Ingenious Computing.

Ukie’s Digital Schoolhouse together with Nintendo UK, is a not-for-profit programme which enables academic institutions (Schoolhouses) to deliver creative computing workshops to local Primary schools.

Schoolhouses are not charged for their participation in the programme or for the support that they receive.

Welcome.

Together with Nintendo UK, we welcome schools and colleges to the programme.

We uniquely combine computing, creativity and industry expertise to revolutionise classrooms across the UK. Our partners continue to help us to extend our reach and this academic year, we aim to support at least **32,000 pupils** and over **4000 teachers.**

As a bridge between education and industry, we combine the best of both worlds to bring pioneering events such as our national schools esports tournament to thousands of students. With widespread impact proven to increase engagement with computer science, school attendance, and a range of soft skills, this immersive experience opens the door to a world of possibilities.

Our programme partners bring with them new possibilities, and we are incredibly excited about the incredible adventures that lie ahead of us.

If you have a creative idea that you would like to see implemented into a classroom or if you'd like to apply to join the programme, then please do get in touch. We look forward to welcoming you into our community.

No idea is too crazy.

Shahneila Saeed
Director of Digital Schoolhouse &
Head of Education at Ukie

INDUSTRY EXPERTISE

Work together to provide expertise & insight into industry practices

ACADEMIC EXPERTISE

Support and train our teachers with current thinking in educational practice

Deliver free weekly workshops to visiting schools within the local community

FREE WORKSHOPS

Offer CPD and personalised support to visiting teachers within the community

PERSONALISED SUPPORT

Nintendo UK is extremely excited to be working together with Ukie's Digital Schoolhouse as lead partner. The Digital Schoolhouse programme uniquely combines computing, fun, creativity and innovation, all of which are synonymous and at the heart of Nintendo's values.

Through this collaborative partnership we aim to reach more teachers and pupils than ever before, in order to help inspire the next generation of young minds across the UK. Through the Digital Schoolhouse Super Smash Bros. Ultimate Team Battle with Nintendo Switch, as well as through other play-based learning initiatives, we want to be able to provide young adults with fun and unique experiences that will form positive lasting memories as well as foster the development of skillsets within students which they can take with them into their future.

KALPESH TAILOR,
HEAD OF COMMUNICATIONS AT NINTENDO UK

DIGITAL SCHOOLHOUSE
together with
NINTENDO SWITCH

How it Works.

DIGITAL SCHOOLHOUSE IS A TRANSITION PROGRAMME DELIVERED BY ACADEMIC INSTITUTIONS.

01 SCHOOLS (TYPICALLY SECONDARY AND FE) ARE SELECTED TO BECOME DIGITAL SCHOOLHOUSES

02 THEY OFFER FREE WEEKLY WORKSHOPS TO VISITING SCHOOL PUPILS AND TEACHERS (TYPICALLY PRIMARY)

03 THE AIM OF THE DAY IS TO TEACH PUPILS COMPUTING IN A WAY THAT IS CREATIVE, INNOVATIVE, INSPIRATIONAL, ENGAGING AND FUN

04 COMPUTER SCIENCE CONCEPTS ARE TAUGHT WHEREVER POSSIBLE USING PLAY-BASED LEARNING AND FUSE ART AND SCIENCE (‘STEAM’) E.G. THROUGH DANCE, GAMES, MAGIC AND STORYTELLING

05 EACH DIGITAL SCHOOLHOUSE LEAD TEACHER IS GIVEN BESPOKE TRAINING TO IMPROVE THEIR SUBJECT KNOWLEDGE AND TEACHING PEDAGOGY

06 ALL VISITING TEACHERS ARE PROVIDED FREE PERSONALISED SUPPORT POST VISIT TO HELP THEM CONTINUE TO EMBED COMPUTING WITHIN THEIR SCHOOL PROVISION

Mission.

Revolutionise computing education to inspire the next generation.

