Where do we come from?

Animation transcript

Billions of years ago, the whole universe was packed tightly together, smaller than a grain of sand. Then suddenly… BANG! It got bigger… much bigger… and very, very fast.

In this early universe there were atoms – the tiny building blocks that would build almost everything else. Gravity pulled the atoms together – millions, billions, trillions of them – and made the stars. And the atoms inside the stars smashed together releasing heat… and light.

In the hearts of the stars, new atoms formed – bigger (but still ever so small) – new building blocks that, in time, would go on to build new things. Things like you. You are made from stardust.

But stars don't last forever. They grow bigger and bigger… then collapse… and explode, throwing the atoms out across the universe. Until gravity pulls them together again to make new stars – stars like our sun – and planets! One of which is very special to us – Earth – our home.

At first the Earth was lifeless and boiling hot. But in the depths of the oceans something sparked. A few chemicals, built from those atoms that had been formed in the stars, began to make copies of themselves. The beginning of life!

Life was very simple for a long time – just single tiny cells. But over time life changed. Slowly at first. Each generation a little different from the last, like children are a little different from their parents. And over millions of years, many many small changes can lead to big changes. Life exploded into millions of brilliant and beautiful new forms, branching in many different directions, adapting to its environment, evolving over time.

We are related to every other living thing on the planet: plants and fungi, worms and insects, fish, amphibians, reptiles, mammals, primates, apes, humans… you! Thinking, feeling, choosing, caring, dreaming, wondering you. Such 'simple' ingredients. Such wondrous results. You are lucky to be here. If any one event in this chain had happened differently, then you might not have made it.

We are all part of this story. We all belong to it. How incredible that we are able to look back and tell this story To answer our questions about where we come from. To see the evidence all around us.

The story is not yet complete. We don't know everything. But if we keep looking, then we might learn more. Maybe you can help.

understandinghumanism.org.uk/res_films/where-do-we-come-from

Understanding Humanism

Teacher's notes to accompany the *Where do we come from?* animation

The animation these teacher's notes refer to can be found here. For further information to accompany this resource in the classroom see Human beings: where do we come from?

While the animation *Where do we come from?* can support young people to begin to understand the scientific explanation for our origins, it is also designed to reveal the wonder that can be found in the scientific story – something that humanists (and others) might draw on as a source of inspiration, meaning, and value in their lives.

A humanist approach to understanding the world

When it comes to answering questions about the world around us, humanists believe that science provides us with the best way of answering those questions. They believe that we should always look for natural explanations rather than turning to religion for answers. Humanists believe we are part of nature: we come from nature (having evolved like all other living things) and, when we die, the materials that make up our bodies will go back to nature to make new things.

A source of wonder

However, for humanists, the scientific account provides more than just a cold, detached understanding of ourselves and the world. It is one that reveals many amazing truths and can be full of wonder.

We are all made from stardust (the elements that make up our bodies were formed in the hearts of stars and in the explosions at the end of their lives).

> 'The calcium in our teeth, the iron in our blood, the carbon in our apple pies were made in the interiors of collapsing stars. We are made of starstuff.'
>
> Carl Sagan, astronomer and humanist

We are connected to every other living thing on the planet (we all share a common ancestor, meaning we are all related). We are part of something bigger than ourselves – the ongoing story of life on our planet. For humanists, our connection with the natural world and life in its many 'brilliant and beautiful' forms can provide a motivating reason to take care of it.

> 'We are part of this natural universe and this natural world. We are part of the story of life on this planet. We can feel a real sense of belonging and connectedness in this story… We're not the pinnacle of evolution. Instead, we are connected with all other species; part of the huge, copiously branching tree of life. As conscious beings, we must surely endeavour to look after each other – and the planet.'
>
> Alice Roberts, evolutionary biologist and Vice President of Humanists UK

Many humanists also see something to be celebrated in the fact that such 'simple' ingredients can lead to such wondrous results - our 'thinking, feeling, choosing, caring, dreaming, wondering' selves. Humanists believe we should use these naturally evolved capacities to try to lead good and happy lives, and support other people to do the same.

> 'Our entire bodies and brains are made of a few dollars' worth of common elements... Assemble them all in the right proportion… and the result is our feeling, thinking, striving, imagining, creative selves. Such ordinary elements; such extraordinary results!'
>
> James Hemming, President of Humanists UK (1977-1980)

Lucky to be here

Humanists also sometimes point out how fortunate we are to exist. Our lives are the result of billions of earlier events, any one of which had happened differently and we might never have been born. Life is therefore something to be celebrated. As are our many natural capacities. Humanists believe we should try to create the conditions for everyone to have the freedom and opportunity to use their capacities and potential to the full.

Our human capacities

Humanists also find inspiration in how incredible it is that we are able to look back and tell this story: that we have evolved the capacity to ask and answer our questions about where we come from and to search for and find the evidence all around us (through astronomy, through genetics, and through the study of fossils (palaeontology)).

> 'Learning about the nature of space and time or the structure of atoms fills me with awe and wonder. It makes me want to learn more.'
>
> Jim al-Khalili, physicist and Vice President of Humanists UK

An ongoing investigation

Finally, humanists accept that we don't have all the answers. Today, science has answered many of our questions but the story of our origins is not yet complete. The humanist approach is to keep looking for natural explanations for anything that we don't yet fully understand. It may be children in classrooms today who one day will help us to understand more about the story of where we come from.

Questions

1) Where do humanists believe human beings come from?
2) Where might we find evidence for the scientific story? Why is evidence important to humanists?
3) Where do you think humanists might find wonder in the scientific story?
4) Why might humanists feel we are lucky to be here?
5) When we don't have an answer to a question about human beings or the world around us, what do humanists believe we should do?