

EXCEL LONDON & ONLINE | 8-9 OCT 2022 | SCHOOLS' DAY 7 OCT

# New Scientist Live



## THE WORLD'S GREATEST FESTIVAL OF IDEAS & DISCOVERIES

TALKS PROGRAMME AND SHOW MAP



FEATURE PARTNERS

SCHOOLS' DAY SPONSOR

MEDIA PARTNER

CHARITY PARTNER

# ENGAGE STAGE

## TIMETABLE

### FRIDAY 7 OCTOBER

10.45 - 11.35

#### HOW I HACKED MY WAY INTO SPACE

Join J Spooner of the Unlimited Space Agency as they tell the inspirational story of a 42 year old person's creative adventure to hack their way into space.

11.45 - 12.05

#### CAREERS OF THE FUTURE

Join Beth Knight, Head of 'Amazon in the Community' for Europe, to explore the huge range of careers in STEM that will power the economy of tomorrow.

12.15 - 12.45

#### SPACE SHED: MEET THE SCIENTIST

J Spooner returns with a mystery guest in the space shed for more interactive, intergalactic fun.

13.15 - 14.00

#### NEW SCIENTIST STAFF: HOW TO BE A SCIENCE JOURNALIST

New Scientist journalists take to the stage to answer all of your burning questions about science and the media.

14.15 - 15.00

#### SPACE SHED: AMAZING ASTRONOMY WITH JEN GUPTA

Join Jen Gupta and J Spooner in the Space Shed for a lively conversation about all things astronomical.

### SATURDAY 8 OCTOBER

10.45 - 11.30

#### HOW I HACKED MY WAY INTO SPACE

Join J Spooner of the Unlimited Space Agency as they tell the inspirational story of a 42 year old person's creative adventure to hack their way into space.

11.40 - 12.00

#### NEGLECTED TROPICAL DISEASES AND WHERE TO FIND THEM

Join Poppy Lambertson, in conversation with host Emily Bates, to find out how her and her team are working to control neglected tropical diseases.

12.00 - 12.40

#### EXPLORING DEEP OCEANS WITH GHISLAIN BARDOUT

Join ocean explorer Ghislain Bardout, in conversation with host Emily Bates, to hear about how we all have a part to play in preserving our seas.

12.40 - 13.00

#### OUTSMARTING HEART DISEASE

Join experts from the British Heart Foundation to hear how the latest research is tackling heart disease.

13.25 - 14.10

#### LIVE FROM THE SPACE SHED: BRAINS WITH EMMA BYRNE

J Spooner returns with special guest Emma Byrne for a chat about all things cerebral.

14.20 - 14.40

#### GILLIAN FORRESTER: WHY ARE HUMANS THE ONLY TALKING APES?

Cognitive scientist Gillian Forrester discusses her pioneering research into how humans learnt to talk.

14.40 - 15.00

#### THE WONDER OF DOGS WITH JULES HOWARD

Join author and dog cognition expert Jules Howard, in conversation with Emily Bates, for a lively chat about all things canine.

15.00 - 15.20

#### HOW TO BECOME A YOUTUBE SCIENTIST WITH DR SIMON CLARK

Join host Emily Bates as she chats to physicist Simon Clark about being one of the UK's most popular science YouTubers.

16.00 - 17.00

#### NEW SCIENTIST JOURNALISTS: ASK US ANYTHING!

Put your questions to our team of amazing science journalists.

### SUNDAY 9 OCTOBER

10.45 - 11.30

#### LIVE FROM THE SPACE SHED

J Spooner returns with a mystery guest in the space shed for more interactive, intergalactic fun.

11.40 - 12.20

#### FECAL MICROBIOTA TRANSPLANTATION: FROM BENCH TO BEDSIDE AND BEYOND

Join Blair Merrick as he explains how transplanting stools from healthy to ill people is a potentially lifesaving treatment for a host of conditions.

12.20 - 12.40

#### TALKING TOXOPLASMA: THE PARASITE THAT GETS EVERYWHERE!

Join Lilach Sheiner and Clare Harding as they reveal the amazing life of *Toxoplasma gondii*.

12.40 - 13.00

#### OUTSMARTING HEART DISEASE

Join experts from the British Heart Foundation to hear how the latest research is tackling heart disease.

13.25 - 14.10

#### MAPPING THE UNIVERSE WITH ALEXANDRA AMON

Join J Spooner as they get cosmological with amazing astrophysicist Alexandra Amon.

