Digital Maker CIC

We make makers...

Digital Maker CIC provides interactive technology workshops for young people aged 9+. We draw on subject areas from across the curriculum including **Science, Technology, Engineering, Arts and Mathematics (STEAM)**. Our project-based workshops offer a fun and relaxed environment in which children are encouraged to develop key life skills such as critical thinking, creativity and confidence, through exposure to new concepts and collaboration with others.

We offer a range of scheduled workshops including **90 minute sessions, half-day and full-day sessions** and **five-week blocks**. Our workshops cover a host of subjects from robotics and Minecraft programming to designing driverless cars and underwater vehicles. We are flexible and can tailor our workshops to specific requests. Please call us on **07734 473 932** or email **info@digital-maker.co.uk** to discuss a workshop.

HOW DO WE HELP TEACHERS?

As a social enterprise, we are committed to addressing the attainment gap and recognise that many teachers lack the time or expertise to deliver high quality teaching in digital technology. **There is a growing digital divide between children from deprived areas and those from more affluent areas**, leading to fewer opportunities and limited career options for many young people. By focussing on schools that receive Pupil Equity Funding, our workshops concentrate on children from more deprived areas, using teaching tools and lesson plans designed to encourage curiosity, resilience and a growth mindset.

WHERE ARE OUR WORKSHOPS?

In your school - we are fully self-contained and bring all our own equipment and consumables with us, requiring only power sockets.

HOW ARE WE RELEVANT?

Digital Maker CIC exists to address the growing attainment gap in Scottish schools, aiming to increase children's access to **STEAM** education, and ultimately improve the overall uptake of **STEAM subjects** at further education and beyond. Exploring a range of technology-based subjects, our workshops are designed and delivered to build **confidence** and **critical thinking** in young people, developing their curiosity and instilling a creative approach to projects and problems they will encounter throughout their lives. All our workshops are specifically linked to the Curriculum for Excellence, an abreviated version of it is enclosed in this pack.

WHY CHOOSE US?

We are a talented and enthusiastic two-person team offering a **unique blend of experience in the Arts, Engineering and Sciences**. Believers in life-long learning, **Martin Evans** has worked in computing, electronics and IT for over 30 years. He is passionate about inspiring curiosity and imagination in children and young adults, and has been delivering tech workshops since 2014 and **Phil Thompson** began his career in graphic design, and moved into freelance art and design, years later following a Masters Degree in Fine Art. They began collaborating on various digital & artisitc projects, they formed Digital Maker in 2017.

Our workshops have taken us to **primary** and **secondary schools** throughout **Aberdeen** and **Aberdeenshire**, north to **Invergordon** and **Shetland**, south to **Dundee** and the **Edinburgh Science Festival** and eastwards as far as the **Abu Dhabi Science Festival**, where we delivered friendly and engaging hands-on technology to around 1,850 children from all over the world.

HEALTH & SAFETY

Digital Maker CIC takes child protection and health and safety issues seriously. All our workshops and equipment are fully checked and risk-assessed. We are PVG-approved and our activities are insured under Zurich Insurance PLC.

GET IN TOUCH!

Please get in touch on **07734 473 932** or **info@digital-maker.co.uk** to discuss a workshop in your school.

We look forward to hearing from you!

Company number **SC555318**

Digital Maker

...We make makers

Our People

Martin Evans

Martin has worked in computing and IT for the past 30 years. He has written an electronics book "**Arduino in Action**" published by Manning Publication that has been translated into four languages. He is also very active in the UK Maker community, building underwater robots, and has exhibited all over the country at Maker Faires. Martin ran his first Tech workshops in late 2015 with Aberdeen College & then teamed up with Phil Thompson to provide workshops to the Prince's Trust and after school clubs in Aberdeen.

