

advice

evidence

standard

ICT, amenability and the BBC digital
curriculum service in Wales

Supplement 3



Becta

British Educational Communications
and Technology Agency

This is Supplement 3 to Becta's report to the DCMS: *ICT, amenability and the BBC digital curriculum service in Wales*. This supplement contains findings on the amenability in those subjects to be resourced and launched by the BBC as part of its digital curriculum service in 2008. Findings on amenability of subjects to be launched by the BBC in 2006/7 can be found in the annex to Becta's report to the DCMS, and in Supplements 1 and 2 to the report.

Becta would like to thank DELLS (Department for Education, Lifelong Learning and Skills) for its assistance in the assessment of amenability in these subjects. Please note that ACCAC, the organisation Becta previously worked with on ICT and amenability, was merged with DELLS on April 1 2006.

Findings on the following subjects are contained within this supplement:

Key Stage 1

Geography
Religious Education

Key Stage 2

Design and technology

Key Stage 3

Art
Physical education
Personal and Social Education (also covers Key Stage 4)
Thinking skills (also covers Key Stage 4)

Key Stage 4

Citizenship
Welsh

GCSE

Applied ICT
Art and design
Engineering
Health and social care
History
Hospitality and catering
Music

1a) Geography at Key Stage 1

Geography at Key Stage 1 is organised into two sections:

- Geographical enquiry and skills
- Places.

The first of these, Geographical enquiry and skills, describes a set of 'holistic' or 'integrated' skills. Good pedagogy demands that these should be taught and learned in an integrated fashion as described in section 4.3.4, and for the reasons given in section 4.5, these skills are not included in the list of learning outcomes against which the 50 per cent would be measured.

The remaining outcomes in Places have been examined for amenability. These requirements are interdependent and are unlikely to be taught in isolation. For example, 2.3, 'Why is the locality like this?' involves requirement 2.2, 'What is the locality like?.'

We also note that while 1.5 'observe and collect information in the field' might be considered non-amenable at first sight, ICT-mediated resources might reasonably be developed to prepare and support fieldwork, and consolidate and extend it after the fieldwork has been undertaken.

Measuring 50 per cent

The BBC may select up to 50 per cent of those outcomes deemed amenable by Becta. These 'countable' learning outcomes do not include the 'Geographical enquiry and skills' section, as mentioned above. As stated in section 4.5 of the report, the BBC is free to treat these skills in their resources, but they will not be counted towards the 50 per cent, as this would constitute double counting of the underlying requirements.

Amenability statement

There are no outcomes judged to be not amenable in the programme of study for Wales in geography at Key Stage 1.

In this case, as elsewhere, Becta's judgement on the amenability of learning outcomes should not be interpreted as a requirement or recommendation that they should be taught or supported by ICT-based resources.

Context

For the purpose of fulfilling the DCMS remit, Becta has considered the question of ICT amenability of learning outcomes on a case by case basis, in order to judge which learning outcomes are and are not amenable in this context. Those judged to be not amenable lie outside the scope of the proposed BBC digital curriculum service.

Becta maintains that any judgements reached on the ICT amenability of learning outcomes are made for the purposes of this exercise only and are restricted to use in this context. Any judgements made by Becta do not imply that 'amenable' learning outcomes *should* be taught by ICT, nor do they imply any view on *how much* ICT is appropriate for any key stage in any subject.

Indeed, Becta recognises that a curriculum should not be learned or taught solely via ICT, as ICT resources alone do not provide the range of learning experiences that amount to a broad and balanced curriculum. Even where it may find a subject to be wholly amenable in relation to the learning outcomes considered, Becta does not wish to suggest or imply in any way that a subject could or should be resourced entirely by ICT. For all subjects, an appropriate balance should be struck between the time pupils spend at the screen and the time spent elsewhere.

1b) Religious Education at Key Stage 1

We refer to the document *An Exemplar Framework for Religious Education* (ACCAC, 2001) throughout this note.

In the exemplar programme of study for Key Stage 1, pupils are expected to be taught about a variety of matters including beliefs, teachings, worship and fundamental moral questions. These elements are generally inter-related. For example, in order for children to be taught to:

recognise that religion has changed the lives of people both past and present.

It is likely that they will also explore:

religious stories from the past and present, including, where appropriate, selected passages from holy books.

