

advice

ICT, amenability and the BBC digital
curriculum service in Scotland

Supplement 2



British Educational Communications
and Technology Agency

This is supplement no.2 to Becta's report to the DCMS: *ICT, amenability and the BBC digital curriculum service in Scotland*. This supplement contains findings on amenability in those subjects to be resourced and launched by the BBC as part of its digital curriculum service in 2007. Findings on amenability of subjects to be launched by the BBC in 2006 can be found in the annex to Becta's report to the DCMS, and in supplement no.1 of the report.

Becta would like to thank Learning and Teaching Scotland (LTS) for its assistance in the assessment of amenability in these subjects.

Findings on the following subjects are contained within this supplement:

Age range 7–11

Art and Design
MFL
Thinking skills (*5–11*)

Age range 11–14

Citizenship
English
Environmental studies (*historical studies*)
Mathematics
Expressive arts (*music*)
Religious Education
Science
Work-related education

Age range 14–16

Child Development
Craft and design
Drama
Geography
Mathematics
Media Studies
Modern languages
Physical Education
Religious Education
Science
Travel and tourism

Annex

1a) Art and Design, 9–11 (Level B–D)

Art and design forms part of Expressive Arts and is described in the document *Expressive Arts 5–14*. It is divided into three aspects:

- Using materials, techniques, skills and media
- Expressing feelings, ideas, thoughts and solutions
- Evaluating and appreciating.

Since pupils' understanding of visual and tactile qualities is developed through physical experience and interaction, there are many elements of art and design that it would be inappropriate to teach or learn exclusively through the medium of ICT; for example:

Pupils should be encouraged to explore the structure of natural and man-made objects, e.g. feathers, shells, plants, clockwork mechanism, tools, bicycles.

Art and Design, Investigating Visually and Recording

However, it is the case that ICT-based resources might reasonably be used to develop, consolidate and extend understanding of structures, textures and so on.

The requirements have been examined for amenability. Together, the requirements set out under the second aspect describe a set of inter-related holistic skills of the type described in section 4.3.4 of *ICT, amenability and the BBC digital curriculum service in Scotland*. Since pupils develop these skills in the context of each other – for example, identifying a problem may be part of the *Preparing for tasks* strand or of the *Reviewing and reporting on tasks* strand – 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%

Becta will consult with Learning and Teaching Scotland in assessing the BBC's coverage proposals for level B–D Art and Design 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 individual outcomes and an assessment of the role of ICT in learning in Art and Design, 9–11, Becta judges that there are no outcomes that are not amenable to ICT in the requirements for Art and Design.

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 age range 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. Becta strongly recommends that the BBC, as it moves forward with its planning, takes account of the advice provided in the sections of the 5–14 national guidelines on teaching and learning using IT.

1b) Modern languages 5–14, age range 7–11, levels A–B

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 guidelines for modern languages at levels A–B are structured in four sections:

- Listening
- Speaking
- Reading
- Writing.

The attainment targets at levels A and B are drawn from other 5–14 guidelines: English language, Gaelic, Mathematics, Expressive arts, and Environmental studies. However, within the context of language learning, these guidelines comprise a set of holistic or integrated skills; to require the BBC digital curriculum service to deal with up to 50 per cent of these, but not deal with the others (for example, to address aspects of listening but not speaking), would be to require it to produce pedagogically unsound resources.

Measuring 50%

The requirements for modern languages 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 Learning and Teaching Scotland for detailed advice when reviewing the BBC's commissioning plans for resources in modern languages.

Amenability statement

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

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 age range 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. Becta strongly recommends that the BBC, as it moves forward with its planning, takes account of the advice provided in the sections of the 5–14 national guidelines on teaching and learning using IT.

1c) Thinking skills, 5–11

Thinking skills are often taught through subject content (for example, the Cognitive Acceleration in Science Education programme). There is, of course, much debate about theories and approaches, for example whether 'thinking skills' actually do exist and whether skills can be transferred from context to context.

Thinking skills programmes have been developed for use in Scotland (the ACTS programme is one example). While thinking skills are not generally seen as a 'subject', different programmes may use alternative terminology, and may describe or emphasise different thinking skills. It should be emphasised that thinking skills are generally seen as being closely inter-related.

The use of computers has long been associated with thinking skills, although there are differing views on how computers can be used most effectively in their development. However, what does seem to be clear is that ICT can have a role in thinking skills, whether as a tool, as a stimulus or a source of information.

