

# DIGITAL LEARNING FOR LIFE AND WORK

SCHOOLS GUIDE





## STATEMENTS

BY GIVING LEARNERS THE ESSENTIAL TOOLS EARLY IN THEIR EDUCATION, YOU ARE PROVIDING THEM WITH THE FOUNDATION DIGITAL SKILLS TO SUPPORT THEIR FURTHER EDUCATION, CAREER ASPIRATIONS AND INDUSTRY NEEDS.

NO CHILD SHOULD LEAVE SCHOOL WITHOUT AN ADEQUATE STANDARD OF DIGITAL LITERACY. IT IS THE VIEW OF THIS COMMITTEE THAT DIGITAL LITERACY SHOULD BE THE FOURTH PILLAR OF A CHILD'S EDUCATION ALONGSIDE READING, WRITING AND MATHEMATICS, AND BE RESOURCED AND TAUGHT ACCORDINGLY

Source: House of Lords

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# INTRODUCTION

## DIGITAL LEARNING FOR LIFE AND WORK

BCS, The Chartered Institute for IT advocates that digital skills need to be considered a core component of learning alongside Maths and English.

Schools play a critical role in creating a pipeline of young people with the knowledge and digital skills capabilities that are both essential for progression onto higher education and for future employment.

BCS has developed a range of qualifications and resources for schools to support students at all stages, to develop a range of skills from online responsibility, digital literacy, foundation robotics, and computational thinking.

**'47% of leaders BCS surveyed said their workforce does not have the digital literacy skills needed today to succeed'.**

Although young people are digitally savvy using tech and handheld devices as part of their everyday lives, many do not possess the specific digital skills essential for supporting them into higher education or the future jobs market, where digital skills will be the norm regardless of the job they do.

WITHIN TEN YEARS 9/10 JOBS WILL REQUIRE DIGITALS SKILLS

Source: World Economic Forum 2020

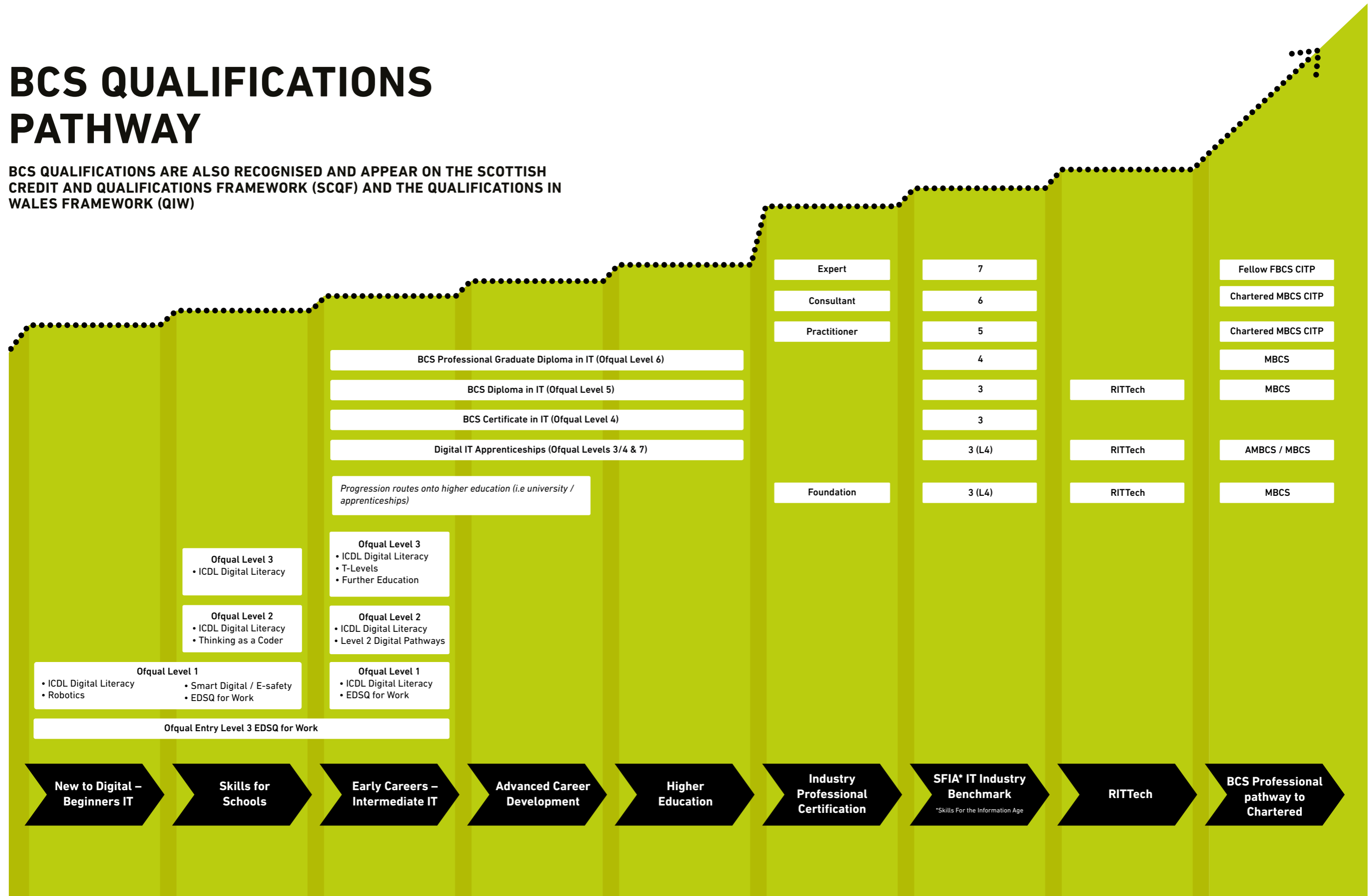
# INTERNATIONAL CERTIFICATION FOR DIGITAL LITERACY (ICDL)

