## Science & Faith Lesson (Written for Year 9)

\*The numbers alone the left column correspond to PPT slides\*  $\,$ 

1) Introduction		
2) Question: Do you think there's a conflict between science & faith?	Upfront Teaching/Student Participation	Before we go any further, I think that we need to define some terms so that we are all on the same page. When we talk about faith and science we need to be aware that there are many different faiths and lots of different types of science but today we're going to be talking about the Christian faith and the natural sciences that is chemistry, biology and physics.  There are different perspectives on this topic. Who here has had something said about them that's untrue? Think about how that made you feel? Misrepresented?  That's what it's a bit like with Faith & Science, there is definitely misrepresentation.
3) Question: Which areas of scientific theory/discovery do you think could clash with traditional Christian beliefs?	Group Discussion	Perhaps write down your answers - or just have a general think about what areas of Science & the Christian Faith you think clash?
4-8) Scientists who are Christians	Upfront Teaching	One of the reasons why we don't think there is a conflict is the high number of scientists who are also Christians. On this slide are just a handful that we have found, do you recognise any of these names?  FRANCIS COLLINS was born in 1950. He is the director of The Human Genome Project which is a multi-billion-dollar project that mapped the genes in human beings. He advocates the perspective that belief in Christianity can be reconciled with acceptance of evolution and science. Collins has written books on both science and his Christian faith and is very open about both aspects being huge in his life.  BILL PHILLIPS won a Nobel Prize in Physics in 1997 and He is part of the Methodist church.  JENNIFER WISEMAN: We couldn't let the men take all the credit, so here is a woman scientist too. currently she is the head scientist for the Hubble Telescope at NASA's Goddard Space Flight Centre, she is also a Christian.

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9) What do you think Christians believe about how the world came into being?	Upfront Teaching/Student Participation	Christians believe that God created the universe and everything in it. This belief is called Creationism, because "God created". The account of how God created is found in the very first book of the Bible, Genesis.  Christians believe several different things about this passage because people interpret differently. There are three clear interpretations of this passage and therefore three beliefs about Creation.  We're going to be putting on 3 different 'hats' and we encourage you to put on the hat as well and if you believed that perspective, it will help you to understand it more rather than thinking about it negatively.
10) Video	Visual	https://www.youtube.com/watch?v=uw_g_3UGSpw  How this person sees his faith fitting with scientific understanding.
11) Young Earth Creation	Upfront Teaching	In summary, it's saying the earth is a few thousand years old rather than millions, hence the term young earth.  It is the belief of some Christians that this passage is to be taken completely literally, that this is the exact blueprint of how God created everything.  For some people, this view might sound bizarre and untenable, however thinking with their hat on, it's worth noting that within the perspective of a supernatural, all powerful creator - it is possible for God to have created something that appears old but in reality is not. Example: Jesus turning water into wine.

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12) Old Earth Creation	Upfront Teaching	The second prevalent view regarding Genesis is similar in some ways and different in others. In this view, Christians believe that God created the world in the same order as in Genesis however the word day might not literally mean a 24 hour period.  They believe this because there are references in Psalm 90 and 2 Peter 3 which talk about a thousand years being like a day for God. In Psalm 90 the word day used in Hebrew (Yom) is the same as the word day in Genesis 1.  Because this view sees the world as possibly being very old, depending on how long each of these periods of time are, it is called Old Earth Creation as it recognises that the earth could be very old indeed, could be millions of years!
13) Theistic Evolution	Upfront Teaching	The third and final belief that some Christians have concerning Creation that we will look at today is that the writings of Genesis are simply poetry, they believe that the account is not to be taken literally but instead are to be seen as a hymn and praising God as Creator. People with this view see God as the initiator who set things in motion and see the process of evolution.
14) What is the Big Bang Theory?	Ask students - group discussion	Ask students their views on the Big Bang Theory - what does it look like? What do they believe?
15) Question: Do you think that Young Earth Creation and the Big Bang theory can coexist?	Group Discussion	Do you think that Young Earth Creation and the Big Bang theory can coexist?  It is down to personal belief but for the most part, young earth creationists wouldn't agree that the Big Bang fits with Genesis 1.