Measuring 50%

Given that thinking skills is not a subject in its own right, it is not appropriate to measure coverage against a particular order, or against a particular version or set of skills (for which good pedagogy demands that the skills be seen as inter-related).

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 age range, 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.

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. Becta strongly recommends that the BBC, as it moves forward with its planning, takes account of the advice provided in the sections of the 5–14 national guidelines on teaching and learning using IT.

2a) **Citizenship, 11–14**

Local and global citizenship is one of the five national priorities for education in Scotland. Education for Citizenship in Scotland sets out areas of knowledge and understanding relevant to citizenship along with 'core' and 'generic' skills of importance to being an effective citizen. These apply to pupils throughout the school years. Delivery is cross-curricular.

Measuring 50%

The core and generic skills are intended to be repeatedly visited at an appropriate level at each stage of school. For this reason, the BBC may choose up to half the outcomes in these sections. The BBC may also choose up to half the areas of knowledge and understanding of those relevant to this age group.

Amenability statement

Based on both the inspection of the outcomes and an assessment of the role of ICT in the development of skills, knowledge and understanding in citizenship, 11–14, Becta judges that there are no outcomes that are not amenable.

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 which 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 age range 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. Becta strongly recommends that the BBC, as it moves forward with its planning, take account of the advice provided in the sections of the 5–14 national guidelines on teaching and learning using IT.

2b) English Language 5–14, age range 11–14, levels E–F

The attainment targets (outcomes) for the English Language 5–14 guidelines are divided into four sections: listening, talking, reading and writing. The attainment targets have been examined for amenability.

In the listening and talking sections, the majority of these targets might be considered non-amenable if taken in isolation and out of context. While it would be difficult to argue that all the requirements under these headings could be taught via ICT, it is clear that ICT might be used to support and extend learning. Furthermore, these requirements address key aspects of the subject, and describe 'holistic' or 'integrated' skills that are part of effective learning in the subject. Given these considerations, it is appropriate to judge these learning outcomes as amenable to ICT.

Measuring 50%

The set of attainment targets (outcomes) is large enough to provide a reasonable basis for measuring the 50 per cent in terms of amenable outcomes.

Amenability statement

There are no outcomes judged to be not amenable by Becta in the 5–14 English guidelines (Levels E–F).

Note: see the annex of Becta's report to the DCMS on levels A–D.

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 age range 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. Becta strongly recommends that the BBC, as it moves forward with its planning, takes account of the advice provided in the sections of the 5–14 national guidelines on teaching and learning using IT.

2c) Environmental studies (historical studies), age range 11–14, level E–F

The guidelines for 5–14 (historical studies) are divided into four strands:

- People, events and societies of significance in the past
- Change and continuity, cause and effect
- Time and historical sequence
- The nature of historical evidence.

Together, these strands and the attainment targets they contain describe a set of holistic or integrated knowledge and skills of the type described in section 4.3.4. Since pupils develop these in the context of each other – for example, time and historical sequence in the context of change and continuity, cause and effect – 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%

The requirements for environmental studies (historical studies) 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 Learning and Teaching Scotland for detailed advice when reviewing the BBC's commissioning plans for resources in environmental studies (historical studies).

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 relation to *knowledge and understanding – people in the past*, Becta judges that there are no outcomes that are not amenable in the environmental studies guidelines (knowledge and understanding – people in the past) at levels E–F.

Note: see Becta’s previous statements for findings for levels A–D.

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 age range 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. Becta strongly recommends that the BBC, as it moves forward with its planning, takes account of the advice provided in the sections of the 5–14 national guidelines on teaching and learning using IT.

2d) Mathematics 5–14, age range 11–14, levels D–F

The guidelines for mathematics 5–14 are divided into four sections:

- Problem-solving and enquiry
- Information handling
- Number, money and measurement
- Shape, position and movement.

Of these sections, the attainment targets (outcomes) presented in *problem-solving and enquiry* are judged to be of the type described in section 4.3.4, for which good pedagogy requires that they should be taught and learnt in an integrated way. These then are considered to be amenable for the purposes of this exercise but, as detailed in section 4.5, will not be included when determining the question of 50 per cent coverage.

