



Messy science and God

Hi, welcome to St Aidan's. Many of you kids know me as Dr King from the after-school science classes. Well, I thought I'd bring a bit of that to St Aidan's today. Have you enjoyed the science experiments today so far? It's quite fun doing science experiments in church, but it's not something that happens very often, is it? Which I find a bit strange, as science is essentially finding out about the world around us, which we believe God created in some way, so learning more about how his world works helps us learn more about God.

But there's been a long history of people thinking that studying science and following God are contradictory – especially when some scientific discoveries don't follow what it says in the Bible. Here's one good example... what do we think about the earth and the sun? Does the earth sit still in the centre of everything while the stars and moon and planets go round it? Maybe that's what some of us think, as we seem to see the sun and moon moving through the sky during the day and night. That's certainly what they thought when they wrote about the earth being the centre of everything in the Bible, as they didn't have sophisticated astronomical equipment to study everything. They wrote about what they could see.

Then, about 470 years ago, Copernicus was looking at how the stars, sun and moon moved, and he noticed that, actually, it seemed that the earth was moving around the sun and the sun was staying still relative to the earth, moon and other planets. Galileo also noticed this and supported Copernicus in these ideas. This did not go down well with the church, who claimed that the Bible taught that the earth was the centre of the universe and what Galileo was saying was against God. So Galileo was kicked out of the church! I'm planning to do a couple more science experiments in a bit and hopefully they'll work okay, otherwise I may be kicked out of this church!

Anyway, as you may have noticed, most people these days agree that Galileo was right and the sun is more central, with the earth and planets going around it. And so they take it that the scientific evidence is right and therefore claim the Bible is wrong... so now scientists are kicking out the church people.

But we must take a step back and remember two things:

Firstly, the Bible was inspired by God but written down by people quite a while ago, so how people understood things back then was different to now. Maybe God chose not to reveal everything to them as they may not have been quite able to believe it if it didn't tie up with their observations. So maybe we shouldn't take some things the Bible says literally when it comes to scientific observations; maybe we should keep an open mind in when science seems to contradict the Bible.

Secondly, science is also understanding things only in part. We are constantly learning about new things and revising our theories about how things work when we realise that we haven't got it quite right the first time. Science doesn't know everything yet, and what is claimed as fact in once century can be shown to be less true as further discoveries are made the next century. Even scientists can't

agree amongst themselves. Is a glass of wine good for you or bad for you? The Bible certainly talks a lot about wine... Maybe we should keep an open mind when the Bible goes against our current scientific thinking.

But back to the earth being the centre of everything like the Bible claims. What's most exciting about this is that scientists are beginning to work out that maybe it is! There is the Big Bang Theory, and scientists have observed all the stars and such moving away from us. According to the theory, there was no 'space' before the Big Bang... just a singularity (i.e. everything in the whole universe concentrated into a single 'dot'). And where was that 'dot'? Well, it was everywhere as there was no 'space'. So in fact the earth, where we are right now, was and is the centre of everything. As astronomers observe it, the universe is expanding away from us. So maybe the Bible wasn't so wrong after all?

What we should all remember is that we're still learning about everything and we must never presume we've got everything right. So, perhaps, instead of saying science is right/wrong or the Bible is right/wrong, how about remaining open-minded and accepting of both? And look more to how we can learn from both to help us live healthier, happier, more fulfilled lives?

Because being open-minded is really what science is all about. Being open-minded helps us to observe and write down what we see. We can then try and work out what we think it is happening or why something is happening. By sharing what we have found, we can help make this world a bit better to live in. Isn't that what lots of scientists are trying to do? Find cures for diseases, find ways to predict the weather or earthquakes or tidal waves so better warnings can be given?

When Jesus was around, there was lots of illness, poor sight, deafness, bad weather, all sorts of things with no real cure or ability to predict. Because of this and the risk of diseases being caught, people were excluded from the community. And fishing trips could be quite treacherous. It was hard to work out if the crops would be good or if they would fail and there'd be little food. Jesus came to say that this is not how God meant the world to be. Jesus came to encourage people to work together, change opinions and ideas and improve their lives so we could all live in the way God intended for us. God really doesn't want us to suffer – he loves us. But because we turned away from God, these hardships have crept in. Jesus showed us, through miraculous means, that God could cure people of these diseases. Jesus cured many cases of blindness, epilepsy, skin diseases, etc. – so many miracles, seen by many. He was able to calm weather. And in the past, God even helped people predict the future with dreams... remember Joseph and his dream coat? He helped the Pharaoh of Egypt by understanding his dream that there'd be seven years of good harvest followed by seven years of crop failure, so they could plan ahead and avert a famine.