14.20 - 14.40

#### GEOLOGY ROCKS, WITH CHRIS JACKSON

Join geologist Chris Jackson to explore why we should look underground to understand our future.

15.00 - 16.00

#### NEW SCIENTIST JOURNALISTS: ASK US ANYTHING!

Put your questions to our team of amazing science journalists.

16.00 - 17.00

#### RPGEEKS: INTERACTIVE SCIENCE D&D

Join our team of science improvisors on an imaginative interactive adventure.



# FUTURE STAGE

## TIMETABLE

### FRIDAY 7 OCTOBER

10.45 - 11.25

#### **WHY ESPORTS ARE YOUR FUTURE (KS3/4)**

Andy Miah outlines how you can take your gaming to the next level with esports and find your future.

11.45 - 12.25

#### **"I WASN'T EXPECTING THAT!" - WHEN MATHS MEETS PSYCHOLOGY (KS4)**

Rob Eastaway reveals some of his favourite mathematical games, puzzles and tricks, which are sure to leave you shocked.

13.00 - 13.40

#### **DR KARL'S SCIENCE SPECTACULAR (KS4)**

Dr Karl will guide students through five future career paths and four messages of good hope, all in 40 minutes!

14.00 - 14.40

#### **THE EVOLUTION OF VIDEOGAMES (KS3/4)**

Bring a smartphone to play along as Steve McNeil and Rob Sedgebeer present an interactive history of videogames.

### SATURDAY 8 OCTOBER

10.45 - 11.35

#### **AN OCEAN OF SALT**

Helen Czerski will explore the great stories of our ocean told through salt.

11.55 - 12.45

#### **THE PATTERN SEEKERS**

Simon Baron-Cohen puts forward a bold new theory about humans' remarkable ability to recognise patterns.

13.25 - 14.15

#### **MAKING SENSE OF SCREEN TIME**

Pete Etchells will uncover what we really know about the impact of screen time on our mental health, behaviour and sleep.

14.35 - 15.25

#### **HOW TO SPEND A TRILLION DOLLARS**

Rowan Hooper conducts the ultimate thought experiment but with a serious message.

15.45 - 16.35

#### **THE BIGGEST NUMBER IN THE WORLD**

Join Agnijo Banerjee on an epic quest for unfathomably large numbers.

### SUNDAY 9 OCTOBER

10.45 - 11.35

#### **THE FUTURE OF UK SCIENCE AND INNOVATION**

Sir Patrick Vallance outlines the case for why science in government matters.

11.55 - 12.45

#### **A WORLD-RECORD BREAKING ATTEMPT TO CREATE STAR POWER**

Joe Miles will tell the story of the world's largest operating fusion energy machine, the Joint European Torus.

13.25 - 14.15

#### **THE GEOLOGICAL RECORD OF CLIMATE CHANGE**

Chris Jackson will look at how the geological record of climate change can help us better understand our present and future climate.

14.35 - 15.25

#### **MATHEMATICS IS OUR SUPERPOWER**

Junaid Mubeen will take us on a fascinating exploration of a surprising advantage that humans have over artificially intelligent robots.

15.45 - 16.35

#### **CAN SCIENCE SAVE THE WORLD?**

Lord Rees will argue that science is not just for scientists. We all need to be involved in the decisions which will shape our future.

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# MIND AND BODY STAGE

## TIMETABLE

### FRIDAY 7 OCTOBER

10.30 - 11.10

#### **HACK YOUR BRAIN (KS3/4)**

Join Alina Ivan from Braintastic! Science for a whirlwind introduction to the brain and nervous system.

11.30 - 12.10

#### **HOW I BECAME A YOUTUBE SCIENTIST (KS4)**

Physicist and YouTuber Dr Simon Clark explains how he ended up with his strange career.

12.45 - 13.25

#### **GLASS HALF FULL: THE POSITIVES OF FIVE ANNOYING THINGS (KS2/3)**

Sophie Ward will use science to put a positive spin on some of the most irritating stuff in the world.

13.45 - 14.25

#### **MASTERING MEMORY (KS4)**

Alina Ivan will use neuroscience to boost your learning and design more effective revision plans.

### SATURDAY 8 OCTOBER

10.45 - 11.35

#### **THE DARK HISTORY AND TROUBLING PRESENT OF EUGENICS**

Adam Rutherford will tell the story of the pseudoscience of eugenics.

11.55 - 12.45

#### **A BRIEF HISTORY OF YOUR BRAIN**

Emma Byrne reveals how our brains change over the course of childhood and beyond.