At early primary in particular, appropriate learning and teaching requires first-hand physical exploration and experience of the real world as described in section 4.3.3, particularly as many fundamental concepts are introduced at this stage. However, moving on from this stage, the development of concepts and, in many cases the greater level of abstraction, opens up further avenues for the use of ICT, as attested by the existence of a variety of sophisticated dynamic geometrical, graphical and symbolic algebra programs relevant to many topics in the age range, and in particular to learners in this age range.

Measuring 50%

The BBC may select up to 50 per cent of those outcomes judged to be amenable by Becta. For the purposes of determining 50 per cent, the *problem-solving and enquiry* outcomes in mathematics are not included in the equation, as this would constitute double counting.

Amenability statement

There are no outcomes judged to be not amenable by Becta at levels D–F.

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 age range 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. Becta strongly recommends that the BBC, as it moves forward with its planning, takes account of the advice provided in the sections of the 5–14 national guidelines on teaching and learning using IT.

2e) **Expressive arts 5–14: music, age range 11–14, level E–F**

The outcomes for music are divided into three broad themes:

- Using materials, techniques, skills and media
- Expressing feelings, ideas, thoughts and solutions
- Evaluating and appreciating.

Each of these broad themes contains strands which delineate elements contributory to the theme as a whole; for example, the strands within **Expressing feelings, ideas, thoughts and solutions** are *Creating and designing* and *Communicating and presenting*.

Together, the outcomes and their strands describe a set of holistic skills of the type described in section 4.3.4. Since pupils develop these skills in the context of each other, for example, *using instruments* in the context of *communicating and presenting*, 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.

One strand in particular, taken in isolation, would appear not to be amenable. This is *Using the voice* at level E:

Sing in unison and in harmony with an appropriate vocal technique and a sense of interpretation

However, ICT-based resources might reasonably be developed that will support the teaching and learning of singing, for example by stimulating interest, modelling possibilities and offering opportunities for reflection and analysis. We understand that the BBC is currently planning resources of this kind.

Measuring 50%

The requirements for music 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 Learning and Teaching Scotland for detailed advice when reviewing the BBC's commissioning plans for resources in music.

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 music, Becta judges that there are no outcomes in the programme of study for music in Scotland (levels E–F) that are not amenable to ICT.

Note: Becta’s verdicts on levels A–D can be found in its previous amenability statement on music.

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 age range 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. Becta strongly recommends that the BBC, as it moves forward with its planning, takes account of the advice provided in the sections of the 5–14 national guidelines on teaching and learning using IT.

2f) Religious and moral education 5–14, age range 11–14, levels E–F

The guidelines present sections on *Christianity*, *Other world religions* and *Personal search* as broad attainment outcomes. Within each of these are a number of strands that contain attainment targets (outcomes). These targets within the strands have been assessed for amenability. The strands are deeply inter-related, for example, in *Personal search*, an attainment target such as:

Understand that for many people religious beliefs provide a sense of meaning and purpose in life
Personal Search, Ultimate Questions (level E)

it is likely that knowledge from the common strands of *Christianity* and *Other world religions* will contribute to a pupil's attainment of this target.

Together the attainment targets in the strands of the guidelines describe holistic set of skills and knowledge 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 service to deal with some of them but not others would be to require it to produce pedagogically unsound resources.

Measuring 50%

The requirements for religious and moral education 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 Learning and Teaching Scotland for detailed advice when reviewing the BBC's commissioning plans for resources in religious and moral education.

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 religious and moral education, Becta judges that there are no attainment targets within the guidelines (levels E–F) that are not amenable to ICT.

Note: see Becta's previous statement for amenability findings at levels A–D.

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 age range 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. Becta strongly recommends that the BBC, as it moves forward with its planning, takes account of the advice provided in the sections of the 5–14 national guidelines on teaching and learning using IT.

2g) Environmental studies: science (5–14), age range 11–14, level E–F

Skills in science – investigating lists a group of related holistic or integrated skills of scientific investigation. These skills are judged to be of the type described in section 4.3.4, for which good pedagogy requires that they should be taught and learnt in an integrated way. These then are considered to be amenable for the purposes of this exercise but, as detailed in section 4.5, will not be included when determining the question of 50 per cent coverage.

The remaining requirements have been examined for amenability. For many of these, appropriate learning and teaching requires practical experimental work; however, ICT can also support and extend practical work, for example through the use of simulations, as well as for use in consolidating, developing and applying understanding of scientific concepts.