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16) Question:  Do you think that Old Earth Creation and the Big Bang Theory can coexist?	Group Discussion	Do you think that Old Earth Creation and the Big Bang Theory can coexist?  For the most part, yes they would agree. But it depends on how strictly the Christian holds to the wording of the passage.  God saying "let there be light" and it came from nothing COULD indicate that there was a big bang.  The Genesis account states that there was a clear starting point to the universe, as does the Big Bang Theory. The notion that the universe had a point of not existing and then a point of existence appears in both the Creation story and the theory of the Big Bang.
17) Question: Do you think that the idea that Genesis as poetry and the Big Bang Theory can coexist?	Group Discussion	Christians who believe the Biblical account of Creation is poetic rather than literal are freer to accept scientific theories as they don't have to try to line them up with Genesis.  From what we've briefly looked at, most Christians would agree with the theory of the Big Bang apart from those who believe that God created in 6 days.  For those that believe that God's creation account is poetry and those who believe in Old Earth Creation, the Big Bang Theory doesn't affect their theology, it simply explains in scientific terms how God created.
18) Layered Approach	Upfront Teaching	For a cake, there are lots of different ingredients that's been put into it. You can look at it in two different ways; If you love baking, this might be how you look at a cake. You might try and work out what flavours have in it and how they work together, you might look at the colour to determine baking time. basically you want to get to the heart of what the recipe is and 'HOW' the baker made it.  The opposite of that, you might see a cake like this and why they've made a cake in the shape of the world! Maybe it's for a science project or made it for a friend, you might ask who made a cake like this, they probably have skills but most of all you'll enjoy eating the cake.  You can see a cake in both of these different ways and they don't necessarily disagree with each other, however they give different perspectives. The point being when we think about Faith & Science they give us 2 different perspectives on the same things. On the outside, it might look like 2 different opinions but actually they're both looking at the same thing.

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19) What is the theory of evolution?	Student Participation	Evolution is a tricky one because the term itself means different things and is used interchangeably between meanings. It's important then to define evolution. "In its most general use, evolution just means "change over time" (Gonzalez & Richards, 2013).
20) Do you think that any of the Creationist viewpoints can happily coexist with the theory of Evolution?	Class discussion	
21) Different types of Evolution	Upfront Teaching	Let's have a look, there are two main types of evolution we are going to keep this simple as even these types of evolution have multiple titles so we'll go with, Micro and Macro.
22) Microevolution	Upfront Teaching	The theory of Microevolution is about how a species changes to adapt to their environment.  Lots of bugs, same type of beetle - some have brown others have green. But they are being hunted by birds. These birds LOVE the green bugs because they stand out more, because the brown beetles are more likely to survive, they're also more likely to breed.  As the brown beetles breed with each other, they produce more of the brown beetles, so we obviously have more of the brown bugs than the green ones. These beetles haven't changed species, just the way a specific characteristic has been passed down to make it a common gene.  Most Christians, irrespective of their believe about Creation, don't have a problem with the theory of Micro-evolution as it states that a species remains that species, it simply changes to be a better version of itself and this fits with their belief about a Creator God who has designed creatures to be the way they are.

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23) Macroevolution	Upfront Teaching	The definition of macroevolution is defined as evolution above the species level, or evolution on a "grand scale," Basically- microevolution + 3.8 billion years. It has never been observed.  So although Macroevolution scientifically is held in high regard, that doesn't mean all Christians agree with it. This is due to the theological understanding of humanity- imago dei. This basically means that Christians believe humans are made in God's image. With macroevolution this is difficult because at what point would any say a human became a human?  There are however, many Christians who believe that when God created living things, He placed in them, right back in the very beginning as they are now. This view sees God like a watchmaker who designs and makes a watch that never needs to be wound or have a battery replacement.
24) Quote: Read from PowerPoint	Summary	QUOTE READ FROM PPT

<sup>\*</sup>Please ensure you have downloaded the PowerPoint to accompany this lesson\*