

Functional Skills Support Programme

Developing functional skills in music



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Please check all website references carefully to see if they have changed and substitute other references where appropriate.

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Key to references

This booklet contains three contexts that highlight opportunities for pupils to develop and apply functional skills (FS), and personal, learning and thinking skills (PLTS). Coloured boxes indicate which specific skills are being developed. Within the boxes the following references have been used:

Reference	Explanation
FS.Eng.L1/SLC	Functional English level 1 – Speaking, listening and communication
FS.Eng.L1/R	Functional English level 1 – Reading
FS.Eng.L1/W	Functional English level 1 – Writing
FS.Ma. L1/	Functional mathematics level 1 followed by reference to one of the three interrelated process skills: representing, analysing and interpreting
FS.ICT.L1/UsingICT	Functional ICT level 1 – Using ICT
FS.ICT.L1/F&S	Functional ICT level 1 – Finding and selecting information
FS.ICT.L1/DP&CI	Functional ICT level 1 – Developing, presenting and communicating information
PLTS	Personal learning and thinking skills followed by reference to one of the six groups of skills

Developing functional skills in music

What are functional skills?

'Music is a unique form of communication that can change the way pupils feel, think and act. Music forms part of an individual's identity and positive interaction with music can develop pupils' competence as learners and increase their self-esteem. Music brings together intellect and feeling and enables personal expression, reflection and emotional development.'

The importance of music, National Curriculum 2007¹

Functional skills underpin and complement many of the key processes in music. They are the core elements of English, mathematics and ICT that enable pupils independently to:

- apply and adapt their knowledge and understanding to a range of contexts
- solve problems in familiar and unfamiliar situations
- gather, interpret and communicate information effectively and confidently.

Each of the three skills has a set of performance statements based on three key areas:

Functional English	Functional mathematics	Functional ICT
<ul style="list-style-type: none"> • Speaking, listening and communication • Reading • Writing 	<ul style="list-style-type: none"> • Representing – selecting the mathematics and information required to model a situation • Analysing – processing and using mathematics • Interpreting and communicating the results of the analysis 	<ul style="list-style-type: none"> • Using ICT • Finding and selecting information • Developing, presenting and communicating information

The skills are embedded through the programmes of study in the new secondary curriculum at both Key Stage 3 and Key Stage 4 and form an essential part of GCSE and new Diploma courses. Alongside the new Framework for personal, learning and thinking skills, functional skills are fundamental to learning across the curriculum and are key to success for pupils, both now and in their future.

For further information about the functional skills visit: www.ofqual.gov.uk/2578.aspx and www.qcda.gov.uk/6062.aspx

'Functional skills provide a great opportunity for linking music to other areas of the curriculum. Our pupils are happier knowing that the skills they are learning in music link to their learning in other subjects. It helps them become successful musicians!'

Subject leader

¹ The Importance of music, National Curriculum 2007. © Qualifications and Curriculum Authority. Used with kind permission.

The curriculum opportunities in the programmes of study for all subjects, combined with many of the key processes, have been designed to ensure that pupils have **planned** opportunities to transfer the functional skills they are developing to as many varied and relevant situations as possible.

For more information relating to the role of functional skills in Foundation Learning, GCSEs, Diplomas and apprenticeships visit: www.dcsf.gov.uk/14-19/

What does this mean for learners?

Pupils who are able to apply functional skills effectively will make better progress in music and in the rest of their studies. They will not only engage in the content of what is being taught but will become more actively involved in the learning process. They will understand the purpose of the English, mathematics and ICT skills they are transferring and securing and will take greater responsibility for furthering their own progress.

What does this mean for me as a music teacher?

The diagram on page 8 captures the learning process that you will need to support in order to ensure that pupils secure their functional skills. This process is not linear but cyclical and should respond to the needs of the learners and inform their future learning.

Effective teaching will enhance the development of skills. Pupils need planned opportunities to 'have a go' – to select from and experiment with the skills they have learnt elsewhere in the curriculum, applying them with an increasing degree of independence to new and varied contexts. These should have both relevance to the learner and a real purpose in relation to the subject.

Through peer- and self-assessment and teacher feedback, pupils then need to reflect on the progress they are making and to identify particular aspects of their skills development that need further reinforcement.

What functional skills can be developed and applied to music?

Musical processes such as performing, composing, listening, reviewing and evaluating provide rich opportunities for pupils to draw from and apply a range of functional skills, although some skills will be more appropriate than others. The increased emphasis on integrating these processes in meaningful musical contexts means that music teachers will naturally be providing more open-ended, problem-solving tasks that require pupils to take greater ownership of their learning to:

- initiate, develop and refine their own musical ideas
- discuss, justify and evaluate their musical interpretation
- create links between their music learning inside and beyond the classroom.

Pupils develop competence and confidence in using functional skills in an interrelated way. Their functionality develops over time as they learn to select and apply the skills needed to tackle particular tasks. Subject teachers can support this process by ensuring that pupils have access to the full range of skills. The following tables contain a few examples of ways in which functional skills can be deployed in music.

