



# Celebration of STEM







31 May 2019 **Glasgow Science Centre** 

#### **Event Partners:**











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### WiFi CODE: STEM2019



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P	ro	q	ra	m	m	e

7.00 am - 9.30 am Registration and set-up

9.30 am - 1.00 pm School showcases – Atrium/Hive (1st Floor)

pH of Scotland – Hive (1st Floor)

Knots to Watts – Hive (1st Floor)

Propel – Hive (1<sup>st</sup> Floor)

VEX Robotics – (1<sup>st</sup> Floor)

Institute of Physics Drop-in – Atrium

Explore the Science Centre and My World of Work

9.30 am - 10.30 am Round 1 of STEM Challenges – Clyde Suite

10.45 am - 11.45 am Round 2 of STEM Challenges – Clyde Suite

12.00 pm - 1.00 pm Round 3 of STEM Challenges – Clyde Suite

1.00 pm Lunch Break

2.00 pm - 2.30 pm Awards Ceremony – Atrium

Hosted by Dr Heather Reid OBE

Guest Speaker: Clare Adamson MSP

Convenor of the Scottish Parliament's Education

and Skills Committee

2.30 pm onwards Dismantle and Depart

## Competitors

	Stand Number
Ae Primary, Dumfries and Galloway Knots to Watt and pH of Scotland	1
All Saints Secondary, Glasgow Work undertaken by S3 STEM captains and S6 ambassadors who have been working with the younger members of our learning community in nurseries and primary school. Knots to Watts, pH of Scotland and VEX Robotics.	2
Antonine Primary, Glasgow Island Explorer	46
Ayr Academy, South Ayrshire Various STEM activities including Fire Extinguisher, Bridge Building, Non-Newtonian Fluids, Lava Lamp, Geodesic Domes, Burning Custard	4
Bearsden Academy, East Dunbartonshire Go4SET, Engineering Education Scheme and various STEM activities	5
Braeview Academy, <i>Dundee</i> Greenpower race car and Mate ROV	6
Braidhurst High, North Lanarkshire VEX EDR and various coding projects	7
Bridge of Weir Primary, Renfrewshire VEX Robotics	8
Broomhill Primary School, <i>Glasgow</i> Island Explorer	47
Canmore Primary, Fife pH of Scotland and an aeronautical project	9
Carnoustie High, Angus Go4set project - Planning for climate change, Knots to Watts and VEX Robotics	10
Clerkhill Primary, Aberdeenshire pH of Scotland and various STEM activities	11
Clydebank High, West Dunbartonshire Propel	Propel
Corpus Christi Primary, Glasgow Island Explorers	48
<b>Dalkeith High School, Midlothian</b> pH of Scotland	12
Dalmarnock Primary, Glasgow pH of Scotland, My Bottle Garden	13