Each year Digital Schoolhouse aims to support:

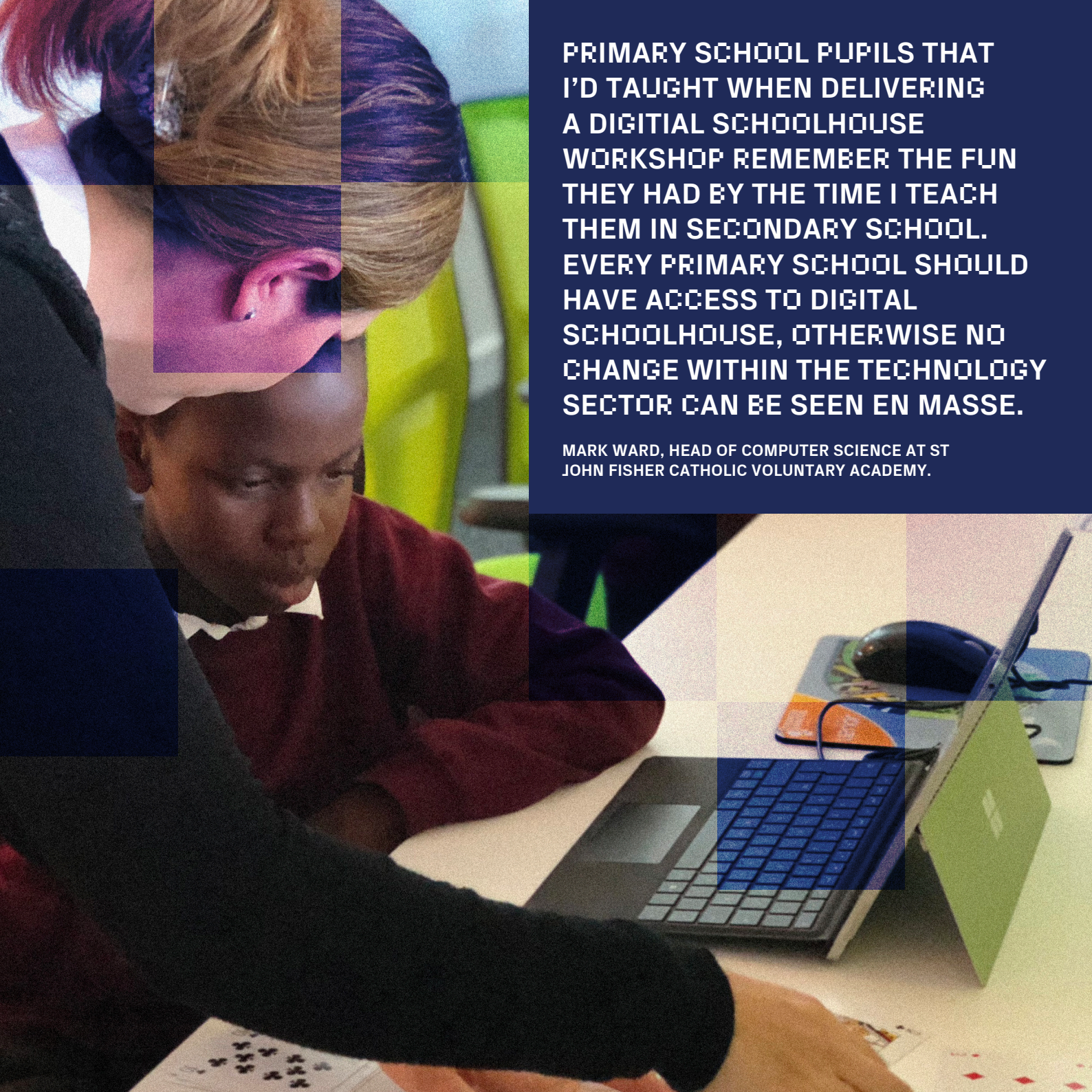
32k PUPILS

4k TEACHERS

350 SCHOOLS

Making a difference.

The programme continues to have significant impact on education at all levels.



PRIMARY SCHOOL PUPILS THAT I'D TAUGHT WHEN DELIVERING A DIGITIAL SCHOOLHOUSE WORKSHOP REMEMBER THE FUN THEY HAD BY THE TIME I TEACH THEM IN SECONDARY SCHOOL. EVERY PRIMARY SCHOOL SHOULD HAVE ACCESS TO DIGITAL SCHOOLHOUSE, OTHERWISE NO CHANGE WITHIN THE TECHNOLOGY SECTOR CAN BE SEEN EN MASSE.

MARK WARD, HEAD OF COMPUTER SCIENCE AT ST JOHN FISHER CATHOLIC VOLUNTARY ACADEMY.

Academic Recognition.

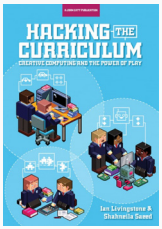
The programme continues to gain academic recognition and work in collaboration with a numbers of academic instutiutions.

