

# Full STEAM ahead Science. Technology. Engineering. Arts. Maths European Researchers' Night

# Friday 29 September 2017 University of Huddersfield 4.00pm-9.00pm

Your guide to the free activities, expert talks, workshops and experiments taking place in the afternoon and evening.





# Keep up to date with the event:

 WeLoveResearch #researchersnight
European Researchers' Night www.hud.ac.uk/steam

Marie Skłodowska-Curie: an inspiration to follow. This European Researchers' Night project is funded by the European Commission under the Marie Skłodowska-Curie actions. This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 722929.





# WELCOME

Welcome to Full STEAM Ahead – your opportunity to meet our researchers and discover more about the exciting world of research here at the University of Huddersfield.

Last year around 3,000 visitors came to this event and we're extremely honoured to be one of the few institutions in the UK, and the only one in Yorkshire, to be asked to host a European Researchers' Night event again. We are joining over 250 cities all over Europe celebrating this event on 29 September.

The night provides a chance to go behind the scenes and explore how research impacts on our everyday lives with handson workshops, lively demonstrations and inspiring talks by world-class researchers. You can discover everything, from virtual worlds to 3D printing, forensic science to railway locomotives, and synth building to super rats!

We hope you thoroughly enjoy the evening and feel inspired by our University.

Bob Cryan

Professor Bob Cryan CBE DL CCMI FREng Vice-Chancellor and Chief Executive



# **Useful information**

#### Welcome points

Please visit us at the Welcome and Information Point to collect a programme before you get started. This is located in Student Central at the iPoint desk. Our friendly team of student ambassadors and staff volunteers will be happy to answer guestions and offer assistance.

For groups of 10+ please make your way to the Oastler Building foyer, where our friendly student ambassador team will be pleased to greet you and assist you in finding your way around.

#### Food and drink

We have a range of food and drink outlets open until 9.00pm. Please see our Campus Map (p6-7) for details of where you can eat and what is available.

#### Photography and filming

Photography and filming will take place at this event. If you attend this event you may be filmed and have your picture taken. By attending this event, you are giving consent to the organisers and the European Commission to film, photograph, and to make sound recordings of you, and to use such recordings and images at their discretion. You hereby release the organisers and the European Commission from any liability in connection with the above. If you do not wish to have your photograph/video taken, please inform a member of the Welcome and Information Point team.

#### Lost people, Lost property and First Aid

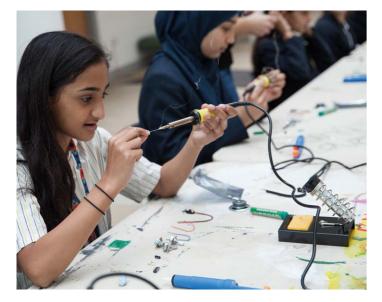
Lost people, Lost property and First Aid are located at the University Reception, in the Harold Wilson entrance area.

#### What's on

All activities are based on STEAM:

Science echnology ngineering rts Mathematics

Please note that most activities have limited capacity and admission will be on a first-come, first-served basis (with the exception of pre-booked sessions). Please ensure you arrive early to avoid disappointment.



# **Creative Arts Building**

#### Synth Building workshop 🗊 🚯

#### 4.30pm-6.00pm and 6.30pm-8.00pm (must be pre-booked) Duration: 90 minutes Age recommendation: Girls aged 11+

Last year this workshop was very popular, so we decided to run it again! Learn basic electronics and solder a sound making printed circuit board with Dr Liz Dobson and synth developer and composer Nina Richards. Supported by the Yorkshire Sound Women Network this workshop encourages girls to try electronics and music/sound technology. For more information see this short film about the workshop http://tinyurl.com/noisetoy.

#### Inside Sound 🗊 🔕

4.00pm-7.00pm – drop in session Duration: 10 minutes Age recommendation: All

What is it like to be inside sound? Enter the world of music technology with Professor Michael Clarke and Dr Frédéric Dufeu, as we invite you into the SPIRAL – the University's Spatialisation and Interactive Research Lab. Explore the nature of sound and sonic characteristics in their most intimate details. You will be able to explore sound by navigating interactive sonograms in the SPIRAL's advanced multi-channel environment.