*EXISTING JOBS ARE EVOLVING, AND NEW ONES ARE APPEARING. ONE THING IS CERTAIN: DIGITAL SKILLS ARE VITAL IN EDUCATION AND WITHIN THE WORKFORCE.*



# BCS QUALIFICATIONS PATHWAY

BCS QUALIFICATIONS ARE ALSO RECOGNISED AND APPEAR ON THE SCOTTISH CREDIT AND QUALIFICATIONS FRAMEWORK (SCQF) AND THE QUALIFICATIONS IN WALES FRAMEWORK (QIW)



# INTERNATIONAL CERTIFICATION FOR DIGITAL LITERACY (ICDL)

- Flexible delivery and assessment entirely online - approved course materials and diagnostic tests available
- Assess your students only when they are ready - automated marking with instant on-screen results frees up valuable teaching time
- Ofqual-approved across the three levels
- Recognised by educators, employers, and governments worldwide as proof of digital literacy competent and efficient computer skills

STUDENTS WHO COMPLETE ICDL IN THEIR SCHOOLS HAVE CONSIDERABLY BETTER CHANCES FOR THEIR CAREER ENTRY."

– Project study performed by the Institute for Education Research and Adult Education at secondary and vocational schools in Germany

ALLOWS STUDENTS TO PROGRESS ONTO COLLEGE OR EMPLOYMENT DEMONSTRATING COMPETENCE IN USING THE MICROSOFT OFFICE SUITE".

Grange school

## TEACH ICDL

ICDL is the International Certification of Digital Literacy, a suite of vocational qualifications that teaches young people how to use IT software applications confidently and effectively. ICDL Student is an additional suite of qualifications for schools, it introduces coding at an earlier stage of education and introduces the skills to use devices safely and to communicate responsibly with others.

# ICDL DIGITAL STUDENT

Comprises three qualifications aimed at Key Stage 2/3 learners and includes teacher/learner resources.

- BCS Level 1 Smart Digital Award in E-Safety
- BCS Level 1 Robotics Award
- BCS Level 2 Thinking as a Coder Award

## BCS LEVEL 1 SMART DIGITAL AWARD IN E-SAFETY

Smart Digital introduces students at a relatively young age (approximately 10 to 12 years) to using technology appropriately. Smart Digital will also provide them with the foundation to progress on to additional essential skills, as well as more focused skills.

### BCS LEVEL 1 SMART DIGITAL AWARD IN E-SAFETY

#### LEVEL 1

QAN 603/6931/0

ESFA Funding 14-16

16-19 EFA

#### OFQUAL REGULATED

TQT 32 GLH 30

ASSESSMENT 90 mins

#### WHO IS IT FOR:

- Key Stage 2 and 3 learners
- Learners with little or no digital skills knowledge

## BCS LEVEL 1 ROBOTICS AWARD

The BCS Level 1 Robotics Award has been developed to engage and introduce young people to tech at an early stage of education. This is a qualification that will help develop teamwork, communication and soft skills. Plus, your pupils get to build and programme a robot and gain a Level 1 certificate on successful completion.