But today, we tend to forget these miracles and take less notice of dreams and such. And yet these miracles are all around us! See these glasses? Well, that's a cure for blindness. How about this Calpol? Teething pains and headaches, solved. Implants can cure deafness; there's medication for epilepsy; treatments for cancer have helped in many cases; organ transplants are commonplace now if people have poor hearts, kidneys or lungs. We even get many cures for diseases from plants: foxgloves help with heart problems, willow with pain, and maybe now daffodils with dementia. We claim this is all down to science, and fail to acknowledge that God is probably playing a part in it all. He played a part in the past, so why not still today? Certainly, finding cures from natural things, plants like daffodils and willow and foxgloves... well, that's saying the cure has been there all the time, if only we knew where to look or happened upon it by chance.

Take the discovery of penicillin, for example. This wasn't something someone worked hard to find; it was a chance discovery... or was it? Was it God somehow working in the background? Helping the scientist to notice something different and to work out what was happening? Providing a glimmer of

inspiration? Well, I am a scientist and I see God at work every day in the world. Whether or not the scientist knows it, I still think God is there in the midst of it all and the miracles keep on happening. We're just so used to them that we don't notice them anymore.

So science and God can be seen as working together, instead of being at odds with each other. And, as science is all around us and we're very familiar with it, and as it's about finding out more about God's world, why not use experiments to learn more about God, or to demonstrate what life is like when we work with God? Jesus used to tell people about God using everyday things people were familiar with. He talked about farming a lot, and families and food and parties, to show what God was like. He called these parables.

But sometimes, as we're not farmers for example, these stories don't make as much sense today and they have to be explained to us. Sometimes we can't picture the things Jesus talked about so easily. And who really knows, first-hand, what happens if old wine is put into new wineskins? So how about I do a couple of science experiments now to show what our life is like if we have God and Jesus in it? Maybe this way the messages will be easier to remember.

1) Candle, water and glass experiment:

(Lots of wows as the glass, placed over the candle, extinguishes the flame and the water gets sucked up around the candle.) So the science behind this is that the candle burns up some of the air in the glass, which then needs to be replaced by the water. But what can this tell us about God? Well, God is like the candle and the things we do that God doesn't like are like the flame. We are the water, near God but maybe not so close to him. It's often hard to stop doing bad things, all on our own. But Jesus is like the glass. He helped us 'put out' our sin and, by doing this, by extinguishing our sin, it allows us to draw closer to God.

2) Overflowing:

Add hydrogen peroxide to a tube with yeast and washing-up liquid in. Everything bubbles up, and bubbles up, and bubbles up, and eventually overflows everywhere. The science here is that the hydrogen peroxide reacts with the yeast and lots of oxygen is released, which forms bubbles in the washing-up liquid. And this continued flow of bubbles that overflows out of the container is a bit like when we experience God's love for us. It just grows inside more and more and eventually spills out so that we want to share it with the world in whatever way we are inspired to do. For me, it's about sharing my love of science and nature with children and adults, so they may have added appreciation, awareness and wonder of the world. For others, it may be sharing music, or being a good friend. Whatever it is, if we add God into the mix, it is easier to share more and do more as His love just spills out into the world.

So hopefully, from this, you can see that science is really exciting and God is really exciting and that the two can work together. Science needs people to work together and share information and, if we involve God in the mix, maybe this will help us eventually to work towards the sort of world God intended for us all along? Do you know the Lord's prayer? There's a bit when we ask, 'Thy kingdom come'. Maybe, by involving God in our science, instead of trying to do things on our own, we can work towards God's kingdom (which means the world working in the way God intended) coming on earth as it is already like in heaven? And in the process, we'll make even more exciting discoveries, or come up with even more miraculous cures for diseases, find out even more about this awe-inspiring universe we live in, and find out more about our God who created it and wants to share in it with us because he loves us.

So happy experimenting and discovering! But ALWAYS ask an adult first, because it's great to do lots of scientific discoveries, but I don't think God's kingdom is about burning down the kitchen or exploding the living room in the process, is it, parents?