#### Balloon Game 🙆 🔞

4.00pm-8.30pm – drop in sessions Duration: 10 minutes Age recommendation: 5+

Join postgraduate research student Parisa Azar to guess the carbon footprint of different activities displayed on cards and use helium balloons to demonstrate them. Depending on the height of the balloons you will see which one of your day to day activities has the biggest carbon footprint.

# Let's Play Vinyl 🗊 🔕

Times: 4.45pm-5.45pm and 6.15pm-7.15pm (must be pre-booked) Duration: 1 hour Age recommendation: 5-11 years

This is an opportunity to discover the magic of vinyl records with Sound System Culture, Professor Paul Ward and visiting Research Fellow Mandeep Samra from Let's Go Yorkshire. You can have a go at using a 1960's Dansette record player and play vinyl records on a turntable. Use your imagination to create colourful decorations using vinyl records.

# Journalism and Media Building

Hands-on Radio Presenting 🔕

5.00pm-5.45pm, 6.00pm-6.45pm and 7.00pm-7.45pm (must be pre-booked) Duration: 45 minutes Age recommendation: 13+

Have you ever wanted to have a go at being a radio presenter? This is your opportunity to read and record a news bulletin and find out all about the history of radio with Dr Martin Cooper, by exploring the University's research into this fascinating area.

# Oastler Building

# Lost Frontiers **S** 🗊 🔕

4.00pm-8.30pm – drop in session Duration: 15 minutes Age recommendation: 5+

Join Professor Vince Gaffney from Bradford University and try an augmented reality sandbox to create your own landscape. Learn about how this EU funded project uses cutting-edge techniques to explore drowned landscapes. Experience a changing world and see how hunter-gatherers react to variations in climate and conditions.

# Wildlife Crimes on Trial 🔕

#### 5.00pm-5.45pm (must be pre-booked) 6.15pm-7.00pm and 7.30pm-8.15pm – drop in sessions Duration: 45 minutes Age recommendation: All

What do you think about the illegal trade in endangered species? We want you to judge wildlife crimes and vote on what you think is the right sentence to fit the crime. Melanie Flynn will share her research with the WWF – World Wildlife Fund – which explores the illegal trade of animals such as rhinos, tigers and pangolins.



# Billy the Burglar 🗊 🔕

6.30pm-7.30pm and 7.30pm-8.30pm (must be pre-booked) Duration: 1 hour Age recommendation: 7-10 years

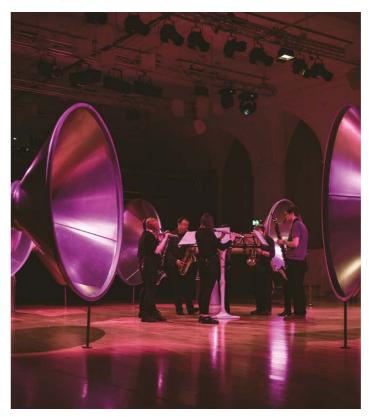
Come along and join criminologist Dr Leanne Monchuk, West Yorkshire Police's Force Crime Prevention Officer Chris Joyce and our University Police Officer PC Jackson, to try and stop Billy the Burglar! We'll be looking at a house with lots of insecurities and trying to make it more secure. How many insecurities can you spot? How would you make the house more secure?



# Vortex 🕄 🗊 🕃 🔕 🔕

4.00pm-6.30pm – drop in exhibition and performance at 7.00pm-8.00pm Age recommendation: All

Experience a sculptural sound installation on a grand scale, with live music from IOU and University of Huddersfield musicians. Engineered by Professor Rakesh Mishra, the performance uses large steel air-ducts and cones to produce sound inspired by vortex rings travelling through the atmosphere.



# The Sir George Buckley Lecture Theatre

#### Would I lie to you? 6

7.00pm-8.00pm – drop in session Duration: 1 hour Age recommendation: 15+

Are you as good at spotting a liar as you think you are? Put your lie detecting skills to the test with our fun and interactive activity hosted by Dr Chris Street, to explore the ways people lie and how to spot them.

# **Joseph Priestley Building**

#### Strawberry Mess S

4.30pm-7.30pm – drop in session Duration: 30-40 minutes Age recommendation: All

Have you ever wanted to know how to extract DNA? Join Dr Francesca Gandini and discover how to isolate DNA from strawberries using simple everyday items you can find at home.