THE ROYAL SOCIETY
SHUT DOWN OR RESTART

TEDxMatera
x = independently organized TED event

HOUSE OF LORDS
Digital Skills Select Committee Report

HM Government
Industrial Strategy, Creative Industries Sector Deal



Queen Mary
University of London

STAFFORDSHIRE
UNIVERSITY

Newman
University
BIRMINGHAM

STRANMILLIS UNIVERSITY COLLEGE
A College of Queen's University Belfast

Together with Nintendo Switch, the Digital Schoolhouse Super Smash Bros. Ultimate Team Battle is expected to reach over 6000 pupils in schools & colleges across the UK this academic year.

By presenting a unique insight into the creative digital sector, Digital Schoolhouse aims to encourage homegrown talent in order to futureproof the industry's workforce.

The programme provides evidence that participating in the tournament can help to engage students with developing digital skills and broader soft skills, in addition to enabling them to aspire to career pathways that they may not have otherwise considered.

Besides gameplay, students are immersed in careers education, by connecting them with industry professionals and facilitating the recruitment of student event teams in schools.

99

99%

of 8-15 year old children play games

UKIE.ORG.UK (2018)

94

94%

of students said that taking part in the tournament made them more interested in computing

ESPORTS: ENGAGING EDUCATION (2018)

Reasons to get involved

PRIMARY SCHOOLS

- Improved Key Stage 2 to 3 transition with local secondary school
- Significantly improved teacher confidence in delivery of the new curriculum
- Building teacher subject knowledge of concepts covered within the new curriculum
- Pupils find the workshops fun, engaging and inspirational, often continuing with the work in their own free time
- Teachers welcome the receipt of personalised and sustained ongoing support from local secondary experts to aid delivery of the new curriculum
- Participation in the workshops significantly improves pupils' confidence and understanding of computer science concepts, with clear signs of improved educational attainment

PUPILS

- Improving the transition experience from Key Stage 2 to Key Stage 3, enabling secondary school teachers to have a better understanding of the new intake
- Improved links with feeder primary schools (and beyond)
- Improved understanding and development of pedagogical skills to enhance the delivery of the new curriculum. This results in better quality computing lessons for the visiting primary pupils and the Digital Schoolhouse teacher's own Key Stage 3 to Key Stage 5 students
- Improved teacher confidence
- Raised profile of computing within the school and the local community
- Raised profile of the school within the local community
- Increased opportunities for teacher's continued professional development (CPD) and establishing strong connections to industry

SECONDARY + FE COLLEGES

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ADDITIONAL BENEFITS

- Free training provided by Digital Schoolhouse leaders, university academics and members of the creative and edtech industries
- Free adaptable cross-curricular resources for Digital Schoolhouses and secondary classroom use: digitalschoolhouse.org.uk workshops
- Training for local teachers through innovative CPD methods and meeting outreach needs (especially if teaching schools or academies)
- Sustainability options for the Digital Schoolhouse through delivery of not for profit CPD and expert support
- Join the DSH Lead Teacher community and be part of a nationwide network

Bridging the gap.

