



Life™
SCIENCE FOR ALL

Climate Matters

A unique perspective on a global challenge
Autumn 2021

“ The future of humanity and indeed, all life on earth, now depends on us. ”

Sir David Attenborough



“ This is a climate and ecological emergency and I want us to get cracking. ”

Jamie Driscoll, North of Tyne Mayor

“ I've learned to do stuff today that can help the planet. ”

Matthew, aged 12, Life Science Centre visitor, July 2021

A message from the Chief Executive



Climate change and its devastating effect on our planet is the biggest issue of our time. It is widespread, evolving rapidly and intensifying.

Climate change is described by many as a 'wicked problem', difficult to clearly define and hugely complex, with no single solution. The scale of the challenge is daunting and potentially paralysing.

We know that a co-ordinated global effort is essential if humanity is to stand a chance of survival and this will be the focus of COP 26, which takes place in Glasgow in November. Ominously, the symposium has been described as the world's last chance to get climate change under control.

Like everyone else, we are working hard to put our own house in order. We have done some good things but recognise that there is still much more we can do to reduce our own carbon footprint. As the region's only science centre, our mission has never been more important. We are here to engage with the public and to help families and young people understand better what climate change is, reflect on its causes and look forward to a future of solutions.

A recent citizen's assembly created by the North of Tyne combined authority concluded that no one sector can solve climate change on its own and that we all have a role to play. These findings were mirrored by our own youth summit involving over 100 pupils from 45 of the region's schools and colleges. The students discussed potential solutions, with ideas including financial incentives for people to remain childless, eating insects for a sustainable protein source and limiting air travel for everyone to one flight per year. They, too concluded "that people at all levels and from all parts of society have a role to play in mitigating these problems."

The team at Life takes a positive and proactive approach, giving young people and their families a safe environment in which to share their concerns and to explore ways in which they, too, can make a positive difference in such challenging circumstances.

You can read more about the events and activities that we've delivered recently in this newsletter.

As always, we are keen to partner with like-minded organisations and individuals to extend our offer - I'm sure you'll agree that it's never been more important to join forces at this critical time.

A handwritten signature in white ink that reads "Linda".

Linda Conlon

The Life Approach: Inspiring Curiosity and Action

As the region's biggest science centre, Life is committed to helping audiences make sense of complex, controversial and often scary subjects, like climate science. But we also want to inspire and galvanise everyone to consider their role in creating a greener, healthier, and fairer future.

From workshops exploring how human activity has disrupted the Earth's natural cycles to quirky virtual events for adults considering future food solutions, the Life approach is always engaging, interactive, fun, and relevant.

“ There's nothing more caring than saving the planet. ”

Chi Onwurah, MP for Newcastle upon Tyne Central and Shadow Minister for Science, Research and Digital



Gaia

Gaia, created by British artist Luke Jerram, is a mesmerising seven metre diameter installation of planet earth. It features detailed NASA imagery of the Earth's surface and has impressed audiences across the globe from as far afield as London, Hong Kong and Australia. It is suspended in the reception area of the science centre, where this stunning art-meets-science creation can be seen by visitors and externally by the many hundreds of people who walk through Times Square every day. It is a brilliantly accessible way for everyone to consider the fragility and wonder of our planet.

The installation aims to create a sense of the Overview Effect, which was first described by author Frank White in 1987. Common features of the experience for astronauts are a feeling of awe for the planet, a profound understanding of the interconnection of all life, and a renewed sense of responsibility for taking care of the environment.

Earth-themed Discovery Backpacks

Launching alongside artwork Gaia, our youngest visitors will be encouraged to explore nature and look closely at the world around them with a new Earth-themed Discovery Backpack. Visitors under 7 will have the chance to investigate items made from natural materials, such as a slice of wood, and make connections to the great outdoors through touch and feel. By nurturing a love of nature at this early stage, we hope to inspire life-long advocates for the planet.