#### LEVEL 1

QAN 603/7793/8

ESFA Funding 14-16

14-16 EFA

#### OFQUAL REGULATED

TQT 51 GLH 37

ASSESSMENT 45 min online test and offline skills assessment

#### WHO IS IT FOR:

- Key Stage 2 & 3 learners

## BCS LEVEL 2 THINKING AS A CODER AWARD

Level 2 Thinking as a Coder is a progression pathway from the Level 1 Robotics Award. This qualification includes essential computational thinking and coding skills that support the creation of simple computer programs and develops related skills such as problem solving, pattern recognition, abstraction, and algorithms.

Computational thinking is useful in many contexts, not just programming and software development and coding is becoming the new standard of literacy, with skills used in areas as varied as art and design, engineering, data analysis, and science. With industries such as gaming and esports expected to grow rapidly, this qualification develops a foundation of coding skills for your students essential for digital life and work of the future.

#### LEVEL 2

14-16 EFA

TQT 70 GLH 39

ASSESSMENT 45 min online test with 36 questions

#### WHO IS IT FOR:

- Key Stage 3 learners

# ICDL FLEXI FOR SCHOOLS

There is a wide choice of ICDL flexible units from Level 1 to Level 3, giving schools the flexibility to create qualifications of varying size and complexity around learners.

The table below shows the different units that are available at each level. These units can be compiled to create a bespoke qualification. Please contact BCS to discuss the options available to you.

Please note that Microsoft Office must be installed locally for the tests to run.

## ICDL FLEXIBLE UNITS

ICDL LEVEL 1	ICDL LEVEL 2	ICDL LEVEL 3
ICDL Essentials ICDL Award ICDL Certificate	ICDL Extra ICDL Award ICDL Certificate	ICDL Advanced ICDL Award
IT user fundamentals	Word processing	Word processing
Internet and emails	Spreadsheet software	Spreadsheet software
IT security for users	Presentation software	Presentation software
Word processing	Database	Database
Spreadsheet software	Improving productivity using IT	Improving productivity using IT
Presentation software	Project management	
Databases		
Using collaborative technologies		
Improving productivity using IT		

### BCS Level 2 Digital Pathways

The new Level 2 Digital Pathways align to time important industry roles.

Each pathway is occupationally-focused, and benefits learners by:

- Providing them with the digital skills needed in the workplace
- Providing a progression route to Level 3 apprenticeships
- Allowing them to access hundreds of new digital vacancies

- L2 Certificate for Data Support Technicians
- L2 Certificate for IT Systems Administrators
- L2 Certificate for Project Coordinators
- L2 Certificate for Digital Administrators



## BCS LEVEL 3 CERTIFICATE IN IT USER SKILLS (ICDL ADVANCED) (ITQ)

In conjunction with the ICDL Foundation, BCS is pleased to bring to the market this globally recognised ICDL qualification.

- Ofqual regulated
- 24 UCAS points to aid entry into university
- Mapped to the DigCom Framework

The qualification comprises of five modules:

- Word Processing Software
- Spreadsheet Software
- Presentation Software
- Database Software
- Improving Productivity Using IT

**Guided learning hours (GLH):** 179 hours  
**Total qualification time (TQT):** 248 hours

The qualification package includes:

- Centre courseware via e-books (optional extra) and bite-sized videos
- Assessment through online tests
- No centre marking
- Automated testing
- Instant results

### Assessment

This qualification is assessed through online or manual tests created by the ICDL Foundation and BCS and delivered using the BCS in-application assessment platform.

ICDL LEVEL 3 WAS FANTASTIC AS SINGLE UNITS FOR WELL-MOTIVATED STUDENTS WHO WISHED TO IMPROVE THEIR DIGITAL SKILLS BEFORE GOING INTO THE WORKPLACE. PLUS, SOME OF OUR STUDENTS HAVE USED IT TO HELP THEM DURING THEIR UNIVERSITY COURSES.

**Guernsey Education Department**

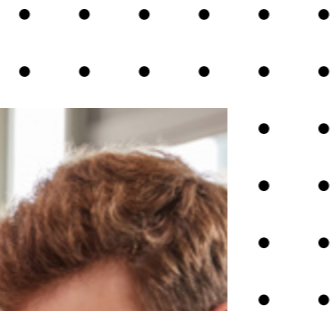
### ICDL Adult classes

Some schools - in particular those outside the state funding model - provide evening classes for the local community.

As one of the most sought after IT user qualifications in the UK and beyond, ICDL presents an ideal opportunity to generate revenue.