#### From Atoms to Crystals to Proteins S

4.00pm-8.30pm – drop in session Duration: 10 minutes Age recommendation: 11+

Get up close and personal with crystals by looking at them under the microscope and having a go at atomic model building. Dr Chris Cooper and Dr Richard Bingham will show you how molecular models and crystals can help to uncover how proteins in cells can be used to develop drugs.



#### Hidden Pond Life **S**

4.00pm-8.30pm – drop in sessions Duration: 10 minutes Age recommendation: 8+

Explore pond water under the microscope and try to identify different microbes, with Dr Hamid Merchant. You will observe the different organisms in pond water and learn more about how they interact with one another. Do you know what predation, competition and mutualism are? Well you will after this workshop!

#### Cornering Cancer (S)

#### 4.00pm-8.30pm – drop in sessions Duration: 15 minutes Age recommendation: All

What does a cancer cell look like? Get creative and help us create a model of cancer from balloons or Play-doh! Look at cancer cells down the microscope with Dr Simon Allison and postgraduate cancer researchers Hollie Griffiths and Makhosi Mgombane-Macaulay. Learn about cancers that can affect children, our breast cancer research and how our research is working towards improving treatments.

#### World of Microbes (S)

#### 4.00pm-8.30pm – drop in sessions Duration: 20 minutes Age recommendation: All

The good, the bad and the ugly! Discover a whole new world of micro-organisms with postgraduate research student Sophie Glossop, from bread to your belly and everything in between.

#### Rise of the Super Rats 🚯

4.00pm-8.30pm – drop in sessions Duration: 15-30 minutes Age recommendation: All

Super rats have been in the news headlines over the last few years with Huddersfield research featuring in TV programs and newspapers.

Come and discover the facts and fiction about super rats with Dr Dougie Clarke and postgraduate research student Zoe Hollis.



# **Buildings**

3M Buckley Innovation Centre (BIC)	15	Heri
Bridge House	35	Insti
Brontë Lecture Theatres (BL)	03	Jose
Charles Sikes Building (CS)	09	Jour
Cockcroft Building (CO)	23	Loc
Creative Arts Building (CA)	31	Oas
Diamond Jubilee Lecture Theatre (CS1/01)	09	Qua
Edith Key Building (EK)	18	Que
Firth Street Depot (FD)	36	Que
Harold Wilson Building (HW)	02	Que
Haslett Building (HA)	14	Ran

Heritage Quay
Institute of Railway Research
Joseph Priestley Building (JP)
Journalism and Media Building (JM)
Lockside Building (LS)
Oastler Building (OA)
Quayside
Queen St. Building (QSB)
Queen St. South Annexe (QSA)
Queen St. Studios (QS)
Ramsden Building (R)
Rambden ballarig (R)

- Researcher Hub (RH) Schwann Building (SB)
- Sir John Ramsden Court (JR)
- Sir Patrick Stewart Building (PS)
  - Spärck Jones Building (SJ)

What new discoveries will you make?

Fill in the blank circles by collecting

around the campus. Collect them all

and hand in to one of our event staff

our Prize Draw to win a £20 Amazon

for your chance to be entered into

voucher.

15 different stickers as you move

Student Central (SC)

14

14

07

04

24

29

27

34

16

18

07

33

21 16

Exit only

under construction







# **Campus Map**

Queensgate, Huddersfield, HD1 3DH

Main Entrance and Exit

04

W Welcome and Information points

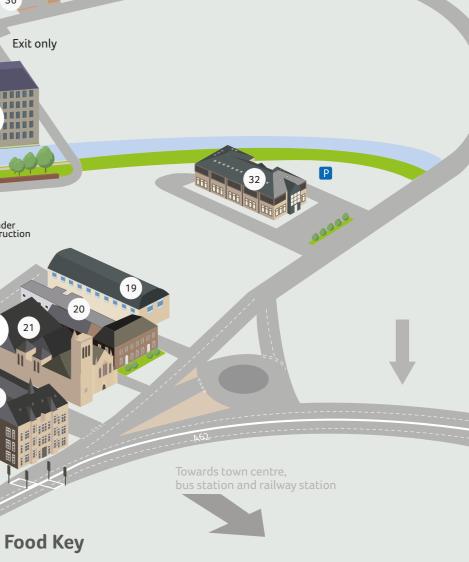
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An accessible route map for navigating around the campus, as well as details on getting to the University are both available on our website at: www.hud.ac.uk/about/maps/

There will be no parking available on campus, with the exception of a limited number of disabled parking spaces for blue badge holders. Please note that these should be booked in advance to avoid disappointment.