“ I realised up there that our planet is not finite. It's fragile. ”

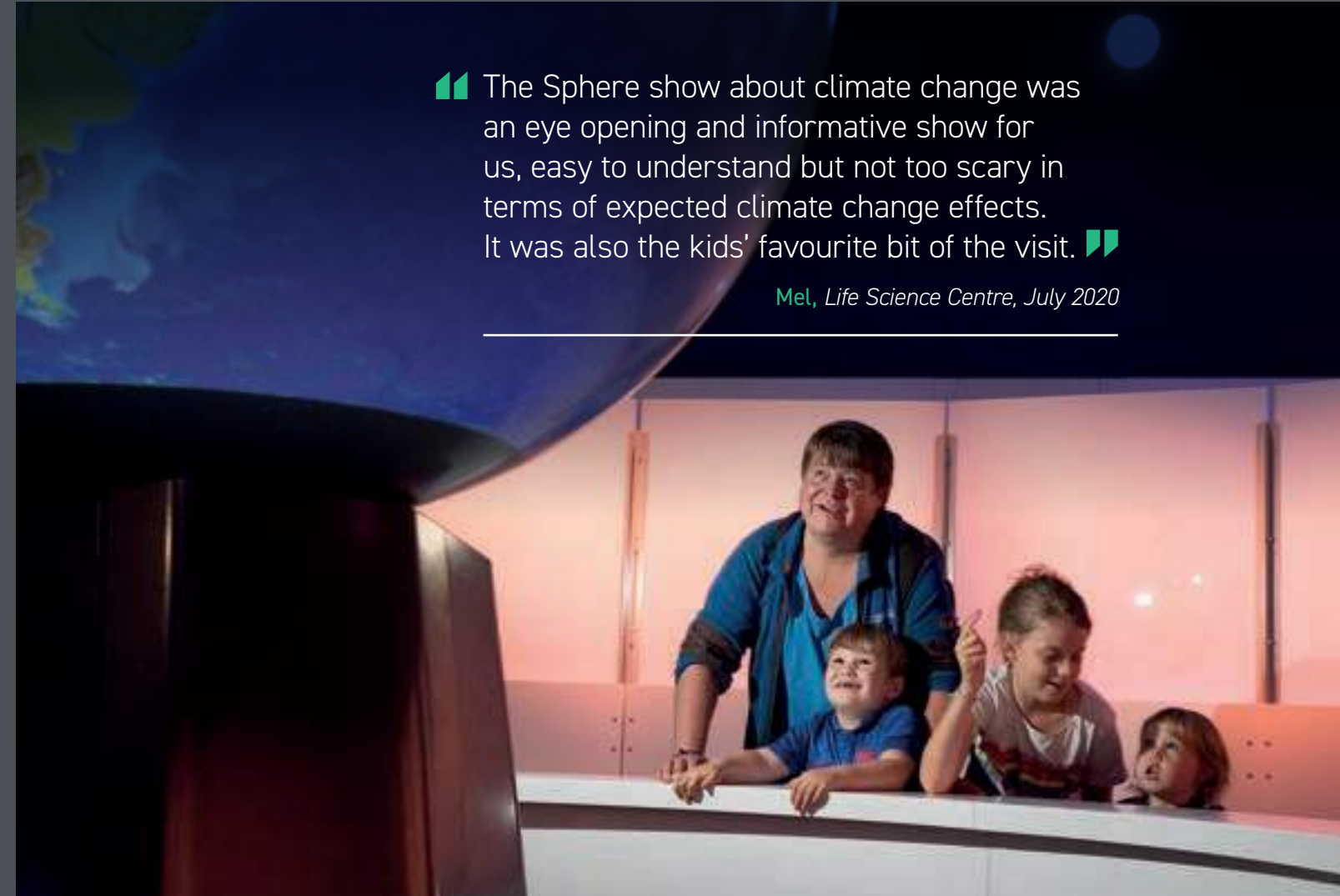
Alan Shepard, astronaut



Space Zone

Space Zone, one of Life's newest exhibition areas, helps visitors explore how we're using space technology in our everyday lives and how the future of space exploration is being shaped right here in North East England. It also highlights the wonder of the earth – its fragility, beauty, and our role in preserving it. STEM career opportunities for young people are highlighted throughout; including jobs related to climate and the environment.

The Sphere is one of the jewels of Space Zone. This is a 1.5-metre-wide digital globe which uses stunning climate data visuals to illustrate why climate change is happening. It explores, for example, how carbon dioxide levels have changed over the last century, the impact this has on global temperatures, and how it affects our daily lives; from eating chocolate to going on holiday.