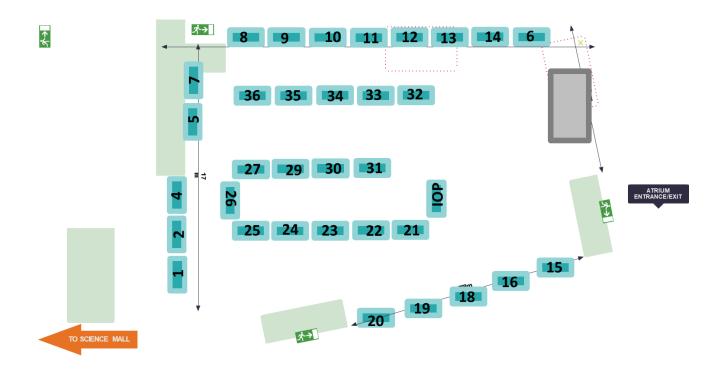
## **Competitors**

Dornoch Academy, Highland	
Condiment holder for local Golf course and VEX Robotics	14
Dunbarney Primary, Perth and Kinross VEX Robotics	15
Duncanrig Secondary, South Lanarkshire Propel	Propel
Eassie Primary, Angus pH of Scotland	16
Edinburgh Academy, Edinburgh Electric go cart and pH of Scotland	17
Forres Academy, <i>Moray</i> VEX Robotics and Knots to Watts	18
Garnock Community Campus, North Ayrshire Knots to Watt	19
Greenwood Academy, North Ayrshire Lego Mindstorms, Lego Wedo, Bloodhound RFTL 2019 and pH of Scotland	20
Hayshead Primary, Angus VEX IQ curricular journey	21
Hillpark Secondary, Glasgowl Propel	Propel
Hyndland Primary, Glasgow Island Explorers	49
Hyndland Secondary, Glasgow pH of Scotland, Go4SET and other STEM activities	22
Jedburgh Grammar, Borders Bridge and pH of Scotland	23
Jimmy Dunnachie Family Learning Centre, Glasgow My Bottle Garden	24
John Paul Academy, <i>Inverclyde</i> Propel	Propel
Kilsyth Academy, North Lanarkshire Scrub up to Science experiment, how to make the biggest bubble and Rube Goldberg machine We will also showcase our Rube Goldberg machine	26
Kingsland Primary, Borders Various STEM activities	27
Mearns Primary, East Renfrewshire pH of Scotland, Little Explorers Club, P6 Engineering Club and P7 Science Club	29

## Competitors

Mintlaw Academy, Aberdeenshire VEX Robotics, ROV MATE and pH of Scotland	30
Monifieth High, Angus Rotary Technology Tournment, F1 in School, EEP Robotics Challenge , VEX Robotics, Airgineers and Knots to Watts	31
Park Mains High, Renfrewshire F1 challenge, 4x4 in schools, Lego league, VEX robotics and STEAM projects	32
Priorsford Primary, Borders Robot, hover craft and an electric skateboard.	33
Sgoil Bhreascleit, Western Isles pH of Scotland and how renewable energies can help the community	34
Sgoil Lionacleit, Western Isles First Lego League, Into Orbit and Rampaging Chariots	35
Sir E Scott, Western Isles Heather's Hut, Knots to Watts, pH of Scotland and Circuit Training	36
St Ambrose High, North <i>Lanarkshire</i> Various STEM activities and a hover craft	37
St Andrew's RC Secondary, Glasgow Various STEM activities, 3D printing models, Jacobs Engineering Challenges, Coding Microbits project and CSI project which gained club members a bronze CREST Award	38
St Bride's Primary, Highland VEX Robotics and various STEM activities	39
St Brigid's Primary, Glasgow pH of Scotland	40
St Ninian's High, East Renfrewshire VEX Robotics and various STEM activities	42
St Paul's Primary (Whiteinch), Glasgow Island Explorers	50
The Glasgow Academy, <i>Glasgow</i> pH of Scotland	44
Thornwood Primary, Glasgow Island Explorers	51 & 52

## **Schools - Atrium**

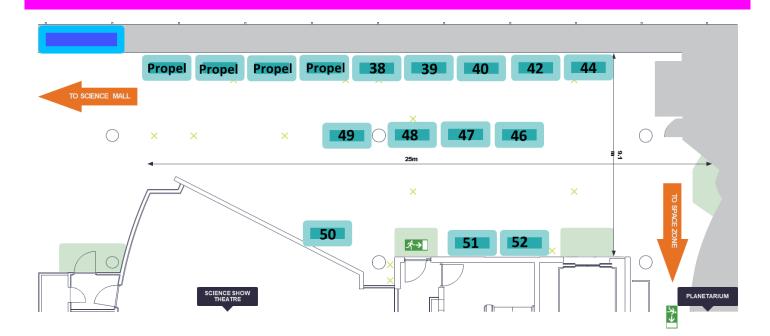


SCIENCE CENTRE

1	Ae Primary	20	Greenwood Academy
2	All Saints Secondary	21	Hayshead Primary
4	Ayr Academy	22	Hyndland Secondary
5	Bearsden Academy	23	Jedburgh Grammar
6	Braeview Academy	24	Jimmy Dunnachie Family
7	Braidhurst High		Learning Centre
8	Bridge of Weir Primary	25	Kilmacolm Primary
9	Canmore Primary	26	Kilsyth Academy
10	Carnoustie High	27	Kingsland Primary
11	Clerkhill Primary	29	Mearns Primary
12	Dalkeith High	30	Mintlaw Academy
13	Dalmarnock Primary	31	Monifieth High
14	Dornoch Academy	32	Park Mains High
15	<b>Dunbarney Primary</b>	33	Priorsford Primary
16	Eassie Primary	34	Sgoil Bhreascleit
17	Edinburgh Academy	35	Sgoil Lionacleit
18	Forres Academy	36	Sir E Scott
19	Garnock Community Campus	37	St Ambrose High