Equally, knowledge of religious buildings, celebrations, texts, customs and so on will develop collectively. Taken together, the requirements of the exemplar programme of study at Key Stage 1 describe a set of holistic knowledge and skills of the type described in section 4.3.4. Since pupils develop these skills and knowledge in the context of each other, to require the BBC digital curriculum to deal with some of them, but not others, would be to require it to produce pedagogically unsound resources.

Measuring the 50 per cent

Becta will consult with DELLS in assessing the BBC's detailed proposals for Religious Education at Key Stage 1 with regard to the 50 per cent limit.

Amenability statement

Based on the inspection of individual outcomes and an assessment of the role of ICT in the holistic development of skills in Key Stage 1 Religious Education (*An Exemplar Framework for Religious Education*), Becta finds that there are no outcomes in the exemplar framework judged to be not amenable to ICT.

In this case, as elsewhere, Becta's judgement on the amenability of learning outcomes should not be interpreted as a requirement or recommendation that they should be taught or supported by ICT-based resources.

Context

For the purpose of fulfilling the DCMS remit, Becta has considered the question of ICT amenability of learning outcomes on a case by case basis, in order to judge which learning outcomes are and are not amenable in this context. Those judged to be not amenable lie outside the scope of the proposed BBC digital curriculum service.

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Indeed, Becta recognises that a curriculum should not be learned or taught solely via ICT, as ICT resources alone do not provide the range of learning experiences that amount to a broad and balanced curriculum. Even where it may find a subject to be wholly amenable in relation to the learning outcomes considered, Becta does not wish to suggest or imply in any way that a subject could or should be resourced entirely by ICT. For all subjects, an appropriate balance should be struck between the time pupils spend at the screen and the time spent elsewhere.

In addition, while a learning outcome may be judged amenable, it is still the case that any particular learning or teaching resource developed may or may not be effective and appropriate.

2a) Design and Technology at Key Stage 2

The learning requirements for design and technology at Key Stage 2 can be considered in two broad groups. These are the skills components of:

- designing skills
- making skills

and

- knowledge and understanding.

The requirements have been examined for amenability. Together, the requirements in the first group describe a set of inter-related 'holistic' skills of the type described in section 4.3.4 in *ICT, amenability and the BBC digital curriculum service in Wales*. Since pupils develop these skills in the context of each other – for example, redesigning to take account of problems with making – to require the BBC digital curriculum service to deal with some of them, but not others, would be to require it to produce pedagogically unsound resources.

Measuring 50 per cent

The BBC may select up to 50 per cent of the outcomes in the 'knowledge and understanding' sections of the programme of study.

Amenability statement

Based on both the inspection of individual outcomes and an assessment of the role of ICT in the holistic development of skills in Key Stage 2 design and technology, Becta judges that there are no outcomes that are not amenable to ICT in the programme of study for Wales in design and technology at Key Stage 2.

In this case, as elsewhere, Becta's judgement on the amenability of learning outcomes is restricted to the purposes of this exercise and should not be interpreted as a requirement or recommendation that they should be taught or supported by ICT-based resources.

Context

For the purpose of fulfilling the DCMS remit, Becta has considered the question of ICT amenability of learning outcomes on a case by case basis, in order to judge which learning outcomes are and are not amenable in this context. Those judged to be not amenable lie outside the scope of the proposed BBC digital curriculum service.

Becta maintains that any judgements reached on the ICT amenability of learning outcomes are made for the purposes of this exercise only and are restricted to use in this context. Any judgements made by Becta do not imply that 'amenable' learning outcomes *should* be taught by ICT, nor do they imply any view on *how much* ICT is appropriate for any key stage in any subject.

Indeed, Becta recognises that a curriculum should not be learned or taught solely via ICT, as ICT resources alone do not provide the range of learning experiences that amount to a broad and balanced curriculum. Even where it may find a subject to be wholly amenable in relation to the learning outcomes considered, Becta does not wish to suggest or imply in any way that a subject could or should be resourced entirely by ICT. For all subjects, an appropriate balance should be struck between the time pupils spend at the screen and the time spent elsewhere.

In addition, while a learning outcome may be judged amenable, it is still the case that any particular learning or teaching resource developed may, or may not, be effective and appropriate.

3a) Art at Key Stage 3

The learning requirements for art at Key Stage 3 are set out in the following sections of the programme of study:

- Understanding
- Making
- Investigating.