“ The Sphere show about climate change was an eye opening and informative show for us, easy to understand but not too scary in terms of expected climate change effects. It was also the kids' favourite bit of the visit. ”

Mel, Life Science Centre, July 2020





The Making Studios

This purpose-built studio space has been created to help audiences explore such topics as climate science through hands-on making activities. During the summer, families created mini windmills and wind-powered moving toys to take home, allowing them to explore and harness the power of nature.

“ We have the capacity to create a remarkably different economy: one that can restore ecosystems and protect the environment while bringing forth innovation, prosperity, meaningful work, and true security. ”

Paul Hawken, environmentalist and activist



Live Shows

Interactive shows, presented by Life's science explainers, are a great way to make complex subjects accessible and fun. Chuffing Contraptions, one of the most recent shows, is full of bangs and explosions and explores some of the amazing inventions of the past, while giving a glimpse of what a future world powered by green energy could look like.

In the summer of 2021, YouGov found that the people of the North have not given up hope, with 54% agreeing that we are still able to avoid the worst effects of climate change but it would need a drastic change in the steps taken to tackle it.

YouGov survey, August, 2021.



Experiment Zone

Here, families and schools can try different experiments including how to extract hydrogen gas from water – a green energy source that could soon power our cars and homes. Images and profiles of scientists working in green tech are shared, highlighting the wealth of STEM careers available to people of all abilities.

“ We only get one planet. There is no Plan B. ”

Barack Obama, Former US President



Exploring Future Foods with Families and Adults

This summer Life explored the theme of future foods, inviting visitors to see cells from meat grown in labs onsite, to create homemade oat milk and explore a variety of crunchy insects that might soon be commonplace on our plates. They voted on a range of different food scenarios that they would be willing to try in the future - over 60% said they would be prepared to have a go at growing more of their own food and eat more locally sourced produce.

“ Since our visit we have stopped drinking cow's milk as a step towards lowering our carbon footprint. ”

Sarah, Life Science Centre, July 2020

Virtual Science Speakeasy

The Life Virtual Speakeasy programme has attracted an enthusiastic adult audience that embraces the no-holds-barred approach to contemporary debate. The latest event took place in October.

What's your beef? Is fake meat fake news? discussed how the changing climate will impact human eating habits and relationship with food. Could people be persuaded to eat lab grown meat? Will technology-based solutions work globally? Panellists from around the globe included: Dr Martina Miotto, Chief Scientific Officer at CellulaREvolution, Dr Chris Bryant of Bryant Research Ltd, Dr Peter Newton of the University of Colorado Boulder, and Dr Alexandra Sexton of Sheffield University.



“ You cannot get through a single day without having an impact on the world around you. What you do makes a difference, and you have to decide what kind of difference you want to make. ”

Jane Goodall, primatologist

Young people in particular are becoming increasingly concerned about climate change. 59% of those questioned in a recent survey said they don't believe that their voices are being heard in relation to climate change while 73% said they are worried about the state of the planet right now.

Climate anxiety: Survey for BBC Newsround March 2020.



Introducing Families and Schools to STEM Role Models

Life Science Centre is part of a unique science hub where researchers and clinicians work together to improve the lives of thousands - providing access to inspirational role models. Families and school children are given opportunities through a rolling programme of 'live' and virtual events to see what scientists on-site - as well as scientists and engineers across the region - are doing to combat climate change.

Examples of research include analysing cave stalagmite samples to see what climates of the past can tell us about our current problems, taking samples from local ponds to see what their role is in absorbing carbon dioxide from the atmosphere and looking at how homes of the future could be adapted to form smart networks.

“ It never occurred to me until I visited Life that there were real jobs out there where you can do such cool stuff that can help save the planet. ”

Josie, aged 17



New Schools' Programme

Life provides an ideal environment in which all students can flourish, raise their aspirations and actively consider the wealth of stem careers available to them. One of the aims of the new programme is to highlight the kind of jobs and skills needed to respond to the green revolution taking place in the North East. Young people can see scientists and engineers "like them" who have rewarding careers and at the same time are striving to mitigate and adapt to climate change.



“We are the first generation to feel the sting of climate change, and we are the last generation that can do something about it.”

Jay Inslee, US politician

“We all need to wake up to what our children already know – a climate catastrophe is coming.”

