Briefing Sheet Session 1: The Christian Roots of Science

It sometimes feels as if science is about as far away from faith as you can get, because it's done without reference to God. When we look at history more closely, though, we realize that science is based on a series of basic ideas or assumptions that came largely from Christianity.

Various ancient cultures around the globe developed scientific ways of investigating the world, from astronomy to agriculture. The ancient Greeks developed very sophisticated mathematics as well as philosophy. Some Greek philosophical ideas became important in the development of modern science, but others had to be done away with before modern science could begin.

Christian principles, including the examples laid out below, helped to move European science from its infancy in Greek philosophy to the form practiced today, which is based on observation and hands-on research. So although modern science is done in the lab without reference to a God, scientists wouldn't be doing what they do today without the foundation of a Christian cultural setting.

Most of these ideas come so naturally to people living in the deeply scientific twenty-first century that we need to spell them out in order to appreciate how revolutionary they were in their time. For example:

1. We have to investigate the universe in order to understand it.

This was not always as obvious as it seems now. If the universe is rational, and our minds reflect that rationality, why can't we just sit back in our armchairs thinking our rational thoughts, pondering geometry, and understand everything that there is to know about the universe without getting our hands dirty? In fact, this is what people did for a long time. However, Christians believe that God is in complete control of the universe and could have ordered it in any number of ways, because God is free to do whatever he wants. We cannot assume that we know how God works in the natural world. So the only way to find out how God actually works in the world is by doing experiments, and the conclusions are often very different to what you might expect!

2. We can investigate the universe without fear.

Throughout history, and even today in some places, cultures around the world have feared or worshipped nature but have not felt free to investigate it. Because Christians believe that God made the world and said it was 'very good', they can investigate the universe without being afraid of the results. They should push the boundaries of science as far as possible in order to understand God's world more clearly. This can be part of a Christian's worship.

3. The universe can be investigated.

There appear to be patterns within the universe, such as cause/effect relationships and physical laws. They are rational, and they can even be modelled using mathematics, but there is no obvious reason why these patterns are there. A Christian sees this order and understands that, although God can act in whatever way he likes, the rational and consistent ordering of his creation reflects God's faithfulness and mercy.

In practice this means that if you do an experiment in England and someone reproduces it with exactly the same conditions in Hawaii, you will both get the same result. This feature of the world also keeps scientists honest, because they can check each other's results.

4. We have an ability to understand the universe.

Christians have always believed that human rationality is a reflection of the mind of God and part of what it means to be made 'in the image of God'. In point 1, above, we said that we have to go out and explore in order to understand, but it is also remarkable that we can understand what we are exploring. We can recognize the rationality in the universe when we see it.