It would not be appropriate (or possible) to undertake the teaching and learning of every aspect of art through the medium of ICT, particularly in terms of the range of experiences that should be available to pupils. For example, developing knowledge and understanding of materials could not be developed solely through the medium of ICT. However, it is the case that ICT-based resources might be used to consolidate, extend and apply learning and further develop ideas, for example:

Pupils should be taught to explore and experiment with materials, images and ideas.

Art, Key Stage 3, 2.2

ICT could support development of this requirement, for example by supporting the investigation of different uses of a material. Furthermore, it is worth pointing out the holistic nature of the art programme of study, and in particular the inter-relationships of the skills relating to understanding, investigating and making.

The requirements have been examined for amenability. Together, the requirements in the first group describe a set of inter-related 'holistic' skills of the type described in section 4.3.4. Since pupils develop these skills in the context of each other – for example, 'explor[ing] the diverse ways that artists, craftworkers and designers from different cultures and periods work' (1.2) in relation to 'extending their work, methods and results of their investigation, modifying and refining their work through discussion and reflection' (1.3) – to require the BBC digital curriculum service to deal with some of them, but not others, would be to require it to produce pedagogically unsound resources.

Measuring 50 per cent

The requirements for art at Key Stage 3 form a set of holistic or integrated skills as described in section 4.3.4. As described in section 4, much of the information required to establish the 50 per cent measures is contained in custom and practice and national expectation.

Becta will look to DELLS for advice when reviewing the BBC's commissioning plans for resources in art.

Amenability statement

Based on both the inspection of individual outcomes and an assessment of the role of ICT in the holistic development of skills in Key Stage 3 art, Becta judges that there are no outcomes that are not amenable to ICT in the programme of study at Key Stage 3.

In this case, as elsewhere, Becta's judgement on the amenability of learning outcomes is restricted to the purposes of this exercise and should not be interpreted as a requirement or recommendation that they should be taught or supported by ICT-based resources.

Context

For the purpose of fulfilling the DCMS remit, Becta has considered the question of ICT amenability of learning outcomes on a case by case basis, in order to judge which learning outcomes are and are not amenable in this context. Those judged to be not amenable lie outside the scope of the proposed BBC digital curriculum service.

Becta maintains that any judgements reached on the ICT amenability of learning outcomes are made for the purposes of this exercise only and are restricted to use in this context. Any judgements made by Becta do not imply that 'amenable' learning outcomes *should* be taught by ICT, nor do they imply any view on *how much* ICT is appropriate for any key stage in any subject.

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In addition, while a learning outcome may be judged amenable, it is still the case that any particular learning or teaching resource developed may, or may not, be effective and appropriate.

3b) Physical Education (PE) at Key Stage 3

The effective use of ICT in this subject can help learners make the most of their entitlement to PE rather than take away from their opportunities to practise and develop knowledge and skills through a range of activities. This is an important principle in the context of determining the amenability of learning outcomes within the PE curriculum to being taught by ICT.

The programme of study outlines the following main areas of activity:

- Games
- Gymnastic activities
- Dance
- Swimming
- Athletic activities
- Outdoor and adventurous activities.

Also included is a set of outcomes, *health-related exercise*, that are applicable to all the above activities. These outcomes are broadly holistic, as they are not intended to be developed in isolation from the activities undertaken through the key stage, but integrated.

Some of the statements within the programme of study do not lend themselves individually to being taught via ICT (e.g. 'perform dances showing control!'). However, there is a variety of ways in which ICT can, support the overarching outcome of developing capability in dance such as through resources demonstrating techniques, supplementing verbal feedback and developing learners' observational and evaluative assessment.

Measuring 50 per cent

Becta will consult with DELLS in assessing the BBC's coverage proposals for Key Stage 3 PE, since much of the information required to establish the 50 per cent measures is contained in custom and practice and national expectation.

Amenability statement

Based on both the inspection of the individual outcomes and an assessment of the role of ICT in the holistic development of skills in Key Stage 3 PE, Becta judges that there are no outcomes that are not amenable in the programme of study.

In this case, as elsewhere, Becta's judgement on the amenability of learning outcomes is restricted to the purposes of this exercise and should not be interpreted as a requirement or recommendation that they should be taught or supported by ICT-based resources.