13.25 - 14.15

#### **THE SECRET BODY**

Daniel Davis will discuss the ground-breaking scientific quest to understand the human immune system.

14.35 - 15.25

#### **BELIEVING THE UNBELIEVABLE: THE SCIENCE OF PARANOIA AND CONSPIRACY THINKING**

Nichola Raihani presents an evolutionary perspective to illuminate the logic - and even the benefits - of paranoia.

15.45 - 16.35

#### **REBEL CELL: A NEW VIEW OF AN OLD DISEASE**

Kat Arney will take us to the dawn of life on planet Earth right up to the present day to get to the heart of what cancer really is.

### SUNDAY 9 OCTOBER

10.45 - 11.35

#### **ULTRA-PROCESSED FOOD**

Chris and Xand van Tulleken reveal the truth about what ultra-processed foods do to our bodies.

11.55 - 12.45

#### **CAN FISH COUNT?**

Brian Butterworth will propose a scientific definition of counting and describe evidence showing how animals from fish to insects can count.

13.25 - 14.15

#### **THE HUMAN BODY: DESIGN DISASTER**

Cardiologist and comedian Dr Rohin Francis will explore just some of the myriad ways there's nothing Intelligent about our Design.

14.35 - 15.25

#### **DNA FAMILY SECRETS**

Turi King will chart the rise in the use of DNA in genealogy and forensics for everything from tracing long lost family members to catching criminals.

15.45 - 16.35

#### **THE BODY AND SELF-CONSCIOUSNESS**

Moheb Costandi uncovers the latest research into how our brains perceive our bodies.



# OUR PLANET STAGE

## TIMETABLE

### FRIDAY 7 OCTOBER

10.45 - 11.25

#### **PHYSICIST IN THE WILD (KS4)**

Helen Czerski will share the science she does as a physicist studying the natural world.

11.40 - 12.50

#### **PERPETUAL PLANET: HEROES OF THE OCEANS FILM SCREENING**

Join world-famous ocean explorer Ghislain Bardout as he introduces the 'Heroes of the Oceans' documentary and answers your questions afterwards.

13.00 - 13.40

#### **WHY WASPS MATTER (KS4)**

Seirian Sumner guides you on a journey into the secret world of wasps guaranteed to blow your mind.

14.00 - 14.40

#### **WHEN T. REX BITES! (KS3/4)**

David Hone will reveal the science behind most dangerous terrestrial predator of all time.

### SATURDAY 8 OCTOBER

10.45 - 11.35

#### **HAND TO MOUTH: THE LANGUAGE PUZZLE**

Gillian Forrester will explore a leading theory behind the emergence of modern human language.

11.55 - 12.45

#### **NOMAD CENTURY: THE GREAT CLIMATE UPHEAVAL**

Gaia Vince will describe how we can use managed climate migration for our survival while we restore the planet's habitability.

13.25 - 14.15

#### **WONDERDOG! HOW WE CAME TO KNOW THAT DOGS ARE SO SMART**

What do dogs really think of us? Jules Howard will reveal the latest research into 'dognition'.

14.35 - 15.25

#### **WHY WASPS MATTER**

Seirian Sumner will journey into the secret world of wasps, guaranteed to blow your mind.

15.45 - 16.35

#### **THE SECRET LIVES OF ANIMALS**

Lizzie Daly takes you on a journey following in the footprints of wildlife from across the world.

### SUNDAY 9 OCTOBER

10.45 - 11.35

#### **THE DEEP CHEMISTRY OF LIFE AND DEATH**

Nick Lane will describe the Krebs cycle - a series of reactions that transform inorganic molecules into the building blocks of life.

11.55 - 12.45

#### **EXPLORING THE DEEP SEA**

Marine biologist Helen Scales will tell the story of our relationship with the deep sea.

13.25 - 14.15

#### **IT'S NOT EASY BEING GREEN**

Julia Cooke and Yoseph Araya reveal fascinating stories about how plants survive, from the poles to the tropics and the seas.

14.35 - 15.25

#### **THE EARTH: A BIOGRAPHY OF A LIVING PLANET**

Elsa Panciroli explores some of the incredible organisms that have lived and continue to thrive in our world.

15.45 - 16.35

#### **NEANDERTHALS: EXPLORING COMPLEX MINDS**

Rebecca Wragg Sykes will reveal the latest research into Neanderthals; how they lived, thought and died.



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# UNIVERSE STAGE

## TIMETABLE

### FRIDAY 7 OCTOBER

10.30 - 11.10  
**DELIGHTFUL DISCOVERIES  
AND EXCELLENT  
ACCIDENTS (KS2/3)**

In this explosive show, Dan Plane explores how many world-changing discoveries were actually made by accident.