SHARED EXPERTISE

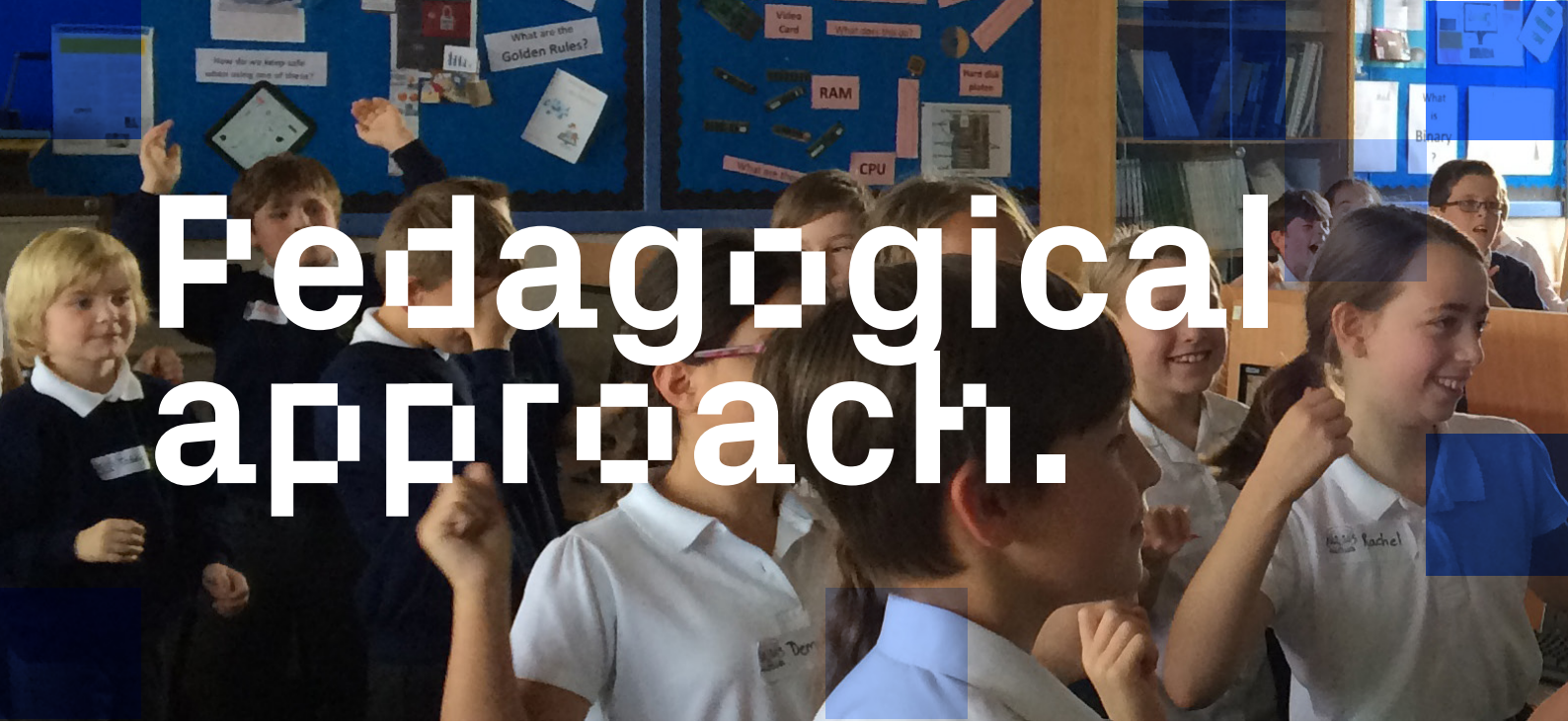
While industry is the best place to find the latest innovation and hook to engage pupils, it is teachers that understand how classrooms work and are best placed to direct how ideas can be implemented amongst a group of students. **Digital Schoolhouse** bridges the gap between industry and education to develop resources, share ideas and make things happen. Some examples include:

CS4FN (QUEEN MARY UNIVERSITY OF LONDON) work with us to directly train our DSH Lead Teachers on using a more constructionist and play-based approach to teaching computing. A lot of our workshops also feature CS4FN magic and activities, such as the 21 Card Trick to teach computational thinking.

GFINITY help bring our esports tournament to life. Through shared expertise and resources Digital Schoolhouse became the first ever schools esports tournament in the UK.
A unique approach to immersive careers education for 12 – 18 year olds.

CAT ON YER HEAD BY PLAYNIAC was a game orignally designed for industry use. With Digital Schoolhouse adding its own spin, this has now become a popular activity in classrooms to teach computational thinking and games design principles to pupils and teachers.

3DOODLER Digital Schoolhouses are the first schools in the country to use this 3D printing pen to teach computational thinking.



Pedagogical approach.

PLAY-BASED LEARNING:
"...LEARNERS CONSTRUCTING KNOWLEDGE AS THEY EXPLORE, EXPERIMENT, DISCOVER AND SOLVE PROBLEMS IN PLAYFUL AND UNIQUE WAYS"

EBBECT, YIM AND LEE, 2013

The new Computing Curriculum places **computational thinking** and **creativity** at its heart. These concepts and ideas underpin the entire subject. But it's easier said than done! For starters, what is computational thinking and how do you teach creativity? Creativity needs the right conditions, including a playful state of mind; time and space to think; and the opportunity to bounce ideas off each other. The Digital Schoolhouse programme aims to foster creativity in the classroom by using a range of 'unplugged' and play-based learning techniques to teach computing and computational thinking.

Play-based learning provides a fun and innovative way to help learners understand and visualise otherwise potentially abstract concepts.