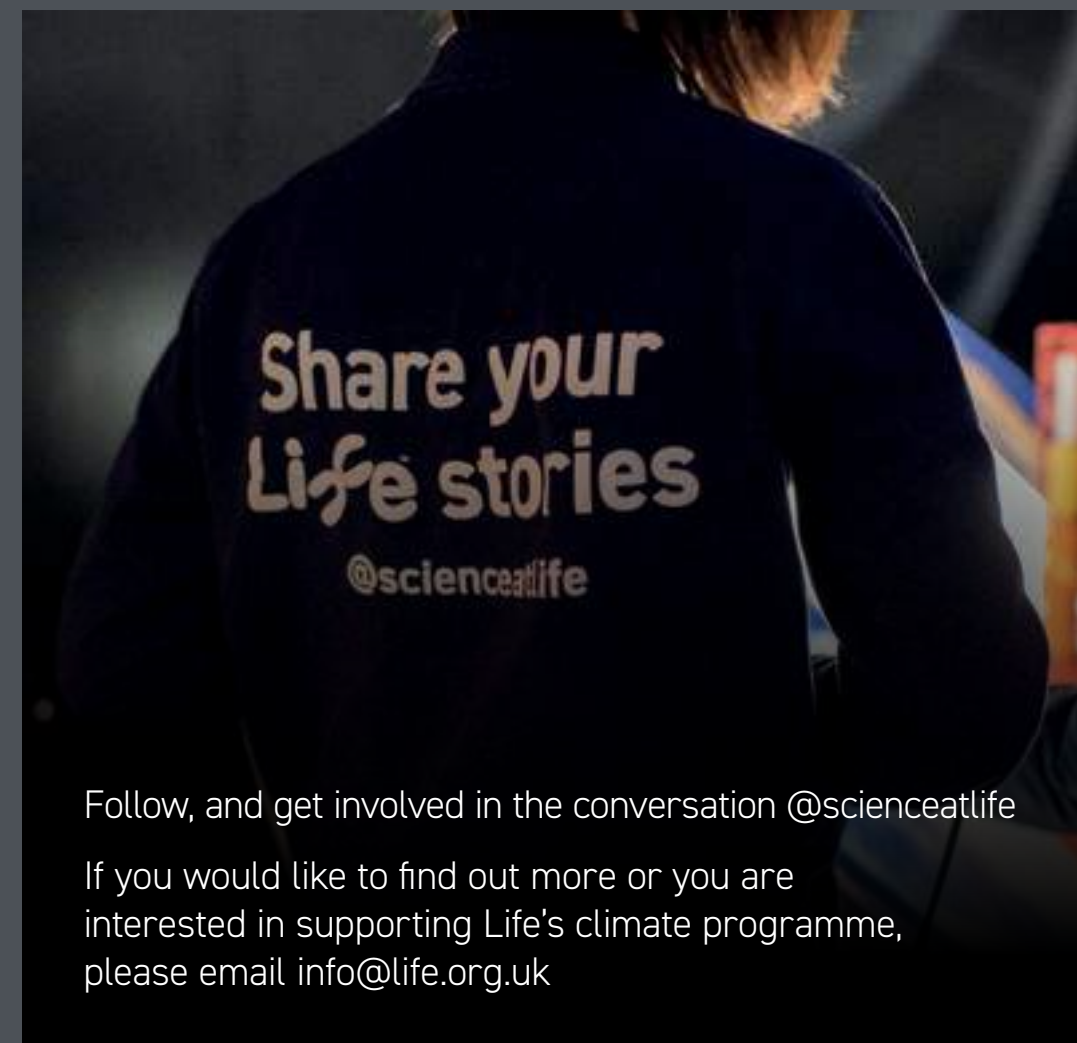
Hayley Fowler, Professor of Climate Change Impacts at Newcastle University

“I want you to act as if the house is on fire, because it is.”

Greta Thunberg, Swedish Activist

Life has already committed to the following:

- Adopting green energy
- LED replacement lighting (working in partnership with Newcastle University)
- Encouraging adoption of sustainable transport options through increasing electric vehicle charging points (currently there are 12 on site); improving cycle facilities and being part of the Northeast Better Health at Work scheme which includes promoting walking to work.
- Using recyclable materials where possible
- Improved recycling facilities



Follow, and get involved in the conversation @scienceatlife

If you would like to find out more or you are interested in supporting Life's climate programme, please email info@life.org.uk



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