11.30 - 12.10  
**SEEING THE INVISIBLE  
UNIVERSE (KS4)**

Jen Gupta explores the invisible Universe and shows how astronomers manipulate light to turn the entire cosmos into their laboratories.

12.45 - 13.25  
**BANG! THE SCIENCE OF  
EXPLOSIONS (KS2-4)**

Stefan Gates presents a physics spectacular packed with explosions.

14.00 - 14.40  
**OUR PLACE IN THE  
UNIVERSE (KS3/4)**

Alexandra Amon will guide us through what's out there in the Universe and how astrophysicists are getting ready to learn more.

### SATURDAY 8 OCTOBER

10.45 - 11.35  
**THE HIDDEN SCIENCE  
OF WEATHER, CLIMATE  
CHANGE AND THE AIR THAT  
SURROUNDS US**

Simon Clark introduces the fascinating story of our atmosphere.

11.55 - 12.45  
**THE JOY OF ABSTRACTION**

Eugenia Cheng will show how even high-level abstract maths can be accessible, open-ended, and joyful.

13.25 - 14.15  
**THE HIDDEN UNIVERSE**

Emma Osborne will take you on a gravitational wave journey from creation to detection, and the remarkable discoveries that are beginning to reveal the hidden universe.

14.35 - 15.25  
**ELUSIVE: THE STORY  
OF PETER HIGGS AND  
HIS BOSON**

Frank Close will examine the life of Peter Higgs, and his eponymous boson.

15.45 - 16.35  
**BLACK HOLES**

Jeff Forshaw reveals the complex quantum problems that emerge when trying to track information flowing in and out of black holes.

### SUNDAY 9 OCTOBER

10.45 - 11.35  
**THE DARK UNIVERSE:  
SEEING THE INVISIBLE**

Alexandra Amon will look at why cosmology 'needs' dark matter and how astrophysicists are learning more about what it is.

11.55 - 12.45  
**A NEW FORCE OF NATURE?**

Harry Cliff will reveal the growing evidence for a new force of nature, through recent data from the LHC and Fermilab.

13.25 - 14.15  
**EXPLORING  
OCEAN WORLDS**

In this talk Emma Bunce will explore the methods for detecting the oceans on the icy moons in our solar system.

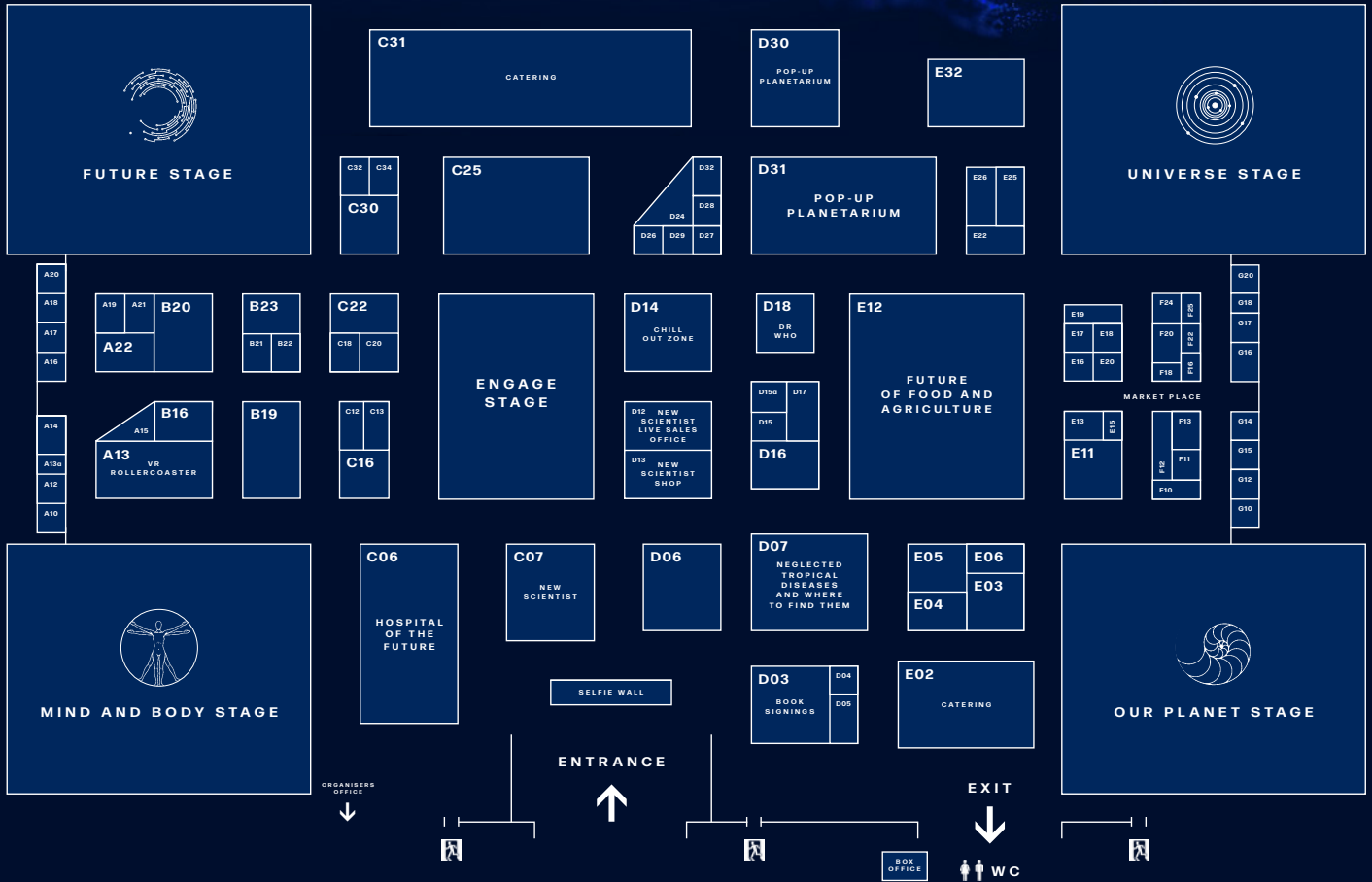
14.35 - 15.25  
**THE SCIENCE OF  
EXPLODING STARS**