6

St. Pauls Hall (PLG)	26
Technology Building (T)	08
The Sir George Buckley Lecture Theatre (RH)	18
University Health Centre	UHC
University Reception	01



Pizza Neo in Student Central will be available until 8.30pm and Starbucks, located inside Student Central, will be open until 9.00pm

Charles Sikes Building will be open for refreshments, sandwiches and snacks until 8.30pm

Oastler Coffee Cart will be open for light refreshments and snacks until 8.30pm

University Square will offer food including nachos and cheese, burgers, hotdogs, vegan Thai curry and Whipsmith's liquid nitrogen ice cream from 4.30pm-9.00pm.

Û

#### Take my Breath Away 🚯 🔒 🔒

4.00pm-8.30pm - drop in sessions **Duration: 30 minutes** Age recommendation: All\*

\*Under 16s must be accompanied by an adult. Please note that the simulation asthma attack experience is unsuitable for asthma sufferers.

Come and explore the Pharmaceutics laboratory where you will get to meet our lab technicians, experience what it is like to have asthma and find out more about the work researchers are doing at Huddersfield. If you use an inhaler, why not take part in a test to see if you are getting the most out of your device? You can also take part in a range of activities, including a simulated asthma attack, find out how old your lungs are, an interactive smart screen, a researchers' display, powder flow and a 'make and do' section.



#### Brontë Lecture Theatres

#### **Archaeogenetics Sandpit** and Human Evolution Tree S 🙆

5.00pm-6.30pm and 7.00pm-8.30pm - drop in sessions **Duration: 30 minutes** Age recommendation: 5-10 years

Meet Dr Maria Pala and Dr Ceiridwen Edwards, who are researchers in Archaeogenetics. Find hidden bones in a sand box and identify the species by using large posters of the skeletons to look at similarities across diverse species. Take part in a fun quiz on extinct human species and try to place posters of different extinct human skeletons on a family tree.

#### Dinosaur Experience 🔂 🙆

4.00pm-8.30pm – drop in sessions Age recommendation: All



Get close to genuine and replica dinosaur fossils with Dinostar, including the bones of a Triceratops and a real dinosaur egg. Create your own fossil 'brass' rubbing and challenge yourself not to be scared by the Allosaurus skull with its scissor sharp teeth!

# Colour Chemistry 🔂 🔂 🗛

6.00pm-6.30pm and 7.00pm-7.30pm - drop in sessions Duration: 30 minutes Age recommendation: All

Back by popular demand! Join Dr Chris Gabbutt and Dr Mark Heron for a colourful demonstration to discover the science behind high-tech materials used to manufacture photochromic sunglasses and CDs. Learn about the development of switchable molecules that change colour when exposed to heat, light or electricity.

# CERN Live Session 🛐 👔 🖄

8

7.00pm-8.00pm – no booking required Duration: 1 hour Age recommendation: 12+



Take a virtual tour of the CERN experiments from your chair! The CERN Control Centre is the nerve centre from which all of CERN's accelerators are controlled in the largest particle physics laboratory in the world. This is your chance to find out more, ask questions and speak directly to scientists working at CERN.

#### Cancer Curing Molecules S

5.30pm-5.50pm and 6.00pm-6.20pm - no booking required **Duration: 20 minutes** Age recommendation: All

Join cancer research specialist, Dr Nikolaos Georgopoulos, to hear all about how scientists at the University of Huddersfield have been working on a potentially revolutionary cancer treatment that kills cancer cells.