Context

For the purpose of fulfilling the DCMS remit, Becta has considered the question of ICT amenability of learning outcomes on a case by case basis, in order to judge which learning outcomes are and are not amenable in this context. Those judged to be not amenable lie outside the scope of the proposed BBC digital curriculum service.

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In addition, while a learning outcome may be judged amenable, it is still the case that any particular learning or teaching resource developed may or may not be effective and appropriate.

3c) Personal and Social Education (PSE) at Key Stage 3

Guidelines for PSE are presented in the *Personal and Social Education Framework* published by ACCAC (2001). The guidelines for Key Stage 3 are set out in three sections:

- Attitudes and values
- Skills
- Knowledge and understanding.

The outcomes in the first two sections are of the type described in section 4.3.4 of Becta's report to the DCMS; they are holistic or integrated skills for which good pedagogy demands that they be taught and learned in an integrated fashion. For the reasons given in section 4.5 these are considered amenable for the purpose of the exercise, but are not included in the assessment of 50 per cent.

The outcomes under Knowledge and Understanding are somewhat more discrete in focus, being set out under a number of distinct 'aspects': social, community, physical, sexual, emotional, spiritual, moral, vocational, learning. The physical aspect, for example, includes: 'Know the effects of and risks from use of legal and illegal drugs (including alcohol and tobacco) and laws governing their use'. Overall, it is very likely that ICT would be a valuable tool, as a source of information, and for example in modelling contexts and moral and social scenarios that are covered under the different aspects.

Measuring 50 per cent

Becta will consult with DELLS in assessing the BBC's coverage proposals for PSE at Key Stage 3, since much of the information required to establish the 50 per cent measures is contained in custom and practice and national expectation.

Amenability statement

Becta finds that there are no outcomes judged to be not amenable to ICT.

In this case, as elsewhere, Becta's judgement on the amenability of learning outcomes is restricted to the purposes of the exercise and should not be interpreted as a requirement or recommendation that they should be taught or supported by ICT-based resources.

Context

For the purpose of fulfilling the DCMS remit, Becta has considered the question of ICT amenability of learning outcomes on a case by case basis, in order to judge which learning outcomes are and are not amenable in this context. Those judged to be not amenable lie outside the scope of the proposed BBC digital curriculum service.

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In addition, while a learning outcome may be judged amenable, it is still the case that any particular learning or teaching resource developed may, or may not, be effective and appropriate.

3d) Thinking skills, 11–16

There are three main ways in which thinking skills are currently taught in Wales:

- Teaching *of* thinking (direct teaching of generic thinking skills outside subject areas (stand-alone courses)), e.g. Philosophy for Children, Accelerated Learning, Somerset Thinking Skills
- Teaching *through* thinking. This uses methods to promote thinking in subject contexts (stand-alone courses), e.g. Intervention programmes, CASE, CAME, Thinking through History
- Cross-curricular *infusion*. Restructuring lessons in subjects to provide teaching of thinking skills, e.g. ACTS, Thinking for Learning (Cardiff LEA).

Thinking skills can be defined as patterns of thinking that help learners go beyond the mere recall of information and enable them to explore and make sense of their world, to reason and solve problems, as well as to plan, create and invent. Although we are all born with a capability to think, there is ample evidence that we can learn to think more skilfully. Thinking skills refer to processes of thinking and learning in a wide range of contexts, not just in school. Developing thinking skills is part of 'learning to learn'.

ICT can be a very useful and powerful tool in helping to develop quality thinking and learning, for example in developing decision-making skills and in developing questioning skills. Although there are differing views on how computers can be used most effectively in the development of thinking skills, it is clear that ICT has a role to play in developing the quality of thinking whether, for example, as a tool, stimulus, or source of information.

Measuring 50 per cent

Given that thinking skills is not a subject in its own right, for the reasons given in section 4.5 of Becta's report it is not appropriate to include these skills in determining the 50 per cent.

However, in its approach to thinking skills it is important that any additional subject content that the BBC might provide to support the development of thinking skills does not, in sum with any subject content already planned or provided in that subject and key stage, breach the limit of 50 per cent in total.

Amenability statement

Given the nature of thinking skills, it is appropriate to consider them as amenable to ICT for the reasons given in section 4.3.4 of Becta's report to the DCMS.

In this case, as elsewhere, Becta's judgement on the amenability of learning outcomes is restricted to the purposes of this exercise and should not be interpreted as a requirement or recommendation that they should be taught or supported by ICT-based resources.

