

Second Draft ICT Programme of Study

Context and process

BCS, the Chartered Institute for IT, and Royal Academy of Engineering, Nov 2012

Context

In his speech to BETT on 11 January 2012, the Secretary of State for Education Michael Gove addressed criticisms about how Information and Communication Technology (ICT) is taught in England from schools, teachers, and industry leaders. He did so by starting a consultation on withdrawing the existing National Curriculum Programme of Study for ICT from 1 September 2012, to allow the development of innovative, exciting and rigorous new ICT courses, in advance of the launch of the new National Curriculum in 2014. Following consultation, the government confirmed on 11 June 2012 that its intention to proceed, and that ICT would be a compulsory subject up to Key Stage 4 with its own Programme of Study.

In late August 2012 the DfE invited BCS and the Royal Academy of Engineering to coordinate the drafting of a new Programme of Study for ICT. The following process ensued:

- A small working group wrote a first draft.
- This draft was published in late October, and written feedback was invited.
- We received helpful written feedback from many stakeholders, including
 - 16 teachers
 - 3 head teachers
 - 8 university academics
 - 6 individuals, governors and IT professionals
 - 1 international expert
 - 5 local education advisers and consultants
 - A submission from the MirandaNet group, itself the result of a consultation involving 60 contributors
- A meeting of 50 stakeholders was held in mid November. Among the participants were
 - 25 teachers (of whom about 1/3 were from primary school)
 - 2 head teachers
 - 13 university academics
 - 1 ICT adviser
 - Several members of the working group.
- A second working group used this feedback to revise the draft
- The second draft was delivered to DfE at the end of November 2012

The draft is now under revision by DfE, and will be published in the Spring of 2013 as part of a full public consultation for the whole National Curriculum. The current draft is simply the result of the working group's efforts, and is not endorsed by DfE.

The two working parties included several school teachers, together with representation from Naace¹, CAS², ITTE³, Vital⁴, and NextGen Skills⁵. The membership of the two working groups appears below.

¹ <http://www.naace.co.uk/>

² <http://www.computingatschool.org.uk>

³ <http://www.itte.org.uk>

⁴ <http://www.vital.ac.uk/>

Guidance from DfE

DfE guidance makes clear that the new Programme of Study for ICT

- Must be short: at most two sides of A4
- Should include a statement of the purpose of the subject and the aims of the programme of study.
- Should including a balance of content, along the lines of the Royal Society’s report “Shut down or restart”.
- Should cover Key Stage 1-4, with a section about each key stage
- Should encourage challenge and ambition

Terminology

The draft Programme of Study adopts the terminology of the Royal Society report “Shut down or restart”, while broadening the definitions somewhat.

Regardless of the exact terminology, the purpose of identifying the elements of digital literacy, computer science, and information technology is to ensure that each is given clear attention. We believe that all three should be taught right from the start, much like the sciences at primary school.

Supporting materials and training

A two page Programme of Study is a very small part of the puzzle: it alone absolutely will not guarantee the provision of excellent education in ICT.

- There must be a wide range of high-quality support materials, developed by various organisations and by teachers, to help teachers implement the Programme of Study in creative ways. (We do not recommend one “blessed” set of resources that all teachers feel constrained to follow.)
- There must be opportunity and resources to allow existing ICT and other teachers to enhance their subject knowledge through CPD, especially in Computer Science.
- There must be high quality training of new teachers of ICT who can effectively deliver the new Programme of Study.
- Head teachers must be given clear incentives to introduce and resource new, rigorous qualifications in ICT.
- One of the clearest themes of the feedback we received was that teachers want clear assessment targets. One teacher said “As a teacher, and a head of dept trying to put together a scheme of work, I find the assessment targets are the most important thing I need to know, as I need to make sure I allow the students the opportunity to achieve the targets in the work I set”. Although the Secretary of State has indicated that statutory attainment targets will be abolished, there is a clear call from teachers that needs some response.

Membership of the working party

The working party that wrote the first draft consisted of

- Theo Blackwell, NextGen Skills
- Miles Berry, Naace and University of Roehampton
- Mark Chambers, Naace

⁵ <http://www.nextgenskills.com/>

- Andrew Connell, ITTE and University of Keele
- Mark Dorling, Langley Grammar School
- Matthew Harrison, Royal Academy of Engineering
- Stephen Hunt, University of Hertfordshire
- Peter Kemp, Christ the King Sixth Form College
- Bill Mitchell, BCS
- Rhys Morgan, Royal Academy of Engineering
- Nevita Pandya, Townley Grammar School for Girls
- Simon Peyton Jones (chair), Microsoft Research and Chair of CAS
- Shahneila Saeed, Graveney School
- Peter Twining, Vital and Open University
- Matthew Walker, Rodborough School

The working party that developed the second draft consisted of

- Phil Bannister, Department for Education
- Miles Berry, Naace and University of Roehampton
- Theo Blackwell, NextGen Skills
- Mark Chambers, Naace
- Andrew Connell, ITTE and University of Keele
- Quintin Cutts, University of Glasgow
- Mark Dorling, Langley Grammar School
- Andrew Eland, Google
- Bob Harrison, Toshiba Information Systems and Teaching Schools
- Matthew Harrison, Royal Academy of Engineering
- Carrie Hartnell, Intellect
- Graham Hastings, St Johns College School, Cambridge
- Simon Humphreys, Computing at School
- Peter Kemp, TeachFirst, Christ the King Sixth Form College
- John Lazar, Metaswitch
- Jeff Magee, Imperial College London
- Niel Mclean, FutureLab
- Peter McOwan, Queen Mary University of London, CS4FN
- Bill Mitchell, BCS
- Rhys Morgan, Royal Academy of Engineering
- Sue Nieland, e-Skills UK
- Simon Peyton Jones (chair), Microsoft Research and Chair of CAS