Or Graur will be your guide to the awe-inspiring astronomical phenomena of supernovae.

15.45 - 16.35  
**PHYSICS EXPERIMENTS  
THAT CHANGED THE  
WORLD**

Suzie Sheehy will uncover how our curiosity-driven determination to understand the microscopic brought about a revolution in physics.

# SHOW MAP



Acoustics Network	D32	HYPED Technology Edinburgh	A20	R&R	G15
AGCO	E12	Immersive Dome Experiences Ltd	D30/D31	Rainforest Concern	C12
Association for Nutrition	A12	Imperial College London - Dept of Mechanical Engineering	E22	Rothamsted Research	D16
Birmingham City University	B16	Interesting Engineering	A22	Science Animated	D28
Blackwells	D03	Kingston University	E32	Society of Radiological Protection	D17
British Astronomical Association	F13	Kuhn Farm Machinery	E12	Steampunk glass	F20
British Dietetic Association	A16	Martin-Baker	B23	Symprove Ltd	A10
British Gliding Association	E11	Middlesex University	C25/A13	Technicians: We Make The Difference	B20
British Heart Foundation	A19	MIT Press	E16	TEDI-London	C32
Celestron	E25	Molymod	G20	The Herbtender	F11
Cephtactics	E05	MSG Meteorites	E15	UCL	B21
Discovery Tours	C07	National Biofilms Innovation Centre	D29	UKAEA	B19
Dogs Trust	E18	National Farmers' Union	E12	UKCRIC	C18
Dr. Who World of Wonder	D18	NCAS	E13	Unboxed	C16
Education Harbour	F25	New Scientist	C07	University of Edinburgh	B22
EPCC	C20	NIHR HPRUs and MRC Centre in Environment and Health	C22	University Press Group	F24
EPSRC Centre for Doctoral Training in Water Infrastructure and Resilience - WIRe	D04	Nuclear Institute	D06	Wellcome Centre for Integrative Parasitology	D07
Eryka Isaak	G16	Octagon Studio	A17	Wessex Archaeology	C34
Farmers Weekly	E12	Oh So Science	E17	Women in Engineering Society of the University of Sheffield	A21
Frog Creative	D05	Olive Ridley Project	D15	Wonderpax	F18
Galaxy on Glass	F12	The Occupational Research Society	D26	Woodland Trust	F16
Greenpeace	A18	Plantlife	D27	WWF	G12
Harvard University Press	G10	Practical Action	A13a	Yale University Press	G18
Hello Fresh	G14	Quantum City	C30	Zaha Hadid Architects	E26
History Hit	E20	Quekett Microscopical Club	F22		
Hospital of the Future	C06				