When compared to traditional teaching methods, play-based learning employs a looser, more creative lesson format and gives pupils greater scope to solve problems and discover solutions rather than working towards one prescribed 'correct' result. Our free resources embed computational thinking and creativity into full lesson schemes and plans which are mapped onto the computing curriculum.

SOME OF OUR UNIQUE RANGE OF ACTIVITIES INCLUDE:

CREATIVE PROGRAMMING

- through dance with Get with the Algo-rhythm
- through magic (a CS4FN collaboration)
- through playdough with Making Faces: Playdough Programming
- through board games

DEVELOPING COMPUTATIONAL THINKING SKILLS

- through jigsaw puzzles with Jazzy Jigsaw
- through story books with Gamebook Computing
- and many more

IT HAS SUPPORTED TEACHERS ACROSS THE PARTNERSHIP AND HELPED TEACHERS DEVELOP THEIR SKILLS AND KNOWLEDGE IN ORDER TO HELP CHILDREN LEARN.

JULIE BOND, COMPUTING LEAD
RYDER HAYES PRIMARY SCHOOL

SPOTLIGHT: COLESHILL SCHOOL

The Coleshill School first decided to get involved in Digital Schoolhouse with the objective of building links with local primary chools, and 12 months in, the benefits have far exceeded expectations.

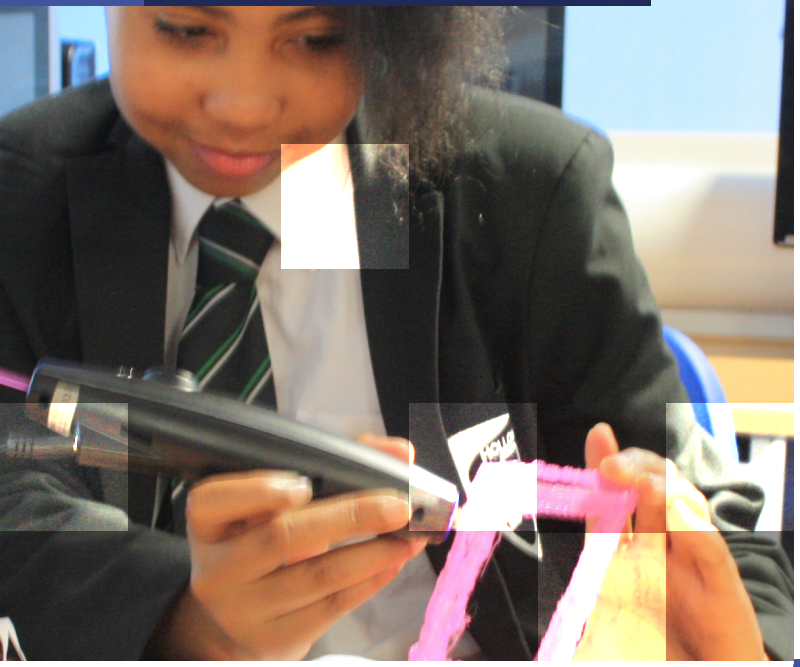
We were introduced to the programme by Warwickshire County Council and were so impressed by what the programme had to offer, we applied to become a Schoolhouse straight away. We're currently working with six primary schools a year, and we believe a significant number of students have chosen to come to us specifically because they've enjoyed the Digital Schoolhouse experience so much.

The programme simplifies and explains concepts away from a computer, which we never would have explored before. We use this approach with the primary schools, but also apply the same concept to our own students.

We've put quite a lot of what we've learned into our schemes of work for our Key Stage 3 students; ultimately, its changed the way we teach computing in the school as a whole!

Undoubtedly, the programme benefits secondary schools, but it is hugely valuable for primaries too. It's a great way to start teaching key skills related to computing from a young age. The programme also appeals to both girls and boys; generally, younger age groups don't differentiate between 'boy subjects' or 'girl subjects'. It reinforces that fact that both can excel in computing, which we expect, will mean significantly less girls shying away from the subject as they get older. There's absolutely no downside to the programme. We'd encourage other secondary schools to apply to become Schoolhouses, and recommend that primary schools reach out to their nearest Schoolhouse to schedule some workshops.

SPOTLIGHT: BALLYCLARE



Ballyclare in Northern Ireland, joined in 2017 upon learning that Digital Schoolhouse could be used to support their own IT strategy.