The BBC has made it clear to Becta that in developing resources for science in the 11–14 age range, it intends to focus on developing skills of problem solving, using and applying knowledge and understanding, and investigation rather than the teaching of concepts. It is in this sense, then, that the learning outcomes are considered amenable, and only to the extent that resources develop and apply experience that has come from the real world.

Measuring 50%

The BBC may select up to 50 per cent of those outcomes deemed to be amenable by Becta. For the purposes of determining 50 per cent, only the outcomes in *Knowledge and understanding* in science need be counted; the *Skills in science – investigating* outcomes are regarded as holistic (see section 4.3.4) and are not to be counted as part of the 50 per cent.

Amenability statement

There are no outcomes judged to be not amenable at levels E–F in the environmental studies 5–14 guidelines for science.

Note: see Becta’s previous amenability statement for findings on level A–D.

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 age range 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. Becta strongly recommends that the BBC, as it moves forward with its planning, takes account of the advice provided in the sections of the 5–14 national guidelines on teaching and learning using IT.

2h) Work-related education, 11–14

Learning and Teaching Scotland published, in 2001, *Career Education in Scotland: a National Framework*. The framework provides a series of outcomes progressing from 5–18. The areas under which the outcomes are set out are: *awareness of self; awareness of opportunity; understanding career decision making; understanding transitions*. The outcomes expected to be achieved ‘by about 13 years’ are the most relevant to the age range here, although the clear progression across the age range highlights that these are approximate in terms of expected age.

There are clearly a variety of ways in which ICT can support the achievement of outcomes in 11–14 work-related careers education, whether as a source of information, a tool for investigation and evaluation, or for recording and presentation.

Measuring 50%

Becta will look to Learning and Teaching Scotland for detailed advice when reviewing the BBC’s coverage plans for this area with regard to the 50 per cent measure.

Amenability statement

Based on both the inspection of the learning outcomes set out in the national framework and an assessment of the role of ICT in the holistic development of knowledge, skills and understanding, Becta finds that there are no outcomes judged to be not amenable in the framework.

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 age range 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) Child development, 14–16

There is no subject of Child Development as such in Scotland; however, relevant elements and requirements are found in the SQA syllabuses for *Early education and childcare* and *Care*. SQA has also developed a pilot course entitled *Skills for work: Early Education and Childcare* (Intermediate 1 and Intermediate 2) which the BBC intends, with the agreement of Becta, to utilise as the basis for its offering in child development 14–16 in Scotland. This course began running in August 2005.

For the pilot course (Intermediate 1 and 2) learners study four units, three of which are prescribed:

- Child development
- Working in early education and childcare
- Play in early education.

There is a choice of one unit from:

- Parenting
- Maintaining a safe environment for children / First aid (Intermediate 2)
- Care of children / Care and feeding of children (Intermediate 2)

There are many ways in which ICT can support the development of the knowledge and skills requirements of the units, for example by providing stimulus, information and modelling of scenarios.

Measuring 50%

Becta will seek the advice of Learning and Teaching Scotland in reviewing the BBC's commissioning plans and the assessment of the 50 per cent coverage

Amenability statement

Based on an assessment of the skills and knowledge of the requirements of the syllabus, Becta finds that there are no outcomes judged to be not amenable.

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 age range 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.

3b) Craft and Design, 14–16

The Craft and Design Standard Grade syllabus is set out in three sections:

- Designing
- Practical activities
- Knowledge and understanding.

Clearly, the role of ICT in any course which has a significant practical element is conditioned by the requirements of such developments; however, ICT can also play a valuable role in support of the development of practical skills, for example by demonstrating techniques.

The requirements have been examined for amenability. Together, the requirements for designing set out under the second aspect 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, identifying a problem may be part of the *Preparing for tasks* strand or of the *Reviewing and reporting on tasks* strand – 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%

The BBC may select up to 50 per cent of the outcomes set out under the two remaining aspects – knowledge and understanding and practical skills.

Amenability statement

Based on both the inspection of individual outcomes and an assessment of the role of ICT in learning in Craft and Design 11–14, Becta judges that there are no outcomes that are not amenable to ICT in the requirements for technology.

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 age range 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. Becta strongly recommends that the BBC, as it moves forward with its planning, takes account of the advice provided in the sections of the 5–14 national guidelines on teaching and learning using IT.