Philip Thompson

Philip studied Graphic Design in Aberdeen College of FE & worked for Text Effex until he joined The Fifth Business in 1996, expanding his knowlege & skills in multimedia design. Philip moved to London in 2005 with the Fifth Business to help set up an office there & returned to Aberdeen in 2006 when he became a father. Philip challenged himself to study an MFA & succeeded. With a change of life & learning, Philip became self employed & also worked for an arts charity, Creative Cultures Scotland.

Your safety

PVG

All workshop leaders and staff are PVG checked.

Risk Assessment

Digital Maker CIC has risk assessments for all activity they conduct. If you wish to see copies of these, please let us know.

Public Liability

Digital Maker CIC have full Public and Employers liability cover with Zurich Insurance PLC.
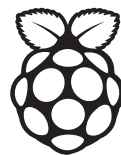
Tools of the trade

Digital Maker CIC use a wide range of affordable & accessible tools to inspire & educate pupils.

Our remit as a **CIC** is to engage with Scottish pupils from all backgrounds, so cost is a major factor in getting our technology & tools into the hands of as many pupils as possible.

We use:
Carboard, soldering kits, electronics, robotics, Raspberry Pi Ceeds, Whiteboards, 3D Software & printer and a range of software, Scratch, Python, Blockly, Office Libre.

python™

scratch

blockly

3DSLASH
A 3D PIECE OF CAKE

makedo

Company number SC555318

Digital Maker
...We make makers

Testimonials

Primary Teacher

"The project based learning gets the pupils working really well together, it's the best I've seen them communicating & sharing when learning!"

P6 Pupil

"I liked spending time with Awesome Tech because they helped me create & learn about technology."

S2 Excel Pupil

"I really liked how there was no 'right way' to make the scribblebot. I could try different ideas knowing it wasn't wrong"

Primary Head

"Your enthusiasm and skills captured the pupils' interests in coding and I'm sure you will work your magic again this session"

Ed Science Festival

"You had one of the most popular (ticketed) workshops of the ADSF2017" (Abu Dhabi Science Festival)

Adult Workshop

"It's been brilliant. Really fun & creative, it was nice to have the confidence to play & try things I wouldn't normaly get to do"

Ms Masters, Seaton P7 Teacher

I have loved having Awesome Tech in our class, and so have the children. They have helped teach skills such as resilience and applying a growth mindset, and there have been so many amazing 'lightbulb' moments! The children are applying skills and meeting outcomes that can be tricky for teachers to incorporate otherwise- and can be beyond our own subject knowledge! It has given confidence to pupils who find other areas of the curriculum challenging and allowed them to hone their skills in working as part of a team. It's rare to have visitors who not only have such subject knowledge but are also so effective at working with children- my class think Martin and Phil are just the best and look forward to every visit!

To recap

Computing

Digital Maker CIC have a fully portable computing suite! We use Raspberry Pi top Ceeds, wireless mice & keyboards & extension cables. We can be set up & ready to teach in 10 minutes.

Programming

Digital Maker CIC use Scratch, Python & Blockly to teach pupils about varying degrees of computer programming concepts & languages. We are always keeping our eyes peeled for new ogramming developments too.

Design

Digital Maker CIC explore various design areas, product design, graphic design, systems design and more. We encourage pupils to consider function and form in 2D & 3D to convey their ideas & style.

Critical Thinking

At the core of **Digital Maker CIC's** activity, is the encouragement of Critical Thinking. We don't "teach", we guide & give the pupils the space to play & explore through the application of critical thinking, growth mind-set & resilience. We believe that these are the root skills of any successful learner, so feature heavily in our workshops.

Growth Mind-set

Digital Maker CIC encourage a growth mind-set in all the pupils we work with. Our own conduct & "stories" highlight how we are still learning and the satisfaction "learning" gives us. We always encourage pupils to TRY, to take risks & "see what happens". Our robust equipment copes with accidents, giving pupils confidence & resilience.

Resilience

Digital Maker CIC promote a sense of resilience. We encourage pupils to make mistakes & to "FAIL" (First Attempt In Learning). We believe that when the pupils make mistakes, they have a deeper understanding of a problem & how to address it to find solutions. Practice doesn't make perfect, but it does make pupils more robust.