Context

For the purpose of fulfilling the DCMS remit, Becta has considered the question of ICT amenability of learning outcomes on a case by case basis, in order to judge which learning outcomes are and are not amenable in this context. Those judged to be not amenable lie outside the scope of the proposed BBC digital curriculum service.

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In addition, while a learning outcome may be judged amenable, it is still the case that any particular learning or teaching resource developed may or may not be effective and appropriate.

4a) Citizenship at Key Stage 4

Although there is no curriculum subject titled 'Citizenship' in Wales, elements of the PSE curriculum as well as other guidance provided by DELLS are relevant. Guidance on global citizenship has also been issued (ACCAC, 2002).

Within the PSE framework, the learning outcomes under the heading of ‘community aspect’ are particularly relevant:

- Know how democratic systems work and understand how individual citizens, public opinion, lobby groups, and the media can contribute and have an influence and impact
- Understand how Government evolves and affects individuals
- Have a developing global awareness of contemporary issues and events including human rights and sustainable development.

Clearly ICT has a significant role to play in the development of knowledge and understanding of these topics, particularly as a source and tool for research into democratic systems, the working of government and global citizenship topics. It is also very likely to be valuable to the development of skills relevant to the PSE framework and to the theme of Citizenship, for example, communication, analysis and enquiry skills.

Measuring 50 per cent

Becta will look to DELLS for advice in assessing the BBC’s commissioning plans in making the determination of 50 per cent.

Amenability statement

Within the relevant aspects of the Key Stage 4 PSE framework (community aspect), Becta finds that there are no outcomes judged to be not amenable to being taught by ICT.

In this case, as elsewhere, Becta’s judgement on the amenability of learning outcomes is restricted to the purposes of this exercise and should not be interpreted as a requirement or recommendation that they should be taught or supported by ICT-based resources.

Context

For the purpose of fulfilling the DCMS remit, Becta has considered the question of ICT amenability of learning outcomes on a case by case basis, in order to judge which learning outcomes are and are not amenable in this context. Those judged to be not amenable lie outside the scope of the proposed BBC digital curriculum service.

Becta maintains that any judgements reached on the ICT amenability of learning outcomes are made for the purposes of this exercise only and are restricted to use in this context. Any judgements made by Becta do not imply that ‘amenable’ learning outcomes *should* be taught by ICT, nor do they imply any view on *how much* ICT is appropriate for any key stage in any subject.

Indeed, Becta recognises that a curriculum should not be learned or taught solely via ICT, as ICT resources alone do not provide the range of learning experiences that amount to a broad and balanced curriculum. Even where it may find a subject to be wholly amenable in relation to the learning outcomes considered, Becta does not wish to suggest or imply in any way that a subject could or should be resourced entirely by ICT. For all subjects, an appropriate balance should be struck between the time pupils spend at the screen and the time spent elsewhere.

In addition, while a learning outcome may be judged amenable, it is still the case that any particular learning or teaching resource developed may, or may not, be effective and appropriate.

4b) Welsh and Welsh Second Language at Key Stage 4

The nature of language learning is such that there is constant interplay between different skills. While it is possible to focus on one aspect of language learning at a particular time, other skills inevitably come into play; otherwise the language learning experience would be unnaturally distorted.

The learning outcomes for Welsh (1st and 2nd language) at Key Stage 4 are divided into three attainment targets: *oracy, reading and writing*. The outcomes (excluding *range*) have been examined for amenability. It should also be noted that in both of the Welsh orders, emphasis is placed on viewing, listening and responding to audio and visual stimuli, which is clearly of relevance to ICT and digital content (Welsh language viewing materials, for example).

In *oracy*, much of the skills section (2) might be considered non-amenable if taken in isolation and out of context. While it would be difficult to argue that all the outcomes under these headings could be taught via ICT, it is clear that ICT might be used to support and extend the learning. Furthermore, many of these requirements address key aspects of the subject, and describe 'holistic' or 'integrated' skills that are part of effective learning in the subject (for example, listening and responding). Given these considerations, it is appropriate to judge these learning outcomes as amenable to ICT, but for the reasons given in section 4.5 these outcomes are excluded from the assessment of 50 per cent.