#### Falling Walls Lab Huddersfield S 🗊 🔒 🛆 🖄

5.30pm-6.45pm and 7.00pm-8.15pm - no booking required Duration: 1hr and 15 minutes\* Age recommendation: 14+

FALLING WALLS LAB HUDDERSFIELD

#### \*Please note that guests must stay for the duration of the session

Hear researchers and entrepreneurs share their attempts to combat society's greatest challenges. Watch them compete to communicate their research projects, social initiatives, and business plans in only three minutes. Be inspired by the people who will shape our future. http://falling-walls.com/lab

#### Turbocharger Technology Talk 🕄 🗊 🔒

5.30pm-6.30pm - no booking required Age recommendation: All

Discover how designers use the turbocharger component to reduce engine emissions, increase efficiency and maximise performance. Professor John Allport explores how and why this ancient technology is now at the forefront of powertrain engineering.

# Heritage Quay

Waterways to the past 📴 🙆

Times: 6.00pm-8.30pm - drop in session **Duration: 20 minutes** Age recommendation: All

Many of us are in touch with Britain's engineering, industrial and cultural past without even noticing it, when we cross or walk along a canal. This hands-on session, with Dr Jodie Matthews and Professor Jessica Malay, invites people to think about the ways they interact with the waterways, what they feel about them and how these are a route to knowledge about the past – and what we think about the past today.

# Sound Waves S 🗊 🗛

6:30pm-7:30pm- drop in session Age recommendation: All

Discover the science, art and history of experiments with sound waves and create your own standing wave patterns with a tone generator and a chladni plate.

# Poetry Safari î 🙆

4.00pm-6.00pm - drop in session **Duration: 20+ minutes** Age recommendation: 8-13

Join Dr James Underwood and Gill Sampson for an animal-inspired poetry and print workshop, taking inspiration from famous poet and children's author Ted Hughes. Have fun creating your own poem, drawing and print to take home.

### **University Square**

#### Bhangra Renaissance 🙆

6.00pm-6.45pm - drop in session Duration: 45 minutes Age recommendation: All

Did you know that Huddersfield was the birthplace of one of the oldest Sikh cultural and Bhangra groups in the country in 1968? This spectacular type of music and dance is deeply rooted in the traditions of India's Panjabi region. Enjoy a Bhangra dancing performance and learn some of the basic steps with our visiting Research Fellow, Hardeep Sahota.

#### **The Grand Finale**

#### Commences at 8:30pm

Join us to celebrate and award prizes to the talented young winners of the photography, lab coat design and poetry competitions. Finish off the night with a bang, and stay to watch the amazing outdoor laser and firework display.

# **Sparck Jones Building**

#### Raspberry Jam 👔 🙆

4:30pm-8:30pm- drop in sessions Duration: 1 hour Age recommendation: 7+

Do you want to take part in an economic experiment where you will be Code is a tool that lets you write your story with technology. Come along asked to fundraise for a good public cause, such as a road, a hospital to meet Professor Richard Hill and find out more about micro:bit – a tiny or a park? Help Dr Maria Kozlovskaya investigate how different types programmable computer, designed to make learning easy and fun! of public projects affect the amount of voluntary contributions. They need your help to find out more about issues such as inequality and Life as a Journey 🙆 intelligence and people's behaviour.

5.00pm-8.30pm – drop in session **Duration: 15 minutes** Age recommendation: 7+

Have you ever thought of your life as a journey? Researcher Bridie Moore will help you to create a map of all the places you have lived (or ever been) in your life and bring to life your own personal journey in three minutes or less of movement and questions.

# **Lockside Building**

#### Circus of Six: The science of colour SA

4.00pm-6.00pm (must be pre-booked) 6.00pm-8.30pm - drop in sessions **Duration: 30 minutes** Age recommendation: 7+

Dr Fiona Woodhouse is putting the ART in STEAM with fireworks, chromatography flowers, chemical garden jewellery, colour mixing, splitting light and rainbow indicators - can you complete all six challenges?

#### What does a scientist look like? SA

4.00pm-8.30pm - drop in session **Duration: 10 minutes** Age recommendation: All

What do you think a scientist looks like? Join Professor Janet Fink to create your very own 21st century scientist using play dough, lego, whiteboards or collages. We can't wait to see your creations!

# **Charles Sikes Building**

# Feminism in the digital age 🗊

#### 6.00pm-6.45pm and 7.00pm-7.45pm (must be pre-booked) **Duration: 45 minutes** Age recommendation: 15+

Young feminists now tend to begin their feminist journey online on social media. This workshop with Dr Grainne McMahon, is where you can debate "doing feminism" and "becoming feminist" online and being a feminist in the digital age.