Functional English

Learning through talk, from text, through music and through writing about music will be integral to this process, but in particular pupils will need to deploy specific functional English skills. For example:

Functional English	Example of how applied in music
Make relevant and extended contributions to discussions (<i>Speaking listening and communication</i>)	When responding appropriately to others' musical viewpoints or interpretations
Utilise information contained in texts (<i>Reading</i>)	To obtain and utilise relevant information related to musical content
Use language, format and structure suitable for purpose and audience (<i>Writing</i>)	When discussing the outcomes of their musical work

Functional mathematics

Mathematical skills of **representing**, **analysing** and **interpreting** can be used and developed in a wide range of ways through musical activities. For example:

Functional mathematics	Example of how applied in music
Extract and interpret information from tables, diagrams and charts (<i>Interpreting and communicating</i>)	To develop a wider musical understanding of music's influence on national and global culture
Obtain answers to practical problems (<i>Analysing</i>)	When investigating about rhythm, time signatures, beat matching or sampling
Use mathematical patterns (<i>Representing</i>)	As a stimulus to composition

Functional ICT

Music provides a rich vein of opportunity for pupils to use, apply and secure ICT skills in new contexts. For example:

Functional ICT	Example of how applied in music
Select and use interface features effectively (<i>Using ICT</i>)	When exploring and combining musical ideas in new ways
Select information from a variety of ICT sources (<i>Finding and selecting information</i>)	When finding specific pieces of music to compare and contrast musical styles and interpretations
Use field names and data types to organise information (<i>Developing, presenting and communicating information</i>)	When managing multiple sound files contributing to a soundtrack

How can I secure the development of functional skills within my lessons?

As a music teacher you can support a cohesive and planned approach to the skills development of your pupils by:

- familiarising yourself with the functional skills criteria (see reference on page 3)
- talking to your colleagues, for example those in the English, mathematics and ICT departments, about how and when certain functional skills are being taught
- making clear from the beginning of a teaching sequence both the subject learning objectives that will need to be achieved and the functional skills that will be developed and applied
- referring at regular intervals in lessons to the objectives and to the functional skills that are being used, in order to encourage pupils to assess their progress and to inform where they need to focus next
- designing problem-based activities, both within music and where possible in conjunction with other subject areas, that provide pupils with the opportunity to make choices about which functional skills they will use, individually and in combination, to seek solutions to challenges that are real, relevant and purposeful
- encouraging pupils to reflect on their learning, using probing questions that ask them to identify how they have used their functional skills and how they can transfer and apply these skills to other contexts within and beyond music and the school.

What's in this booklet?

Three teaching sequences

The booklet contains three worked examples of teaching sequences that support how an organisation might embed and support the development of functional skills within music as follows:

1. **Key Stage 3 teaching sequence:** Creating an internet radio programme
2. **Key Stage 3 teaching sequence:** Film music
3. **Key Stage 4 teaching sequence:** Live multi-track recording

Each teaching sequence exemplifies three key principles:

- Problem-solving needs to be at the core of planning for functional skills.
- Real, purposeful and relevant contexts are essential for engagement and applied learning.
- Supporting pupils to progress and use functional skills independently is the ultimate goal.

Functional skills focus

The teaching sequences support the development of a range of functional skills, for example speaking and listening as well as reading and writing. In mathematics pupils will usually deploy the skills of representing, analysing and interpreting in an integrated way to solve problems. Similarly, the functional skills of using ICT systems, finding and selecting information, developing, presenting and communicating information will also be used together.

However, within each sequence particular functional English, mathematics and ICT skills have been highlighted within the learning focus to show how they can be explicitly developed and applied. Music teachers would need to consider how, over a period of time, teaching sequences support the development and application of a broad skills set.

Functional skills progression

In line with the English, mathematics and ICT programmes of study, functional skills have been mapped at level 1 to the Key Stage 3 examples and at level 2 to the Key Stage 4 example. However, it is important to note that these are target levels to be achieved **at the end of** each of these key stages and that some learners will be working towards securing their functional skills at lower levels, and some at higher. The teaching sequences can be tailored to the needs of your learners as appropriate.

A learner's **level of performance** in functional skills and the **level of demand** of a task depend on the interplay of four factors which are critical to success:

- the **complexity** of tasks and problems and the contexts in which they are embedded
- the **technical demand** of the content that might be applied in these contexts
- a learner's level of **familiarity** with the type of task or problem and context
- the level of **independence** required of the learner.

The need for **problem-solving** underpins all of them. The four factors are a key to reflection on **progress** in functional skills. For more detail see the diagram on page 8 and visit the Functional skills qualifications criteria on the Ofqual website.

Personal, learning and thinking skills

Functional skills and personal, learning and thinking skills work together to build independent, confident and successful learners. Therefore, references to opportunities to develop specific personal, learning and thinking skills have also been provided.