Measuring 50 per cent

The requirements for Welsh form a set of holistic or integrated skills as described in section 4.3.4. As stated in section 4, much of the information required to establish the 50 per cent measures is contained in custom and practice and national expectation.

Becta will look to DELLS for detailed advice when reviewing the BBC's commissioning plans for resources in Welsh at Key Stage 4.

Amenability statement

Becta finds that there are no outcomes judged to be not amenable in the Welsh 1st and 2nd language programmes of study at Key Stage 4.

In this case, as elsewhere, Becta's judgement on the amenability of learning outcomes is restricted to the purposes of this exercise and should not be interpreted as a requirement or recommendation that they should be taught or supported by ICT-based resources.

Context

For the purpose of fulfilling the DCMS remit, Becta has considered the question of ICT amenability of learning outcomes on a case by case basis, in order to judge which learning outcomes are and are not, amenable in this context. Those judged to be not amenable lie outside the scope of the proposed BBC digital curriculum service.

Becta maintains that any judgements reached on the ICT amenability of learning outcomes are made for the purposes of this exercise only and are restricted to use in this context. Any judgements made by Becta do not imply that 'amenable' learning outcomes *should* be taught by ICT, nor do they imply any view on *how much* ICT is appropriate for any key stage in any subject.

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In addition, while a learning outcome may be judged amenable, it is still the case that any particular learning or teaching resource developed may, or may not, be effective and appropriate.

5a) **Applied ICT at GCSE**

The learning requirements for Applied ICT at GCSE are set out in the subject criteria developed by ACCAC and approved for teaching by the regulatory authorities in Wales, England and Northern Ireland. These requirements have been examined for amenability.

The subject content of the GCSE in applied ICT is set out in the following three units:

- ICT tools and applications
- ICT in organisations
- ICT and society.

It is fundamental to the purpose of the course that learners utilise ICT throughout their study. The specification is intended to develop a broad range of ICT uses, skills and knowledge in vocational contexts. Candidates should experience ICT in the environment – for example in workplaces, organisations and society.

There is a significant quantity of subject content also, including work on a wide range of ICT tools and applications. ICT learning resources are likely to be valuable to candidates. Candidates are also required to learn about why and how companies use ICT, and again it is likely that ICT-based learning resources will be valuable to learners.

Measuring 50 per cent

In this subject, the GCSE syllabuses must be used as the basis for the determination of 50 per cent.

Amenability statement

Becta finds that there are no outcomes judged to be not amenable to ICT.

In this case, as elsewhere, Becta's judgement on the amenability of learning outcomes is restricted to the purposes of this exercise and should not be interpreted as a requirement or recommendation that they should be taught or supported by ICT-based resources.

Context

For the purpose of fulfilling the DCMS remit, Becta has considered the question of ICT amenability of learning outcomes on a case by case basis, in order to judge which learning outcomes are and are not, amenable in this context. Those judged to be not amenable lie outside the scope of the proposed BBC digital curriculum service.

Becta maintains that any judgements reached on the ICT amenability of learning outcomes are made for the purposes of this exercise only and are restricted to use in this context. Any judgements made by Becta do not imply that 'amenable' learning outcomes *should* be taught by ICT, nor do they imply any view on *how much* ICT is appropriate for any key stage in any subject.

Indeed, Becta recognises that a curriculum should not be learned or taught solely via ICT, as ICT resources alone do not provide the range of learning experiences that amount to a broad and balanced curriculum. Even where it may find a subject to be wholly amenable in relation to the learning outcomes considered, Becta does not wish to suggest or imply in any way that a subject could or should be resourced entirely by ICT. For all subjects, an appropriate balance should be struck between the time pupils spend at the screen and the time spent elsewhere.

In addition, while a learning outcome may be judged amenable, it is still the case that any particular learning or teaching resource developed may, or may not, be effective and appropriate.

5b) Art and design at GCSE

The learning requirements for art and design at GCSE are set out in the subject criteria developed by ACCAC and approved for teaching by the regulatory authorities in Wales, England, and Northern Ireland. These criteria have been examined for amenability to ICT.

The ranges of skills associated with the learning and teaching of art and design such as evaluating, appreciating, responding and so on, are of the sort described in section 4.3.4 for which good pedagogy demands that they be taught and learnt in an integrated fashion. For the reasons given in section 4.5 such skills are not included in the 50 per cent assessment.

