answer that kind of question. Scientific ideas are those ideas that can be tested and supported by what we can observe. If we look at the universe there is no conclusive physical evidence to tell us whether or not it is 'meant to be here' and so there is room for some people to argue that the universe is made by God and some people to argue that it is not. If the universe is a painting, then science can tell you about the brush strokes and the composition of the paints but it cannot tell you whether you are looking at a work of art.

Dr Denis Alexander is a biologist who believes that God is the author of the whole of creation and this idea wraps around the processes he studies using science. Astronomer Dr Jennifer Wiseman says she uses many lenses to help her to think about the universe – and the telescope is just one. The common theme in these analogies is that scientific explanations are a special kind of explanation and they can often coexist with other types of explanation. My favourite example for this is: 'Why did the doorbell ring?' A scientific answer says – 'because the clapper is striking the bell and producing vibrations that travel to my ear where they become sound.' A different answer is – 'because my friend is at the door'.

This message fits very well with the new objective in the RE Framework for Key Stage 2.

- Pupils discuss different perspectives on questions about the beginnings of life on Earth, so that they can describe different ways science and religions treat questions of origins.

The idea that there can be different ways to answer a question is something many people struggle with. When we ask a question, we expect to get one answer. But here is another example – take the question, ‘Why did the Titanic sink?’

One answer is, ‘because its captain, Captain Smith, didn’t listen to warnings by other ships that there were icebergs in that area.’ Another answer is, ‘because the ship was travelling fast when it struck the iceberg and the impact was enough to snap some of the rivets and rip the Titanic apart.’ These two answers can work together because one answer tells you ‘why – for what reason’ and the other tells you, ‘why, in what manner’.

Not just conflict

The second big idea that children should know is that the idea that science and religion conflict is overstated. When the media report on science and religion it is usually to emphasise a conflict view. This is perhaps not surprising. Very few newspapers would be prepared to have a headline that says, ‘Many scientists think science and religion get along just fine!’ Modern science emerged from a religious perspective of the universe. The idea was that if God created the universe we wouldn’t be able to work out how it works by thinking alone – we would need to do experiments to see what actually happens. Many of our famous scientists of the past and of the present day have been inspired by their religious faith to find out how the universe works. Isaac Newton is one example.

Many paths to truth

The third big idea is that the question of why human beings exist matters to people all over the world – and different people answer it differently. Many children with a religious faith are from Christian, Muslim and Jewish backgrounds. These faiths share a creation text which was first written down by the Israelites many centuries ago. This text is interpreted in different ways by people today and this has produced different views about how science and religion relate. Some historians say that the urge to compare science and religion applies particularly in Western cultures, as these cultures have picked up the idea that

there has to be one single truth. Some other cultures are more relaxed and say that many paths can lead to truth.

Here are three of the answers that are often discussed:

Atheistic Evolution: Supporters of this view believe there is no God. They believe that life is here because of evolution and they also believe that evolution is something that happens without a God.

Theistic evolution: Theistic means it is done by God. Supporters of this view believe that God is the author of evolution. They say that when the Bible says the universe was created in six days, this is a poetic expression. People who support this view say that mainstream science and their religion are compatible.

Young Earth Creationism: Supporters of this view believe that the universe was created in six days. Most also say that the Earth is a few thousand years old. People who support this view see mainstream science and their religion as disagreeing on the age of the Earth.

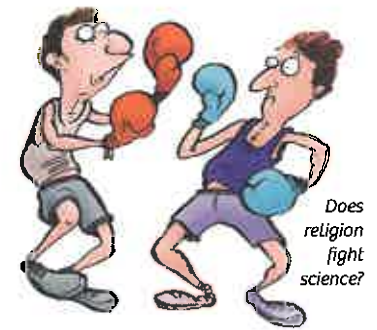
The puzzles, questions and challenges that are stirred up when science and religion are compared have been met in different ways by different people. Many people believe that there is a God who created the universe, listens to prayers and interacts with people. Many of the people who support these big ideas are scientists.



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LASAR provides free one-day events for children and teachers at the university campus at Reading and in other locations exploring big questions. Contact lasar@reading.ac.uk for information. LASAR also offers a website of resources where you can find the images on this page, worksheets, videos and lesson plans. The website is at www.fordagsschools.com



Does religion fight science?

CONFLICT

In the conflict view of science and religion, science and religion are like boxers in a knockout competition.



Can religion and science harmonise

HARMONY

Another view of science and religion says that they work together in harmony.



Are we all travellers searching for the truth?

UNCERTAIN

Some people are not sure how to make sense of all the things they have been told. It’s worth remembering that most people change their beliefs to some extent as they journey through life.