3c) Drama, 14–16

The requirements for Drama are set out in the Standard Grade specifications developed by SQA. These requirements have been examined for amenability. While a great deal of the course concerns practical work, there are a variety of ways in which ICT can support learning, including the planning and development of performance, as a means for research and stimuli, and to support learning in technical areas such as sets, costume, lighting and so on.

Some of the requirements describe a holistic or integrated group of skills. Good pedagogy demands that these should be taught and learned in an integrated fashion, and for the reasons already given (see section 4.3.4), these skills are not included in the list of learning outcomes against which the 50 per cent would be measured.

The remaining requirements could, in principle, be taught via ICT (but see the note on context below).

Measuring 50%

In this subject, the requirements of the Standard Grade must be used as the basis for the determination of the 50 per cent.

Amenability statement

There are no outcomes judged by Becta to be not amenable.

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 age range 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.

3d) Geography, 14–16

The learning requirements for geography at 14–16 are set out in the Standard Grade subject criteria developed by SQA. The requirements have been examined for amenability.

Some of the requirements describe a holistic or integrated group of skills. Good pedagogy demands that these should be taught and learned in an integrated fashion and, for the reasons already given (see section 4.3.4), these skills are not included in the list of learning outcomes against which the 50 per cent would be measured.

The remaining requirements could, in principle, be taught via ICT (but see the section on context below).

Measuring 50%

Becta will look to Learning and Teaching Scotland for detailed advice when reviewing the BBC's proposals for coverage of geography 14–16 and the 50 per cent measures.

Amenability statement

Based on both the inspection of the learning requirements set out in the specifications and an assessment of the role of ICT in the holistic development of skills in geography 14–16, Becta find that there are no outcomes judged to be not amenable in the specifications.

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 age range 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. Becta strongly recommends that the BBC, as it moves forward with its planning, takes account of the advice provided in the sections of the 5–14 national guidelines on teaching and learning using IT.

3e) Mathematics, 14–16

The Standard Grade course in mathematics leads on from the 5–14 guidelines in mathematics, ensuring continuity in mathematics learning from S1 to S4.

The learning requirements for Standard Grade mathematics are given in the specifications set out by SQA. The course content requirements are set out under the headings of number, money, measure, shape, angle, relationships (algebra) and so on – highlighting the continuities between the 5–14 guidelines. The requirements have been examined for amenability.

Measuring 50%

In this subject, the course content requirements must be used as the basis for the determination of the 50 per cent.

Amenability statement

Becta finds that there are no requirements judged to be not amenable in the Standard Grade requirements.

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.

3f) Media Studies, 14–16

Media Studies (Intermediate 2) is a course 'designed to develop critical understanding and appreciation of the media and their products and to develop practical skills in media technology' (course outline, SQA 2004). The course is in three main sections:

- Media analysis (fiction)
- Media analysis (non-fiction)
- Media production.

The fiction and non-fiction units focus on a range of media: television, radio, print, online and so on. The analysis of 'texts' produced in both *media analysis* units offers many opportunities for (and sometimes necessitates) the use of ICT in support of analysis, for example of generic, linguistic or narrative aspects of 'texts' to be analysed, researched or presented.

Media production also offers a wide range of opportunities for ICT, given the focus on technology. It should also be noted that despite the formal division of the course units, production and analysis are not seen as separate elements from the viewpoint of the course as a whole, given that analysis and production influence each other at every point. However, the individual units reflect the considerable level of specific detail in the content of each unit of the course (in terms of textual content in the two *media analysis* units, and media technology in *media production*).

It should also be noted that it is very much expected that ICT be integrated into media studies, whether for use in investigating, presenting, recording or creating. Therefore, it is sensible to judge the specifications as amenable to ICT.

Measuring 50%

In this subject, the Media Studies Intermediate 2 syllabus must be used as the basis for the determination of 50 per cent.

Amenability statement

Based on both inspection of the learning requirements set out in the specifications and an assessment of the role of ICT in the holistic development of skills and knowledge in Media Studies, Intermediate 2, Becta finds that there are no outcomes judged to be not amenable in the specifications.

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.

3g) Modern languages, 14–16

The learning requirements for the Standard Grade syllabus in Modern Languages are given in the arrangements set out by SQA. The requirements have been examined for amenability.

Some of the requirements describe a holistic or integrated group of skills. Good pedagogy demands that these should be taught and learned in an integrated fashion, and for the reasons already given (see section 4.3.4), these skills are not included in the list of learning outcomes against which the 50 per cent would be measured.