# Mythical Story Art 👔 🙆

4.30pm-5.00pm - drop in session (5-10 years), 5.30pm-6.00pm must be pre-booked (5-10 years) 6.30pm-7.00pm - drop in session (11+) 7.30pm-8.00pm must be pre-booked (11+) **Duration: 30 minutes** 

This workshop takes inspiration from ancient myths to tell stories that connect the past with our lives today. Use a combination of new and old drawing techniques to see what you can learn.

# Community Spirit 🙆

5.00pm-5.30pm and 6.00pm-6.30pm (must be pre-booked) 7.00pm-7.30pm - drop in session **Duration: 30 minutes** Age recommendation: All

# None in Three 🔂 🙆

#### 5.30pm-6.30pm - drop in session Age recommendation: 10-17 years

Have you ever considered how computer gaming can be used for education? Here at Huddersfield, Professor Adele Jones and her team have been using computer games to teach young people about domestic violence. Come along and have a go for yourself.

# Wake up and smell the coffee 🗊

#### 4.00pm-8.30pm - drop in session Age recommendation: 10+

Ethiopia comes to Huddersfield! Find out how coffee and honey are harvested in Ethiopia and take part in a tasting session of some of the products, with Professor Adrian Wood and Fiona Hesselden.

# Brain Game 🕅

5.30pm-8.00pm - drop in session Duration: 30 minutes Age recommendation: 10+

Meet Professor David Bamford and find out how our brains can sometimes mislead us! Guess the time it takes to move balls from one box to another. Then move the balls and count the time difference of how long you thought it would take compared to how long it actually takes.

# Diet and Health: Who's accountable? S

#### 6.00pm-6.45pm - no booking required **Duration: 45 minutes** Age recommendation: All

The food we eat has a huge impact on our health. Hear about research into the influence of the food industry on the diet of the nation with researcher, Pamela Anderson.

#### Think Forensic 🚯 🗊

4.00pm-8.30pm – drop in session Age recommendation: All

Join educational charity, Think Forensic, to discover some of the tricks used by real Crime Scene Investigators. Find out what kind of fingerprints you have using magnetic powder and see things like never before under a digital microscope.

# Institute of Railway Research Building

#### Build a Railway Locomotive 🗊 🔁 🔕

4.45pm-5.50pm, 6.00pm-7.05pm and 7.15pm-8.20pm (must be pre-booked) Duration: Approximately 1 hour Age recommendation: 8+

Meet the team at the Institute of Railway Research and work in a group to build an aerodynamic railway locomotive. Have fun competing to achieve the course in the fastest time.

#### Roller-Rig Tour 🗊 📵

4.30pm-4.50pm, 6.45pm-7.05pm and 8.00pm-8.20pm (must be pre-booked) Drop-in tours at 5:30pm and 6:20pm (no booking required) Duration: 20 minutes Age recommendation: 8+

Join Professor Simon Iwnicki and his team for a whistle-stop tour around Harold, the largest roller-rig in the UK and find out how it is used to test rail safety. A must-see for all engine enthusiasts!

### Railway Bridge Challenge 🟮 🔯

4.00pm-8.30pm – drop in session Duration: 15 minutes Age recommendation: 5+



Try your hand at this fun activity hosted by Railway Civil Engineer Nick Beilby from North Yorkshire Moors Railway. Learn about the scientific and engineering principles behind the structure of railway arches and test your skills.

# **3M Buckley Innovation Centre Foyer**

#### Virtual Reality Hub S 🗊

4.00pm-8.30pm – drop in session Duration: 20 minutes Age recommendation: 5+



Want to learn about science using Virtual Reality? Now you can! This session will let you work in a multi-million pound laboratory, shrink yourself down and travel through the bloodstream, or use a million dollar piece of scientific equipment, all in virtual reality. Come along and learn how we use science to catch criminals, how cells replicate, and how to work safely in a laboratory using Virtual Reality.

#### Team Hare and Team Hawk 🗊 🔒

4:00pm-8:30pm – drop in session Duration: 15 minutes Age recommendation: All

Meet student engineering teams, Hare and Hawk. Come and see a full size single-seat racing car and a drone and find out how our students designed and built them.