What stood out was the play-based approach to teaching computing. Students love it, while primary teachers see it as an opportunity to up-skill and support their continued professional development. The brilliant part, thanks to the bursary supplied by the programme, is that our Lead Teacher can be taken off timetable to teach workshops. This gives freedom to contribute and teach in an unrestricted way. We're optimistic that being part of this creative computing initiative will help us to continue to meet guidelines issued by the Department for Education.

SPOTLIGHT: SHIRE OAK

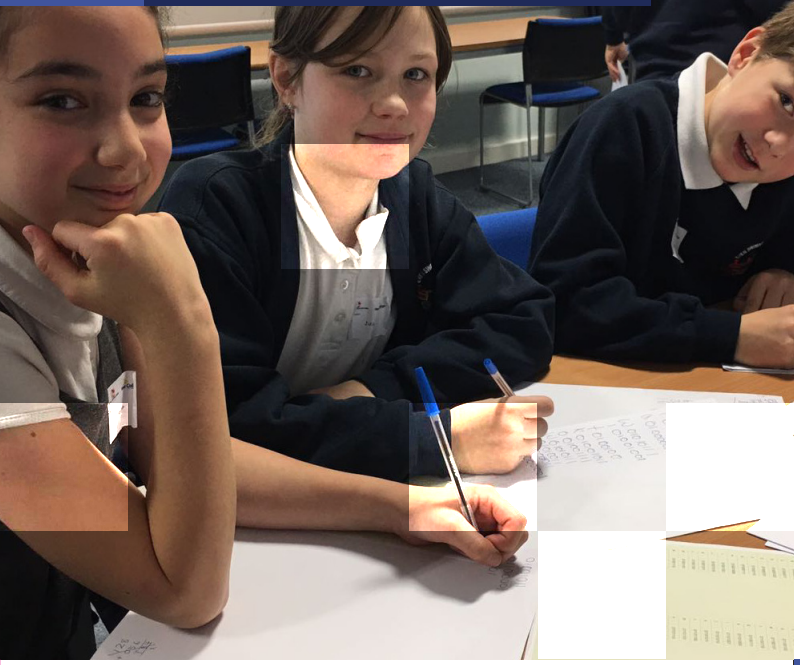
Shire Oak is an 11 to 18 comprehensive Academy and a specialist Science College. Over three years ago, their aim was to link with more primary schools in the locality, and Computing seemed the perfect way to do this.

We've heard from students who've decided to come to Shire Oak specifically because of our work with DSH - a testament to its value!

They have greater computing knowledge but also feel comfortable with the school, helping to bridge the transition gap.

I can't recommend the programme highly enough and regularly suggest it to other secondary schools. The Lead Teacher community is like an extension of our school and they're so receptive and helpful!

SPOTLIGHT: NEW COLLEGE



New College Swindon was the first college to become a Schoolhouse in 2016. Now, working with 17 primary schools, it delivers workshops to approximately 500 Year 5 and 6 students annually.

Through delivering workshops, we've noticed a lot more engagement from girls. This has impacted our own female students deciding to take up computing as a direct result of their experience with the programme. Feedback also confirms that the programme removes the intimidation from teaching computing.

Getting involved with Digital Schoolhouse was a no brainer. The training that Lead Teachers receive is exceptional - from industry experts, and for free. This is another huge benefit for schools trying to navigate reduced funding.

SPOTLIGHT: TOWNLEY GRAMMAR

Townley introduced the pilot GCSE Computer Science course in 2010 after obtaining specialist status in Maths & Computing. This spearheaded development in Computing across the school community; becoming a local hub for schools and contributing to the new National Curriculum for Computing at Key Stage 3 and 4.

Joining the programme was a natural progression and has helped raise our profile as a specialist computing school, as well as bringing lots of excitement to the department.

We've been able to provide an inspirational platform to deliver computing workshops for pupils, whilst liaising with industry. This partnership will help rebalance the gender gap in STEM subjects and inspire the next generation.

Get involved!

- APPLY TO JOIN THE PROGRAMME
- BOOK A WORKSHOP
- DOWNLOAD FREE CLASSROOM RESOURCES
- REQUEST CONSULTANCY

FIND OUT MORE AT
DIGITALSCHOOLHOUSE.ORG.UK

GET IN TOUCH AT
CONTACT@DIGITALSCHOOLHOUSE.ORG.UK

@digschoolhouse @digischoolhouse

#DSHplay #DSHesports

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