For more information relating to personal learning and thinking skills visit:
<http://curriculum.qcda.gov.uk/key-stages-3-and-4/skills/plts/>

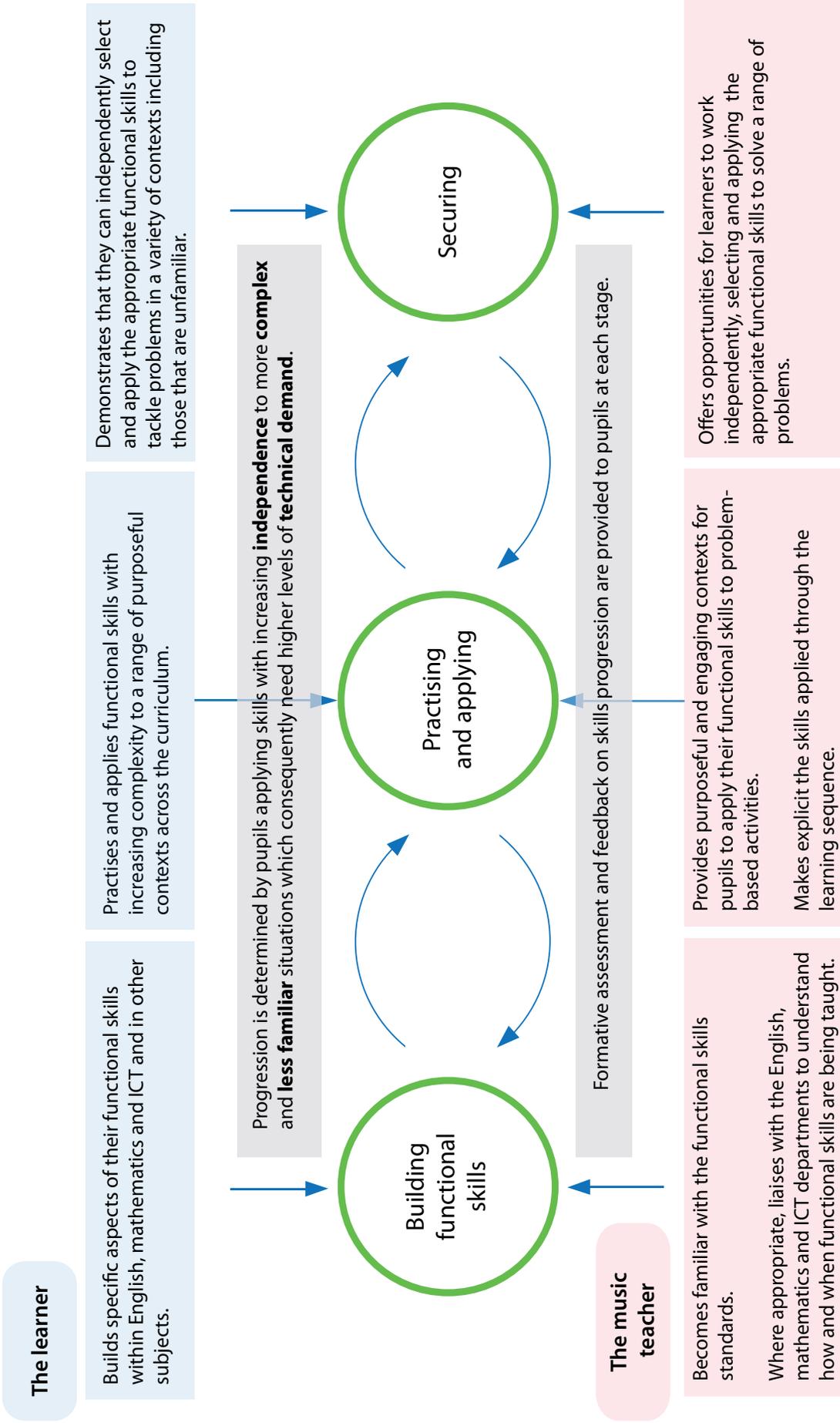
How can I use this booklet?

You can use the examples that follow, plus the additional information contained within this booklet, to:

- provide ideas that will inform your own planning (see planning tool on page 18)
- open a dialogue with teachers in your school who have the primary responsibility for delivering functional skills to find out more
- begin a discussion with other colleagues within your department about how to enhance functional skills development within music lessons
- raise challenges and opportunities concerning working within and between subjects in your organisation.

For the key to the functional skills references that have been used in each context please see the grid on page 2.

Developing and securing functional skills



For more information relating to the teaching and learning of functional skills visit: www.standards.dcsf.gov.uk/nationalstrategies/ and choose Secondary and then select functional skills.

Context 1: Key Stage 3 – Creating an internet radio programme

Aims and overview

This module will enable pupils to develop selected functional skills in an appropriate manner as part of a series of musical activities focused around the construction of a short internet radio programme. This module is often taught as part of music in Year 9 and will build on basic musical skills that the learners have developed earlier in the key stage.

The big question

How has the internet transformed radio broadcasting?

Learning focus – music

Pupils should be able to:

- create, record, download and manipulate sounds (samples) using audio recording and editing techniques to produce new sounds designed for radio
- develop an awareness of audio imaging and designing, creating and mixing sounds to achieve an audio identity
- gain familiarity and confidence using new vocabulary for the context of an internet radio broadcast
- learn about copyright laws, royalty-free music and how to access musical materials legally using the internet.

Learning focus – functional skills target: level 1

This teaching sequence supports the development of a range of functional skills. However, particular functional English, mathematics and ICT skills have been highlighted and annotated below to model for illustrative purposes how they can be explicitly developed and applied.