# **Technology Building**

#### Clean Designs 🔕

#### 4.30pm-8.30pm – drop in session. Duration: 10 minutes Age recommendation: All

Laundry care symbols, as we know them, were introduced in the 1950s. Do they still reflect our laundry behaviour today? Should we have a symbol for 'sniff before washing'? Come along and design a brand new laundry symbol for the future, with researcher Jade Whitson-Smith.

### 3D Holograms 🗊 🔕

4.30pm-5.30pm, 5.30pm-6.30pm and 7.00pm-8.00pm (must be pre-booked) Duration: 1 hour Age recommendation: 10+

Did you know you can make a 3D hologram at home with a few basic materials? You won't believe your eyes when researcher Katrina McLaughlin shows you how! Come along and set up your own mini hologram, and work as a group to design a giant version.



#### 3D Printing 🔂 💧

6.30pm-7.00pm, 7.00pm-7.30pm, 7.30-8.00pm and 8.00pm-8.30pm (must be pre-booked) Duration: 30 minutes Age recommendation: 8-12 years

Join researcher Rob Lovett to learn about using a laser scanner and scan a full size emergency vehicle! Send this information to a 3D printer so that you can create a replica to take home.

#### Textile Design 🙆

4.00pm-8.30pm – drop in session Duration: 15 minutes. Age recommendation: All

This is your chance to explore how designers develop inspirational creations using the Gleneden Post War Design Archive, which includes gouache paintings used in woven Jacquard fabrics.

#### Communal Stitch Collage 🔕

4.30pm-8.30pm - drop in session Age recommendation: 6+

Researcher Nicola Perren would like to invite everyone to contribute to our Researchers' Night communal stitch collage. It doesn't matter if you have never sewn before. Textiles can be about more than just colour and pattern – making things together can be fun, so come along and take part!

# Sir Patrick Stewart Building

#### Light Fantastic S

4.00pm-8.30pm – drop in session Duration: 30 minutes Age recommendation: All

Explore some of the properties of light with Dr Jeremy Hopwood and take part in experiments to see how these properties are used to shed light on our material world.

# St Paul's Hall

#### Shadows and Reflections Exhibition 👔 🗛

#### 4.00pm-8.30pm – no booking required Age recommendation: All

Explore an exhibition of paintings by Andy Fullalove with sound by Professor Monty Adkins. Originally exhibited at Bradford Cathedral in 2016, Fullalove's paintings take inspiration from the unique stained glass windows designed by William Morris and his fellow pre-Raphaelite designers. A soundscape uses original organ phrases slowed down and layered to create a subtle, immersive sonic experience.

# **Student Central**

# EU Corner S 🗊 🔁 🕼 🕼

4.00pm-8.30pm – no booking required Age recommendation: All



Visit the EU Corner to discover all about collaborative research the University of Huddersfield conducts across Europe and beyond. See if you can win a prize in our 'Researchers are All Around Us' competition, take part in tea tasting with our international students, discover what research universities across the Yorkshire region and beyond are involved in and have a go with our interactive map!

# Eureka! Fun Station 🖇 🗊 🕼 🕅

4.00pm-8.30pm – drop in session Duration: 20 minutes Age recommendation: All



Visit the Eureka National Children's Museum team and have fun with science! Use a scribblebot, make a lava lamp, get creative with absorption art and much more.

# STEAM Finalists Exhibition 🔇 🗊 🕒 🔕 🕲

#### 4.00pm-8.30pm Age recommendation: All

Take a look at some of the stylish researcher-themed lab coats, photographs and poems, created by children at schools in the Yorkshire region. This inspiring exhibition showcases the work of the finalists for the STEAM competitions.



# The Grand Finale

# Where: University Square When: 8.30pm

University of

HuddersfielD

Inspiring tomorrow's professionals

Competition Prize Winner Announcements and Laser Show with Firework Display.

Join us to celebrate the talented young winners of the lab coat design, senses photography and science poetry competitions.

Don't miss the fantastic finale display combining multi-coloured lasers and fireworks!



# Keep up to date with the event:



Marie Skłodowska-Curie: an inspiration to follow. This European Researchers' Night project is funded by the European Commission under the Marie Skłodowska-Curie actions. This project has received funding from the European Union's Horizo 2020 research and innovation programme under grant agreement no. 722929.