How Long Have Humans Been Around?

If you could squeeze the entire history of the Earth into a single calendar year, modern humans would not appear until the final few minutes of New Year's Eve. Dinosaurs would have disappeared on 26 December, the first forests would have appeared in early December, and for almost the whole year there would have been no people at all. Although humans often think of themselves as the centre of history, we are actually very recent arrivals on our remarkable planet.

Scientists estimate that the Earth formed around 4.5 billion years ago, but our own species, Homo sapiens, has existed for only about 300,000 years. That may sound like an unimaginably long time, yet it represents less than one hundredth of one percent of Earth's history. In other words, if the Earth's history were compared to a 24-hour day, humans would not appear until just a few seconds before midnight.

Of course, humans did not suddenly appear out of nowhere. Like every living creature, we evolved over millions of years. Evolution is the gradual process through which living things change over many generations. Tiny differences that help an animal survive are passed on to its offspring, and over enormous periods of time these small changes can eventually produce entirely new species.

Long before modern humans existed, the Earth was home to many other members of the human family. Species such as Homo habilis, Homo erectus and the famous Neanderthals all walked the planet at different times. Some made simple stone tools, others learned to control fire, and several spread far beyond Africa into Europe and Asia. Rather than imagining human evolution as a straight line, scientists now describe it as more like the branches of a tree, with many different human species existing at the same time before eventually dying out.

The oldest known Homo sapiens fossils have been discovered in Africa, leading scientists to conclude that this is where our species first evolved. Gradually, groups of humans began migrating across the globe in search of food, water and safer places to live. Over thousands of generations, people adapted to very different climates. Some survived freezing Ice Age winters, while others settled in tropical rainforests, deserts or high mountain ranges. These journeys eventually led humans to every continent except Antarctica.

One of the greatest advantages humans possessed was not exceptional strength or speed but an extraordinary brain. Compared with many other animals, humans are relatively slow runners, poor climbers and lack natural weapons such as claws or sharp teeth. However, our ancestors developed something far more powerful: the ability to solve problems, communicate complex ideas and cooperate in large groups. By sharing knowledge from one generation to the next, humans could improve tools, invent new technologies and adapt to changing environments much faster than most other species.

The earliest tools were surprisingly simple. Sharp-edged stones were used for cutting meat, scraping animal skins and breaking open bones to reach the nutritious marrow inside. Over

time, these tools became increasingly sophisticated. Spears improved hunting, needles made clothing possible and fishing hooks allowed people to catch food from rivers and seas. Each invention gave humans a slightly better chance of survival, and each generation built upon the discoveries of those before them.

Fire was another revolutionary breakthrough. Archaeological evidence suggests that early humans learned to control fire hundreds of thousands of years ago. Fire provided warmth during cold nights, frightened away dangerous predators and allowed food to be cooked. Cooked food is easier to chew and digest, meaning our ancestors could obtain more energy from their meals. Many scientists believe that this extra energy may even have contributed to the development of our large brains.

For most of human history, people lived as hunter-gatherers, travelling from place to place in search of food. This lifestyle lasted for well over 290,000 years. It was only around 12,000 years ago that some groups began farming crops and keeping animals. This change, known as the Agricultural Revolution, transformed human society. Permanent villages developed into towns, towns grew into cities and, eventually, great civilisations such as Ancient Egypt, Mesopotamia, Ancient China and the Maya emerged.

Although these ancient civilisations seem incredibly old, they represent only a tiny fraction of our existence. The pyramids of Egypt were built around 4,500 years ago, meaning that humans had already existed for nearly 295,000 years before the first pyramid was constructed. Writing, mathematics, organised governments and impressive monuments all appeared astonishingly late in our story.

Even more surprising is how recently many of the inventions we now take for granted were created. The steam engine helped launch the Industrial Revolution only about 250 years ago. The aeroplane first flew just over 120 years ago, while the internet became widely available less than 40 years ago. Smartphones, satellites and artificial intelligence have all appeared within the lifetime of many adults alive today. Compared with the hundreds of thousands of years that humans have existed, modern technology has developed in the blink of an eye.

Despite everything we have achieved, scientists continue to uncover new clues about our past. Fossils, ancient tools, DNA analysis and archaeological discoveries regularly change our understanding of early humans. New evidence sometimes overturns ideas that researchers once believed were certain, reminding us that science is not simply about finding answers—it is about asking better questions.

So, how long have humans been around? The answer depends on what we mean by the word *human*. Our own species, Homo sapiens, has lived on Earth for around 300,000 years, but the story of our wider human family stretches back millions of years. During that extraordinary journey, our ancestors survived volcanic eruptions, ice ages, dangerous predators and dramatic climate changes. They crossed continents on foot, explored unfamiliar landscapes and gradually transformed the world around them.

When we look up at the night sky or study ancient fossils in a museum, it is easy to feel separated from those distant ancestors. Yet every person alive today carries a small part of

their story. The curiosity that encouraged early humans to explore beyond the next hill is the same curiosity that now drives scientists to explore the deepest oceans, unlock the secrets of DNA and even search for life on other planets. Our history is far older than any country, civilisation or language—but in many ways, it is only just beginning.