English

Speaking, listening and communication, reading and writing

Writing: Write documents to communicate information, ideas and opinions, using formats and styles suitable for their purpose and audience.

Mathematics

Representing, analysing and interpreting

Analysing: Apply mathematics in an organised way to find solutions to practical problems for different purposes.

ICT

Using ICT, finding and selecting information, developing, presenting and communicating information

Finding and selecting: Use search techniques to locate and select relevant information; select information from a variety of sources for a straightforward task.

Stage and focus	Learning outcomes
<p>Stage 1 – The context</p> <p>In this module, pupils will create a short internet radio programme. They will compare internet broadcasting with traditional, mass-media broadcasting outlets.</p> <p>Ask pupils to search for and listen to various web-based radio stations, identifying their target audiences and the use of sound to create an audio identity. Identify which are easiest to access and look at the role commercials, competitions and simultaneous chat-room openings play in providing either an income for the radio station or real-time opportunities for listener interaction with the radio station. Consider with the pupils how the internet can be used to bypass mass-media broadcasts and tell a personal story or a positive news story. Pupils should collect examples of their findings in the above tasks and compare and contrast these with traditional mass-media approaches through a short writing task, perhaps using connectives (e.g. 'on the other hand', 'moreover', 'in contrast') to clarify ideas.</p>	<p>Pupils use search techniques to locate and select relevant information.</p> <p>Pupils demonstrate that they have taken account of currency, relevance, bias and copyright when using selected information in their writing activity.</p>
<p>Stage 2 – Research and exploration</p> <p>Demonstrate several short pieces of music that combine music with a voice-over and/or sound effects (sound FX) that are used to identify products. Emphasise that the listener/audience will automatically identify this short sound clip with the show/film genre. These idents/audio identifiers often contain a montage of short sound clips/effects, a reoccurring melody and a prominent voice. Pupils could carry out a search for American radio station idents or can be directed to a specific site from the resource list.</p> <p>Pupils should decide on a name for their radio station and plan roles within their group. Using appropriate sequencing software or recording equipment, they should create and record a sonic identifier for their station that is less than 10 seconds long, using sound effects, a simple melodic theme and a voice-over announcing the station's name. Each group should share their audio identities with the class and relate the compositional processes they have used.</p>	<p>Pupils demonstrate an effective plan showing how they will organise their work.</p> <p>Pupils evaluate the sources and what they reveal through clear presentation of points of view and information.</p>

FS.ICT.L1/F&S
 Search engines, queries

PLTS
 Independent enquirers

FS.ICT.L1/F&S
 Recognise currency, relevance, bias and copyright when selecting and using information.

FS.Eng.L1/W
 Write clearly and coherently, including an appropriate level of detail.

FS.ICT.L1/F&S
 Search engines, queries

PLTS
 Team workers

Stage and focus	Learning outcomes
<p>Stage 3 – Deploying ideas and information</p> <p>Pupils should write a short script for the news content of their radio programme, using standard radio script layout, if accessible.</p> <p>Using a range of ICT and music technology, pupils design the following musical elements:</p> <ul style="list-style-type: none"> • a jingle lasting less than 15 seconds that introduces a ‘Positive News’ show on their station • stingers to punctuate the various elements within their radio programme and also to close the show • sound beds to underscore vocal content or news scripts for their show. (Sound beds should allow room for voice-overs and the narrative that the media producer may wish to add to the production.) <p>Pupils should mix their script and the above music elements effectively, ensuring that the total mix is no longer than two minutes. Through listening to a range of sample internet broadcasts, they analyse the lengths of the individual musical elements (e.g. by choosing to use average lengths and the proportions of time spent on these elements in a typical two-minute segment) to plan the shape of their own compositions. They will need to ensure that the timings of the discrete musical and spoken elements fit together within the overall time-frame for the programme. The final mix should be saved in an appropriate file format for sharing with the class and for distribution online.</p>	<p>Pupils write clearly and coherently, using an appropriate level of detail.</p> <p>Pupils demonstrate that they can apply appropriate editing techniques to digital audio content.</p> <p>Pupils use the timing data to shape their own compositions appropriately.</p>
<p>Stage 4 – Consolidating and reflecting (moving towards functional skills level 2)</p> <p>Each radio programme is played to the group. Pupils evaluate their own and others’ work against agreed criteria. They consider the effectiveness of their work in terms of both the sonic/musical outcomes and how the target audience might perceive the content. They reflect on successes and areas for improvement, detailing why certain aspects work and what processes/actions could be put in place to create a better show.</p>	<p>Pupils write concisely and persuasively, drawing on key evaluative data.</p>
<p>Extending</p> <ul style="list-style-type: none"> • Pupils could design a podcast using the techniques focused on during this module, with content which reflects their own hobbies or interests. • The module process could be adapted to include visual content, thereby becoming a short internet-based film to be uploaded to a video-hosting site. 	

FS.Eng.L1/W
 Use language, format and structure suitable for purpose and audience.

FS.Ma.L1/Analysing
 Measure and record time data and analyse them using simple totals, averages and proportions.