In terms of knowledge and understanding, candidates are required to study: how ideas, meanings and feelings are conveyed in images and art works; processes of craft and design in their chosen areas of study; the social, cultural and historical contexts of art and artifacts; a variety of approaches, methods and intentions relating to continuity and change in their areas of study. In all these areas, ICT is likely to be a valuable tool and resource for study, or in some instances, an object of study in its own right – for example in relation to craft and design processes involving ICT.

Measuring 50 per cent

In this subject, the GCSE subject criteria (syllabuses) must be used as the basis for the determination of the 50 per cent.

Amenability statement

Becta finds that there are no outcomes judged to be not amenable to ICT.

In this case, as elsewhere, Becta's judgement on the amenability of learning outcomes is restricted to the purposes of the exercise and should not be interpreted as a requirement or recommendation that they should be taught or supported by ICT-based resources.

Context

For the purpose of fulfilling the DCMS remit, Becta has considered the question of ICT amenability of learning outcomes on a case by case basis, in order to judge which learning outcomes are and are not amenable in this context. Those judged to be not amenable lie outside the scope of the proposed BBC digital curriculum service.

Becta maintains that any judgements reached on the ICT amenability of learning outcomes are made for the purposes of this exercise only and are restricted to use in this context. Any judgements made by Becta do not imply that 'amenable' learning outcomes *should* be taught by ICT, nor do they imply any view on *how much* ICT is appropriate for any key stage in any subject.

Indeed, Becta recognises that a curriculum should not be learned or taught solely via ICT, as ICT resources alone do not provide the range of learning experiences that amount to a broad and balanced curriculum. Even where it may find a subject to be wholly amenable in relation to the learning outcomes considered, Becta does not wish to suggest or imply in any way that a subject could or should be resourced entirely by ICT. For all subjects, an appropriate balance should be struck between the time pupils spend at the screen and the time spent elsewhere.

In addition, while a learning outcome may be judged amenable, it is still the case that any particular learning or teaching resource developed may, or may not, be effective and appropriate.

5c) **Engineering at GCSE**

Engineering is one of a number of vocational GCSEs. The subject criteria have been developed by QCA and approved for teaching by the regulatory authorities in Wales, England, Northern Ireland and Wales. The specification is designed to introduce and to develop the required broad technical knowledge, skills and understanding in the subject. The requirements for knowledge, skills and understanding have been examined for amenability.

The specification consists of three assessed units:

- Design and graphical communication
- Engineered products
- Application of technology.

There is a substantial range of content including learning about materials and technologies which is required in the units. This fact underlines one of the potential uses of ICT - as a tool for research and as a source of information.

It should also be clearly noted that in coming to judgements about the amenability of the requirements of the specification, the vocational GCSE requires learners to be involved in the design and making of real products. ICT has a notable role to play in this as the specifications require that learners must be able to use computer-aided design (CAD) and link it to computer-aided manufacture (CAM).

Overall, it is reasonable to conclude that ICT in various forms will frequently be useful and often essential to learners.

Measuring 50 per cent

In this subject the GCSE specification (syllabuses) must be used in the determination of 50 per cent.

Amenability statement

Becta finds that there are no outcomes judged to be not amenable in the specification.

In this case, as elsewhere, Becta's judgement on the amenability of learning outcomes is restricted to the purposes of this exercise and should not be interpreted as a requirement or recommendation that they should be taught or supported by ICT-based resources.

Context

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In addition, while a learning outcome may be judged amenable, it is still the case that any particular learning or teaching resource developed may, or may not, be effective and appropriate.

5d) Health and Social Care at GCSE

The learning requirements for Health and Social Care at GCSE are set out in the subject criteria developed by ACCAC and approved for teaching by the regulatory authorities in Wales, England and Northern Ireland. These requirements have been examined for their amenability to ICT.

GCSE syllabuses in this subject must include the following three units:

- Health, Social Care, and Early Years Provision
- Promoting Health and Well-being
- Understanding Personal Development and Relationships.

Each of these units contains knowledge, skills and understanding requirements. Given the range of knowledge, skills and understanding required in the units, it is certainly the case that ICT offers significant opportunities for learners: for example, as a source of information, as a research tool, to model situations and contexts and so on.

Overall, the specification requires that learners investigate many areas of health and care including policy, and therefore it is very likely that ICT will be a key resource for learners.