37 17 10

## **Schools - Hive**





38	St Andrew's RC Secondary	49	Hyndland Primary
39	St Bride's Primary	50	St Paul's Primary (Whiteinch)
40	St Brigid's Primary	51	Thornwood Primary (P5/6)
41	St Margaret's High	52	Thornwood Primary (P6)
42	St Ninian's High	Prope	el
44	The Glasgow Academy		Clydebank High
46	Antonine Primary		John Paul Academy
47	<b>Broomhill Primary</b>		<b>Duncanrig Secondary</b>
48	<b>Corpus Christi Primary</b>		Hillpark Secondary

## **Awards Ceremony**

### STEM Challenge Award, with thanks to companies listed overleaf

Primary Winner £100 and trophy
Secondary Winner £100 and trophy

### pH of Scotland, in partnership with Royal Society of Chemistry

Primary Winner £100 and trophy
Secondary Winner £100 and trophy

### Knots to Watts, in partnership with Crown Estate Scotland, Equinor and IOPS

Primary Winner £250 and trophy Secondary Winner £250 and trophy

Little Engineers Award Special prize

## Island Explorers, in partnership with University of Strathclyde Centre for Environmental Law and Governance

Winner £100

### Propel, in partnership with BAE Systems

Winner Amazon voucher

and trophy

Robots Skills, in partnership with VEX Robotics

Winner trophy

Newcomer Award £150 and trophy

Big Bang Competition Award Place at UK Finals

Club of the Year Primary £250 and trophy
Club of the Year Secondary £250 and trophy

## **STEM Challenge**







CityFibre























### **Acknowlegements**

We would like to thank the many people and organisations who have made this event possible including our event partners, STEM Challenge partners, judging panels, and all competing schools.

#### **Event Partners:**

Big Bang Chevron Lloyd's Register EMEA OPITO SHELL U.K. Limited

### Judges:

Stuart Aitkenhead, Babcock International Group

Mark Armstrong, Young Enterprise Scotland Giovanni Battista Picotti, Equinor

Deepi Bhardwaj, BAE Systems

Craig Burnett, Shell

Dominic Burrows, BAE Systems

Sergeant Alan D Cameron, Armed Forces

Careers Office Edinburgh

Lawrence Cowley, Lloyd's Register

Mark Dames, BT Scotland Jo Dempster, Dumfries House Bridie Gaynor, VEX Robotics Arran Goodchild, EngineeringUK

Colin Gunn, BAE Systems

Aileen Hamilton, Science Connects

Erin Hunter, Falck Group

Amy Lawrence, EngineeringUK Benjie Marwick Johnstone, SCDI

Mhairi McCann, Young Scientists Journal

Mark McKean, Crown Estate Scotland

Paul McKnight, VEX Robotics

Alex McLaughlin, Glasgow City Council

Stephen Milner, Total Kate Mingo, OPITO

Amelia Perry, Engineering UK

Jo Pitt, University of Strathclyde

Graeme Quinn, Wood

Paul Ransom, BAE Systems

Dr Heather Reid OBE

Fransesco Sindico, University of Strathclyde Tasha Wood Wakefield, Story Contracting Ltd

#### **STEM Challenges:**

Aberdeen Science Centre

BP

BT Scotland

City Fibre

**Dumfries House** 

**Glasgow Science Centre** 

Highlands and Islands Airports Limited

Incremental Group

Lloyd's Register EMEA

Rolls-Royce

SCDL

Scottish Maritime Museum

Scottish Power

Story Contracting

TAQA

Thales

University of the West of Scotland

### **Event Supporters:**

Institute of Physics, Physics Busking **VEX Robotics** 

#### **LEAD PARTNERS**













### **PRINCIPAL PARTNERS**











### **ASSOCIATE PARTNERS**















For further information on Young Engineers & Science Clubs Scotland visit www.scdi.org.uk/yesc/ or contact

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www.scdi.org.uk @scdiYESC

### **#YESCcelebrates**