PLTS
 Reflective learners

<p>Useful resources</p> <ul style="list-style-type: none"> • http://voiceovers.edenproductions.co.uk Click on ‘Samples’ to find a selection of mp3 files. • www.bbc.co.uk/newtalent Go to the ‘Drama’ and click on ‘Essential tips’ for advice on sound production and other techniques. • www.tophour.com Visit this site to find a large collection of American radio station idents. • www.name.org.uk This is the website of the National Association of Music Educators. Go to ‘Projects’ and click on ‘KS3’ to find support materials for the National Curriculum for Music (Key Stage 3). • www.ucan.me.uk This site provides free online courses for music education. • www.teachingmusic.org.uk This is a networking site for music educators, and includes discussion forums and resources.

Context 2: Key Stage 3 – Film music

Aims and overview

In this module pupils will work in groups to produce a soundtrack for a piece of film. The module has obvious links with the art and ICT curriculums, but other cross-curricular links can be developed through the selection of different pieces of film and exploring their contexts through the concept of an 'environmental perspective'. The module of work is designed for Year 7 pupils.

The big question

What are the musical elements of a film's soundtrack? How do they combine to enhance the overall expressive effect of a short film sequence?

Learning focus – music

Pupils should be able to:

- develop an awareness and understanding of how sound and image can work together for expressive effect
- identify, construct and combine different types of musical materials (including sound FX and sound beds) within a film soundtrack
- use classroom instruments with appropriate technique and control to perform their musical ideas in a live performance.

Learning focus – functional skills target: level 1

This teaching sequence supports the development of a range of functional skills. However, particular functional English, mathematics and ICT skills have been highlighted and annotated below to model for illustrative purposes how they can be explicitly developed and applied.

English

Speaking, listening and communication, reading and writing

Speaking and listening: Take full part in formal and informal discussions and exchanges.

Mathematics

Representing, analysing and interpreting

Representing: Select information in an organised way to find solutions.

ICT

Using ICT, finding and selecting information, developing, presenting and communicating information

Developing, presenting and communicating information: Enter, develop and refine information using appropriate software.

Stage and focus

Learning outcomes

Stage 1 – The context

Choose several short pieces of film, each between 30 and 45 seconds long. Play each of the films to the pupils without any musical accompaniment. Introduce the term 'environmental perspective' in relation to the films. (This term relates to the background context within which the action of the footage takes place. It encompasses the scenery, viewpoint, expressive effect and other elements that a director has sought to establish through their choice of shots.)

Ask pupils to work in groups to discuss how the director has sought to portray the environmental perspective of each film.

Select one piece of film. Ask pupils to consider how they can use mathematical skills to help them plan a soundtrack, ensuring the elements occur at the right places (e.g. through constructing a timeline showing the key 'trigger points').

Pupils interpret, through sharing ideas, how a particular perspective in film is conveyed.

Pupils decide how to use appropriate scales, degrees of accuracy and labels to represent a timeline.

FS.Eng.L1/SLC

Make relevant and extended contributions to discussions, allowing for and responding to others' input.

FS.Ma.L1/Representing

Decide how to use time measures and notation.

Stage and focus	Learning outcomes	
<p>Stage 2 – Research and exploration</p> <p>Pupils develop sounds beds and sound effects for their film sequence’s sound design.</p> <p><i>Realising the potential of sound</i></p> <p>Realising the potential of sound is a key skill drawn from the work of sound designers. There are many examples of sound designers using some of the strangest sound sources to produce particular effects. Pupils should use classroom instruments and other found objects to create a large range of sounds. Each ‘sound idea’ should be notated in a simple way. Each sound idea should be timed (to the nearest second). Encourage pupils to create short sound ideas that combine instruments or found sounds together in imaginative ways. Software can be used to support this activity.</p> <p>Pupils present a selection of their ideas to the class. They should evaluate their work in relation to the choice of instrument/found object and their subsequent use of it.</p> <p><i>Classifying sounds for future use</i></p> <p>When pupils have come up with a range of ideas, ask them to reflect on their work. Do any of their sound ideas contain common elements? Is it possible to begin to group ideas together in interesting ways (e.g. ‘short’ sounds, ‘metallic’ sounds, ‘dreamy’ sounds, etc.)?</p> <p>Encourage pupils to create an online catalogue of sounds. Pupils should choose an appropriate system that would allow sounds to be grouped, searched, sorted and amended. In future years other pupils can add to the list of sounds. Pupils should record each sound as a ‘sound bed’ or ‘sound FX’.</p>	<p>Pupils show their ability to link sound to particular effects through their presentation.</p> <p>Pupils access, organise, store, label and retrieve sound clips through working with files, folders and other media.</p>	<p>PLTS Creative thinkers</p> <p>FS.Eng.L1/SLC Present information/ points of view clearly and in appropriate language.</p> <p>PLTS Reflective learners</p> <p>FS.ICT.L1/DP&CI Use given field names and data types to organise information. Enter, search, sort and edit records.</p>
<p>Stage 3 – Deploying ideas and information</p> <p>Pupils plan how their sound beds and sound FX could fit within the film sequence. They will need to ensure that the lengths of the sounds they have chosen fit within the action as depicted within the timeline. Their sound beds will need to portray the particular environmental perspective that they have considered. The sound FX will need to relate closely to the pupils’ chosen trigger points within the timeline.</p> <p>Allow pupils time to rehearse their ideas. Through discussion, ask each group to justify the choices that they are making, prompting each other to clarify their decisions. Check that they are using appropriate instrumental techniques and that their performances are synchronised with the film sequence and match to their timeline. Pupils should consider whether or not the specific sound FX that they have chosen work well together with their overall sound bed.</p>	<p>Pupils produce sound beds which match the action of the film, using their annotated timelines and sound libraries appropriately.</p>	<p>FS.Eng.L1/SLC Make different kinds of contributions to discussions.</p>
<p>Stage 4 – Consolidating and reflecting (moving towards FS level 2)</p> <p>Pupils produce a final mix for the soundtrack. This work should be saved in an appropriate format for the following evaluation and assessment process.</p> <p>Using a series of evaluation questions, ask pupils to evaluate their own work through a short written task, relating it to their initial response to the film and their chosen environmental perspective. Peer-assessment processes can be used to help provide a greater range of feedback to each soundtrack.</p>	<p>Pupils evaluate their own and others’ work, drawing on key evaluative data and using concise and persuasive writing.</p>	<p>FS.ICT.L1/DP&CI Adding simple editing, formatting and layout techniques to meet needs.</p>