# BCS DIGITAL FUNCTIONAL SKILLS QUALIFICATIONS (ENTRY LEVEL 3 AND LEVEL 1)



BCS is developing new qualifications at Entry Level 3 and Level 1. These new qualifications will replace the existing Functional Skills qualifications in ICT from August 2023.

Both qualifications will focus on the following skills areas:

- Using Devices and Handling Information
- Creating and Editing
- Transacting
- Being Safe and Responsible Online
- Communicating

The Digital Functional Skills qualifications are for all learners of any age range and could be used by:

- Learners who want or need to develop their skills at E3 or L1.
- Learners looking to progress into an apprenticeship.



## TEACHING TEACHERS TECH: COMPUTING WITH PYTHON

**Teaching Teachers Tech** is an 8-week flexible programme of study, designed to give secondary school teachers, and those aspiring to go into teaching, an opportunity to improve/update their knowledge in python programming up to GCSE standard.

This programme which is usually only normally available to graduates who are on an initial Teacher Training for Computer Science, is now accessible to the wider teaching community.

**You will:**

- Develop your confidence using Python to program applications
- Learn the key programming constructs to create algorithms including sequence, selection, and iteration
- Explore the use of a range of data structures including lists
- Explore how to combine pedagogical approaches

**The following topics will be covered:**

- Box Variables
- Concatenation
- Calculations - Counters and incrementing
- Calculations - Modulo
- Selection - If, elif and else statements inc Nested
- Loops (Non-Deterministic and Counter controlled)
- Lists and Multi-dimensional lists
- Loops with lists
- Nested loops
- Functions with parameters
- Bubble sort
- Linear search

**Assignments:** You will be set four small assignments throughout the 8-week programme and given feedback to help increase your confidence developing algorithms.

**On Completion:** On completion a digital badge is awarded for Teaching Teachers Teach

[www.bcs.org/teachingteacherstech](http://www.bcs.org/teachingteacherstech)

# ESSENTIAL DIGITAL SKILLS FOR WORK (EDSQ) ENTRY LEVEL 3 / LEVEL 1

If you have students who are falling behind and struggling to keep up or staff members (who could be eligible for funding) with little or no digital know how, Essential Digital Skills for Work (EDSQ) qualifications Entry Level 3 and Level 1 will introduce learners to the digital skills essential for using workplace devices. They will develop the confidence to be able to use basic Office applications which will help learners for when they leave school, go onto college, and/or apply for jobs online.

The BCS Essential Digital Skills for Work qualifications cover all five skills areas set out in the national standards. These are:

1. Using devices and handling information.
2. Creating and editing.
3. Communicating.
4. Transactions.
5. Being safe and responsible online.

## BCS ENTRY LEVEL ESSENTIAL DIGITAL SKILLS FOR WORK

**LEVEL** Entry Level

**QAN** 603/6571/7

16-19 EFA

**OFQUAL REGULATED**

**TQT** 64 GLH 50

## BCS LEVEL 1 ESSENTIAL DIGITAL SKILLS FOR WORK

**LEVEL** 1

**QAN** 603/6958/9

14-16 EFA

**OFQUAL REGULATED**

**TQT** 64 GLH 50

Centre toolkit:

- Suggested sequence of learning and proposed activities
- Support to design your own lesson plans
- Support formative assessment and self-assessment
- Prepares learners for scenario-based In-Application tests, reflecting 'real' life digital activities for a smoother transition to transfer into workplace skills
- Additional online digital content
- Online Modules with knowledge checks at the end of each module to review progress

[www.bcs.org/edsq](http://www.bcs.org/edsq)

# WELCOME TO COMPUTING AT SCHOOL (CAS)

CAS brings together a community of teachers, academics and industry professionals spread across the UK who are enthusiastic about ensuring every child receives a world-leading computing education.

40,000 CAS MEMBERS SUPPORTED TO-DATE

The community for computing teachers will give you access to:

- Teaching Resources – Primary/Secondary
- Community events and discussion
- Coaching, CPD and support – helping educators achieve their computing education goals
- Home Learning – supporting parents with teaching computing, home materials and interactive learning games
- Careers Inspiration -helping young people make informed choices about their future
- Membership is free and open to anyone over the age of 18.

Projects and initiatives

**Barefoot**  
Computing at School

Through Barefoot, CAS inspires primary teachers to deliver the computing curriculum brilliantly with free workshops, helpful online guides and engaging lessons.

**National Centre for Computing Education**

The CAS community is proud to support the National Centre for Computing Education (NCCE) in England, with events, discussions and resources aimed at teachers.

[www.computingschool.org.uk](http://www.computingschool.org.uk)



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