Measuring 50 per cent

In this subject the GCSE specification (syllabuses) must be used in the determination of 50 per cent.

Amenability statement

Becta finds that there are no outcomes judged to be not amenable in the specification.

In this case, as elsewhere, Becta's judgement on the amenability of learning outcomes is restricted to the purposes of this exercise and should not be interpreted as a requirement or recommendation that they should be taught or supported by ICT-based resources.

Context

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In addition, while a learning outcome may be judged amenable, it is still the case that any particular learning or teaching resource developed may, or may not, be effective and appropriate.

5e) History at GCSE

The learning requirements for history at GCSE are set out in the subject criteria developed by ACCAC/QCA and approved for teaching by the regulatory authorities in England, Northern Ireland, and Wales. These criteria have been examined for amenability to ICT.

There is more than one syllabus available for GCSE history. WJEC offers three GCSE specifications as options: A (In-depth and outline studies of Welsh/English and World History), B (Themes and aspects in nineteenth and twentieth century Welsh/English and World History), and C (Short course). Clearly there is a significant range of content that can be supported by ICT, especially as a tool for research and presentation.

The ranges of skills associated with the learning and teaching of history such as investigation, interpretation, critical examination of sources and so on, are of the sort described in section 4.3.4 for which good pedagogy demands that they be taught and learnt in an integrated fashion. For the reasons given in section 4.5 such skills are not included in the 50 per cent measures.

Measuring 50 per cent

In this subject, the GCSE subject criteria (syllabuses) must be used as the basis for the determination of the 50 per cent.

Amenability statement

Becta finds that there are no outcomes judged to be not amenable to ICT.

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Context

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In addition, while a learning outcome may be judged amenable, it is still the case that any particular learning or teaching resource developed may, or may not, be effective and appropriate.

5f) **Hospitality and catering at GCSE**

The learning requirements for Hospitality and Catering GCSE are set out in the WJEC syllabus and approved for teaching by the regulatory authorities in Wales, England and Northern Ireland. The requirements have been examined for amenability.

As with all vocational subjects, the ability to apply skills, knowledge and understanding to real working contexts are central. The requirement in the specification for a wide range of knowledge, skills and understanding to be developed in work-related contexts strongly suggests a valuable role for ICT-based resources. In addition, ICT systems and uses are a significant feature in many real world hospitality and catering contexts - a fact which further underlines the importance of ICT to learners taking the course. While ICT is not a substitute for practical experience (such as in food preparation), ICT can support the development of associated knowledge and understanding such as relevant terminology, processes, standards and the common health, safety and hygiene hazards.

Measuring 50 per cent

This qualification is available as a single (1 GCSE) or double (2GCSE) award. In this subject the specification produced by WJEC for each award must be used as the basis for the determination of 50 per cent.

Amenability statement

Becta finds that there are no outcomes judged to be not amenable to ICT.

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Context

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In addition, while a learning outcome may be judged amenable, it is still the case that any particular learning or teaching resource developed may, or may not, be effective and appropriate.

5g) Music at GCSE

The learning requirements for music at GCSE are set out in the GCSE subject criteria set out by ACCAC and approved for teaching by the regulatory authorities in Wales, England and Northern Ireland. The requirements have been examined for amenability.

Building on the programmes of study at Key Stages 1–3, the skills of performing, composing and appraising are fundamental to GCSE. These skills are holistic or integrated skills of the type described in section 4.3.4, and for the reasons given in section 4.5 are not included in the 50 per cent assessment.

Content for study in music at GCSE specifications is set out in ‘areas of study’, at least two of which must be based on the Western classical tradition; one area of study must draw together at least two different cultures (e.g. Indian raga, African music); and at least one area of study must be used to develop an understanding of the impact of ICT in music. It is certainly the case that ICT has considerable potential to support learning in all areas of content. In addition ICT is already widely used in performance, appraisal and composition through a variety of online resources, tools for composition, editing and so on.

Measuring 50 per cent

In this subject the GCSE specification (syllabuses) must be used as the basis for the determination of 50 per cent.

Amenability statement

Becta finds that there are no outcomes judged to be not amenable to ICT.

In this case, as elsewhere, Becta’s judgement on the amenability of learning outcomes is restricted to the purposes of the exercise and should not be interpreted as a requirement or recommendation that they should be taught or supported by ICT-based resources.

Context

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evidence advice standard



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