Extending

- New technologies can be used to enhance the sounds made with classroom instruments or found objects. For example, pupils could use a Boss RC-50 to help loop and layer shorter sounds to create longer compositions; or an ME-20 to add effects to sounds, varying these in real time as their composition develops.
- Electronic percussion instruments, such as the Handsonic 10, contain many useful samples and loops that could be used. This approach would be one way to extend the module in line with the new secondary curriculum's requirement to make use of ICT within musical performance contexts.

Useful resources

www.radium-audio.com Visit this site to view sample brand audio.

www.filmsound.org/starwars/ This article on the sound design of *Star Wars* includes samples of various sound FX.

Context 3: Key Stage 4 – Live multi-track recording

Aims and overview

This module will enable learners to develop selected functional skills in an appropriate manner as part of a series of musical activities focused around the production of a multi-track, live recording. This module relates to each of the main GCSE specifications for music in Year 10 and will build on basic musical skills that pupils have developed in Key Stage 3.

The big question

What are the skills and techniques needed to produce a quality, live, multi-track recording?

Learning focus – music

Pupils should be able to:

- create a multi-track live recording of an ensemble of at least four musicians
- demonstrate how to plan a recording session, taking acoustical considerations into account as well as how to use a multi-track audio recorder, stereo and close microphone (mic) techniques to record a piece of music
- act as a creative and inspiring producer, developing good mixing and mastering skills.

Learning focus – functional skills target: level 2

This teaching sequence supports the development of a range of functional skills. However, particular functional English, mathematics and ICT skills have been highlighted and annotated below to model for illustrative purposes how they can be explicitly developed and applied.

English

Speaking, listening and communication, reading and writing

Speaking and listening: Make a range of contributions to discussions and make effective presentations.

Mathematics

Representing, analysing and interpreting

Analysing: Apply a range of mathematics to find solutions.

ICT

Using ICT, finding and selecting information, developing, presenting and communicating information

Using ICT: Select, interact with and use ICT systems safely and securely for a complex task in non-routine and unfamiliar contexts.

Stage and focus

Learning outcomes

Stage 1 – The context

This module introduces the concepts of stereo and close microphone, mixing and mastering techniques to capture an accurate representation of live sound (for any musical ensembles). The first consideration in producing high-quality, live multi-track recordings is an understanding of acoustics. Ask pupils to work in pairs and research the following acoustical terms: 'reflection', 'absorption' and 'diffusion'. Each pair should create an A2 poster describing their term (including a diagram of how sound is affected in each case). They should present these to the class, clarifying key terms and answering queries as appropriate.

Pupils consider complex information and give a relevant, cogent response in appropriate language.

FS.Eng.L2/SLC
 Present information and ideas clearly to others.