Curriculum for Excellence

Digital Maker CIC's workshops & class content covers a lot of areas listed in the Curriculum for Excellence. We often challenge our students with deeper learning & can touch upon more advanced areas of the curriculum with them.

Below is an indication of the areas we cover, if you have any specific requests or areas you wish us to target, we'd love to hear from you.

Sciences

Observing and researching features of our solar system… **SCN 2-06a**

Using knowledge of our solar system and the basic needs of living things… **SCN 3-06a**

Investigating how friction, including air resistance, affects motion… **SCN 2-07a**

Collaboration in investigations into the effects of gravity on objects and I can predic… **SCN 3-08a**

Use a range of electrical components to help to make a variety of circuits for differing purposes… **SCN 2-09a**

Contributing to investigations into the properties of a range of electronic components… **SCN 4-09b**

Using my knowledge of electronic components and switching devices… **SCN 4-09c**

Mathematics

Use my knowledge of rounding … **MNU 2-01a**

Having explored the need for rules for the order of operations… **MTH 2-03c**

How the number line extends to include numbers less than zero… **MNU 2-04a**

Using simple time periods,

I can work out how long a journey will take… **MNU 3-10a**

I can use my knowledge of the sizes of familiar objects… **MNU 2-11a**

Find the perimeter and area of a simple 2D shape … **MNU 2-11c**

Relationship between 3D objects and their nets… **MTH 2-16b**

I can draw 2D shapes and make representations of 3D objects…**MTH 2-16c**

Understanding to interpret simple models, maps and plans. **MTH 2-17d**

Understanding of bearings and scale to interpret maps and plans… **MTH 3-17b**

I can use my knowledge of the coordinate system… **MTH 2-18a / MTH 3-18a**

Plot and describe the position of a point on a 4-quadrant (6 in our classes) coordinate grid. **MTH 4-18a**

Understanding of the 4-quadrant coordinate system to move, and describe the transformation of, a point or shape on a grid. **MTH 4-18b**

Technologies

I can use what I learn to help to design or improve my ideas or products… **TCH 2-01a**

I can investigate how an everyday product has changed over time… **TCH 2-01b**

I can begin to understand the relationship between key scientific principles and technological developments. **TCH 3-01a**

As I extend and enhance my knowledge of features of various types of software… **TCH 1-03a / TCH 2-03a**

I can use search facilities of electronic sources to access and retrieve information,.. **TCH 2-03b**

I enhance my learning by applying my ICT skills in different learning contexts across the curriculum. **TCH 3-04a**

I can build a digital solution which includes some aspects of multimedia… **TCH 3-08b**

I can make an informed choice when deciding on the system required for a specific purpose… **TCH 3-08c**

Using appropriate software, I can work collaboratively to design an interesting and entertaining game which incorporates a form of control technology or interactive multimedia… **TCH 2-09a**

I can work individually or collaboratively to design and implement a game, animation or other application… **TCH 3-09a**

By learning the basic principles of a programming language or control technology, I can design a solution… **TCH 4-09a**

I can practise and apply a range of preparation techniques and processes to make a variety of items showing imagination and creativity… **TCH 3-10a**

I can adapt and improve, where appropriate, through trial and error or by using feedback… **TCH 1-11b / TCH 2-11b**

I can engineer 3D objects which demonstrate strengthening, energy transfer and movement… **TCH 2-12a / TCH 3-12a**

I can estimate and measure using appropriate instruments and units… **TCH 1-13a / TCH 2-13a**

I have gained confidence and dexterity in the use of materials, tools, equipment, software… **TCH 3-13a**

Manufacture a variety of items in wood, metal, plastic or other material, showing imagination and creativity, and recognising the need to conserve resources… **TCH 3-13b**

Company number SC555318

Digital Maker
…We make makers