

Science Day Programme

12.00pm – 4.00pm: Exhibitors in the Big Top and on the field

12.00pm – 4.00pm: Wonder Dome Planetarium shows in the Steyning Centre

12.00: Show 1, ages 7 – 10

12:45: Show 2, ages 7 - 10

1.45: Show 3, ages 7 – 10

2.30: Show 4, ages 11+

3.30: Show 5, subject to demand

**4.30pm – 5.30pm: Talk “AI – What is it all about?”,
Professor Thomas Nowotny (Co-Director of
Sussex AI, University of Sussex)
in the Big Top**

Science Day Programme

Exhibitors

In the Big Top

Engineering & Technology

<p><u>Rampion Offshore Wind</u></p> <p>Kelvin Macleod, Assistant Stakeholder Manager</p>	<p>Explore how wind turbines work and how the power generated varies with wind speed and the design of the blades.</p>
<p><u>Rampion 2</u></p> <p>Vicky Portwain, Land Transaction Manager</p> <p>George Cottell, Consents Manager</p>	<p>Don a 360-degree Virtual Reality headset and take a trip on board a crew-transfer vessel from Newhaven out to the wind farm and see the turbines up close.</p> <p>Do you have questions about Rampion 2 which will add 1.2 gigawatts of generation to the current 400 megawatts? Review the proposals and talk to the people involved.</p>
<p><u>Institution of Engineering and Technology (IET)</u></p> <p>Dr David James</p>	<p>Build a LED torch, make some simple electrical circuits and find out about the technology behind renewable energy.</p>
<p><u>Brighton Energy Co-operative</u></p> <p>Atlanta Cook, Communications & Community Fund Manager</p>	<p>Brighton Energy Cooperative (BEC) has raised over £5 million in 15 years and installed more than 6 megawatts of community-owned roof-mounted solar arrays across Sussex.</p> <p>Through their Solar Education Programme BEC assist teachers in educating children about solar energy and the carbon cycle.</p>

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Physical Sciences

<p><u>The Creative Science Centre</u></p> <p>Dr Jonathan Hare</p>	<p>Jonathan Hare was part of a team led by Professor Harry Kroto at University of Sussex. Harry was a joint-recipient of the Nobel Prize for Chemistry in 1996. The prize was for discovering Buckminsterfullerene, the 'football molecule'. Jonathan will explain the significance of the discovery and help you build a model of the molecule to take home and keep.</p>
<p><u>Sussex Centre for Quantum Technologies</u></p> <p>Caleb Burhan, Graduate student (PhD)</p>	<p>The University of Sussex is a leading institution in the field of Quantum Computing. How will this revolutionary technology impact everyday life? The experts will explain all and show you some interactive Physics demonstrations.</p>

Ecology

<p><u>Nature Sense, University of Sussex</u></p> <p>Dr James Whitehead, Postdoctoral Ecologist</p>	<p>Nature Sense aim to establish a South Coast network of environmental monitoring stations as part of our society's wider effort of transitioning to a sustainable landscape. Citizen Science forms part of this work and you too can be part of it.</p> <p>How good are you at identifying birdsong? Come and take part in the 'What's that bird?' game using recordings of birds from the Steyning area.</p>
<p><u>Sussex Dolphin Project</u></p> <p>Amber Cherrington, Project Support Officer</p>	<p>Launched in 2018 Sussex Dolphin Project is committed to understanding and protecting local dolphin species through research, awareness and education. Citizen Science plays a big part in this work.</p> <p>Come and find out about the cetaceans living in Sussex seas and view spectacular footage of dolphins taken from local boat owners just off the coast.</p>

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Human Sciences

<p><u>School of Psychology, University of Sussex</u></p> <p>Dr Saber Sotoodeh, Postdoc Researcher</p>	<p>The human motor system is complex (witness the sometimes hilarious attempts to create humanoid robots!). Come and have a go at an interactive game designed to show just how complex humans are. A poster presentation will show how the school's recent 'Baby Grow' study focused on early motor development and its associations with later social and communication development.</p>
<p><u>School of Psychology, University of Sussex</u></p> <p>Dr Marianne Paisley, Doctoral Tutor</p>	<p>Infrared thermography (IRT) is used by researchers to measure physiological changes associated with arousal and stress, not just in humans but also chimpanzees. As a non-invasive tool it can support animal welfare by allowing researchers to measure physiological responses without restraint or invasive sampling. Come and see your own live 'heat signature' through a handheld infrared thermal camera and see how temperature varies across different parts of your face and body in real time.</p>

On the Field

<p><u>Worthing Astronomers</u></p> <p>Paul Ibbitson</p>	<p>Astronomy doesn't just take place at night! In the grand scheme of the Universe the Sun is a very average, normal star that most of us take for granted. However, look at it through a telescope fitted with special filters and a fascinating, dynamic sight awaits. Worthing Astronomers will have several telescopes set up for you to look through in safety and enjoy the view.</p>
<p><u>Festival Volunteers</u></p>	<p>Follow our Solar System trail between the Planetarium, across Feltcher's Croft to Vicarage Lane. Along the way, at their scaled relative positions, you will find information posts about the planets and comets.</p>