Stage and focus	Learning outcomes
<p>Stage 2 – Research and exploration</p> <p>The use of acoustic treatments can help prepare a better acoustical environment for recording. Using appropriate software, pupils should consider how they can use geometrical skills to represent the recording space to help them consider the sound waves' paths and how they will be affected by acoustic treatment. Introduce the concept of 'ambient miking' by listening to various musical extracts (including a classical ensemble, a jazz group and an early pop band). Demonstrate different stereo microphone techniques, such as XY and AB pairs. Get pupils to connect these to a digital multi-track recorder, set recording levels and pan accordingly. Experiment with placement of the microphones in the room to capture a sound source. Using a scaled plan of the recording space, pupils should decide how to map the positioning of the various microphone placements and their potential operational ranges. Using the class as the musical ensemble, demonstrate how to produce a live sound recording. Consider:</p> <ul style="list-style-type: none"> ● microphone placement (close and ambient microphone techniques) ● sound spillage between instruments ● acoustic treatment (enclosures for the drums/vocalist). <p>Set up the multi-track recorder to record and demonstrate how to prepare to record multiple inputs for a range of instruments.</p>	<p>Pupils use, convert and calculate using metric and, where appropriate, imperial measures to produce a working model.</p> <p>Pupils select, interact with and use ICT systems safely and securely for a complex task in non-routine and unfamiliar contexts.</p> <p>Pupils recognise and use 2-D representations of 3-D objects.</p>
<p>Stage 3 – Deploying ideas and information</p> <p>Pupils should produce a two-minute, live sound recording of an ensemble containing at least four musicians on four tracks on the digital multi-track recorder. Overdubbing should not be used. Pupils will need to use close and ambient microphone recording techniques and consider room ambience and acoustic modification when recording. They will need to mix down their recording to produce a balanced stereo master recording. To do this, they will consider Equalisation (EQ), Effects, Level and Pan during the mix down and mastering process. Pupils should prepare a detailed plan for all recording sessions which they can talk through using appropriate terminology to an interested participant (i.e someone they are working with), or someone outside the process, including a description of the intended final outcome. This will include technical information about the recording process; a diagram of the recording environment, including any intended modifications; a list of resources, microphone choice and placement; and a schedule/timescale for the whole project work.</p> <p>Once the recording process has been completed, introduce the concept of mixing as a virtual 3-D process where:</p> <ul style="list-style-type: none"> ● Level = X (vertical) axis ● Pan = Y (horizontal) axis ● EQ = Z (applicate) axis. <p>Pupils should prepare each track for the mix by applying appropriate effects (these will mostly be reverb based). They should balance the overall mix by adjusting level, pan and EQ. The final tracks should be mixed down to produce a balanced stereo master recording.</p>	<p>Pupils select, interact with and use ICT systems safely and securely for a complex task in non-routine and unfamiliar contexts.</p> <p>Pupils demonstrate, through both written and oral presentation, understanding of the process, the technology and the effect of decisions they make.</p>

FS.Ma.L2/Analysing
 Use measurements and scale drawings to represent a 3-D space.

FS.ICT.L2/Using ICT
 Select and use interface features and system facilities effectively to meet needs. Select and adjust system settings as appropriate to individual needs.

FS.Eng.L2/SLC
 Consider complex information and give a relevant, cogent response in appropriate language.