The remaining requirements could, in principle, be taught via ICT (but see the note on context below).

Measuring 50%

In this subject, the specifications of the Standard Grade syllabus 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 being taught via 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 age range 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.

3h) Physical Education, 14–16

The learning requirements for physical education at Standard Grade are given in the specifications set out by SQA. The course content is set out in the following sections:

- Practical performance
- Knowledge and understanding
- Evaluating
- Effective development.

Of these, the first three are assessed areas, and these requirements have been assessed for amenability.

While in the area of *practical performance* ICT cannot substitute for actual performance, there are a variety of ways in which it can support the development of performance, for example through demonstration material. In the area of *knowledge and understanding*, there are similarly a variety of uses for ICT in terms of information gathering and evaluation, presentation and so on. Similarly there are also possibilities in *evaluation* for the use of ICT in the analysis of movement, performance and so on.

Measuring 50%

In this subject, the Standard Grade specifications produced by SQA must be used as the basis for the determination of 50 per cent.

Amenability statement

Based on both the inspection of the learning requirements and an assessment of the role of ICT in the holistic development of skills, Becta judges that there are no outcomes judged to be not amenable in the specifications for physical education at Standard Grade.

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 age range 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.

3i) **Religious studies, 14–16**

The learning requirements for religious studies at Standard Grade are given in the specifications set out by SQA. The standard grade course covers four units:

- A study of Christianity
- A study of a second religion
- Issues of belief
- Issues of morality.

Alongside the requirements of knowledge and understanding for the four units, students are also required to develop their ability to evaluate what they learn, and to express and justify opinions; the other main requirement is to carry out an investigation into a religious issue. These requirements have been examined for amenability.

There are clearly a variety of ways in which ICT could support learning and development of the requirements, both of knowledge and understanding and to support evaluative and investigative processes. These latter requirements are judged to be of the type described in section 4.3.4 and these skills are not included in the list of learning requirements against which the 50 per cent would be measured.

The remaining requirements could, in principle, be taught via ICT (but see the note on context below).

Measuring 50%

The knowledge and understanding requirements of the Standard Grade syllabus 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 in the Standard Grade syllabus.

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 age range 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.

3j) Science, 14–16

Science at post 14 is seen in Scotland as being composed of three discrete subjects: Biology, Chemistry and Physics, and that is the way it is taught for the vast majority of pupils in Scottish schools.

These factors mean that it is far more appropriate to consider ICT amenability and to measure the DCMS 50 per cent condition against the sum of the three science curricula.

For the sake of simplicity, the curricula of the three sciences at National Qualifications Intermediate 1 level has been chosen to form the basis of the comparator.

The sub-units contain detailed course content. The course content has been examined for amenability. It should be noted that while much of the courses concerns the development of knowledge and understanding and practical skills, problem solving is central to the purpose of the courses.

There are many ways in which ICT can support the development of knowledge and understanding of the topic content, as well as supporting problem-solving approaches, whether through simulations, research or other kinds of online ICT-based activities and resources. ICT can also support practical work, although clearly it cannot substitute for hands-on experience, although modelling of practical techniques relevant to the specifications may also be a valuable use of ICT in this context. In addition, the practical investigations are linked to the topics and their content, and therefore are not isolated from contexts in which ICT might be used in the development of knowledge and skills.

Measuring 50%

With the agreement of Learning and Teaching Scotland, the BBC's coverage plans for science 14–16 will be assessed against the sum of the three specifications for biology, physics and chemistry at Intermediate 1 which comprise the core learning in science for learners in Scotland.

Amenability statement

There are no outcomes judged to be not amenable in the course content specifications for Intermediate 1 biology, physics and chemistry.

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 age range 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.

3k) Travel and tourism, 14–16

The learning requirements for travel and tourism at Intermediate 2 are set out in the subject criteria developed by SQA. The requirements have been examined for amenability.

The requirements for travel and tourism include the development of knowledge, understanding and skills relating to a considerable number of contexts and themes including, leisure, transport, tourist destinations and marketing. ICT would clearly be a very valuable support to developing knowledge and understanding in all these areas of learning. The importance of the online medium to the travel and related industries further underlines the amenability to ICT of the learning requirements.

Measuring 50%

In this subject, the requirements of the Intermediate 2 specification 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.

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.

advice

evidence

standard



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