PLTS
 Self-managers

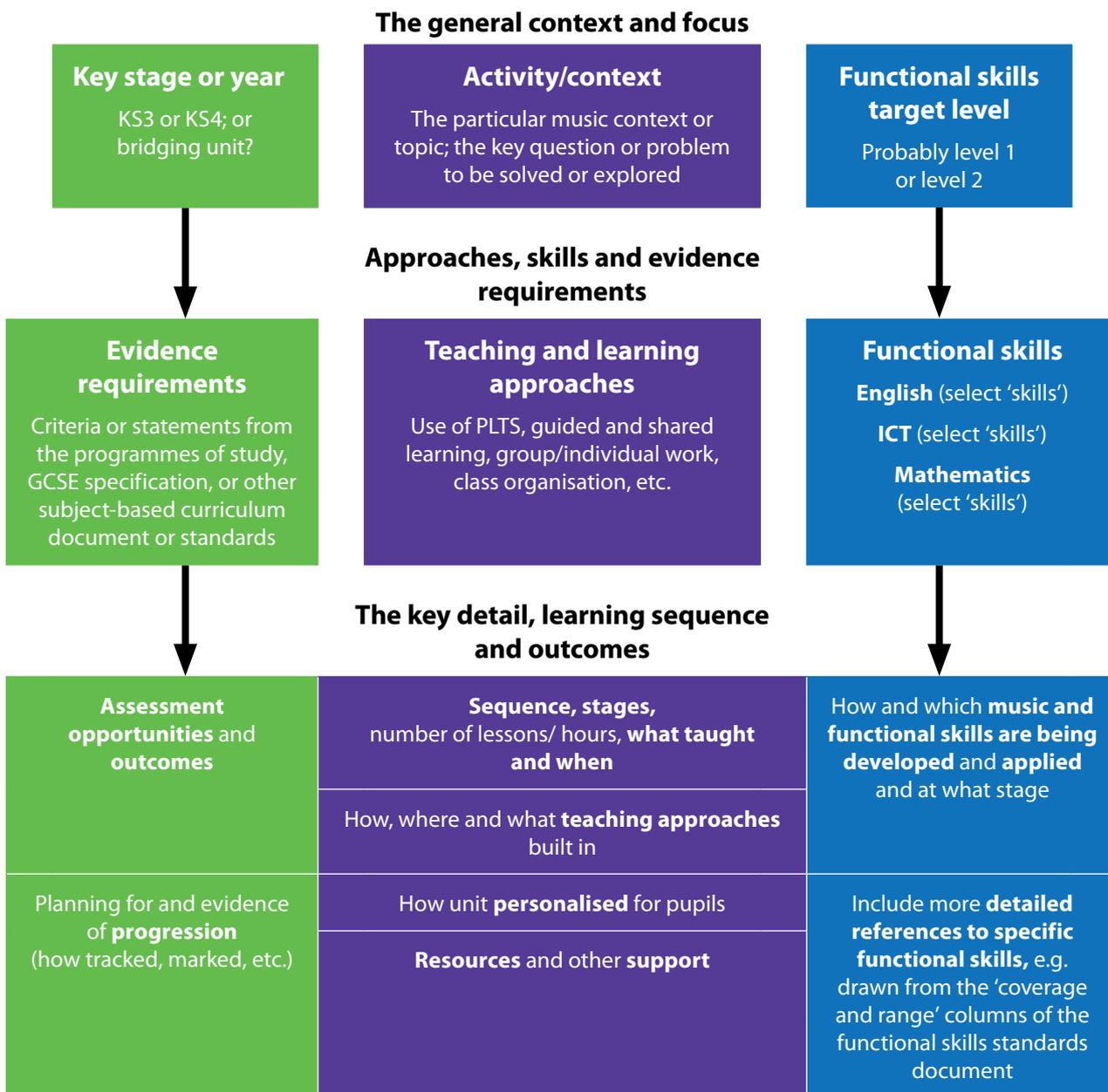
PLTS
 Creative thinkers

FS.ICT.L2/Using ICT
 Select and use interface features and system facilities effectively to meet needs. Select and adjust system settings as appropriate to individual needs.

Stage and focus	Learning outcomes
<p>Stage 4 – Consolidating and reflecting</p> <p>Pupils should write a final report outlining the recording processes completed above. They should include details of the following:</p> <ul style="list-style-type: none"> ● consideration of recording environment, acoustics and any adjustments made ● microphone choice and placement ● the recording process – how they worked with the musicians to produce the final intended outcome ● what they have learnt during this recording project and what they would do differently in future recording sessions ● what they have learnt about themselves as a producer and how their functional skills have been utilised and developed. 	<p>Pupils reflect on and evaluate their progress and ways of working through the writing of a report.</p>
<p>Extending</p> <ul style="list-style-type: none"> ● This task could provide a basis for further live sound recording inside and outside the studio. ● Pupils could extend audio recording techniques to include overdubbing and other post-production digital recording processes. 	
<p>Useful resources</p> <ul style="list-style-type: none"> ● http://homerecording.about.com Useful information can be found by following the links to 'Build a studio' and 'Microphones 101'. ● http://en.wikipedia.org/wiki/Microphone_practice This article contains information on several of the techniques used in the above task. ● www.tweakheadz.com/perfect_mix.html This site includes information on mastering and post-production. ● www.name.org.uk This is the website of the National Association of Music Educators. Go to 'Projects' and click on 'KS3' to find support materials for the National Curriculum for Music (Key Stage 3). ● www.ucan.me.uk This site provides free online courses for music education. ● www.teachingmusic.org.uk This is a networking site for music educators, and includes discussion forums and resources. 	

Functional skills in music: A planning process

The planning diagram below provides a structure for planning a music activity or topic that integrates functional skills. Note that it starts from the music activity or topic and that the functional skills are an integral part in the successful completion of the activity. It is a mistake to distort a music activity simply to ensure that it includes functional skills; however, the inclusion of functional skills may well allow for a greater degree of independent learning and skills application. A cross-curricular model would look different insofar as the focus would be on more than one subject area.



Resources

Literacy and learning in music DfES 0664-2004G

The purpose of this booklet is to help music teachers support the development of:

- learning through talk
- learning from text
- learning through writing.

Leading in learning: Exemplification in music DfES 0057-2005 G

The purpose of the booklet is to demonstrate how music teachers can contribute to the development of pupils' learning and thinking skills. It provides examples of the 10 teaching strategies contained in the Leading in learning teachers' handbooks for Key Stage 3 Ref: DfES 0035-2005G and Key Stage 4 Ref: 2111-2006DWO-EN, which are the main source of guidance for Leading in learning.

ICT across the curriculum: ICT in music DfES 0186-2004G

The **ICT across the curriculum** (ICTAC) pack is a set of materials designed to promote the use of ICT across all subjects in schools. The ICT in music guide is designed to raise awareness of how ICT can be applied and developed in music, analyse the opportunities that exist in music for developing and applying ICT and consider how ICT can enhance the teaching and learning of music.

Pedagogy and practice: Teaching and learning in secondary schools DfES 0423-2004G

The **Pedagogy and practice** materials consist of a suite of 20 study guides supported by a series of video sequences on DVD. All the guides are helpful in the development of functional skills and independence, but those with particular relevance include: Teaching models; Group work; Guided learning; Active engagement techniques; Developing reading; Developing writing; Using ICT to enhance learning; Developing effective learners.

All of the materials listed are available for download from the National Strategies web area, along with the 10 other subject booklets in this series and a suite of e-learning modules.

Visit: www.standards.dcsf.gov.uk/nationalstrategies for subject-specific National Strategies materials for music, including training modules and sample planning, select foundation subjects and then music.

A dedicated website for the Functional Skills Support Programme (FSSP) provides a first point of contact for all functional skills support. It includes the Learning and Skills Improvement Service (LSIS) training modules for functional skills for the post-16 sector and a series of booklets to support teaching functional skills in diplomas. The FSSP website can be accessed at: www.fssupport.org.

For case studies and further guidance about planning for functional skills, visit: <http://curriculum.qcda.gov.uk/key-stages-3-and-4/skills> and select functional skills.

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