Unit 37: The Functional Music Keyboard

Unit code: T/600/6925

QCF Level 3: BTEC National

Credit value: 10

Guided learning hours: 60

● Aim and purpose

The aim of this unit is to enable learners to develop some of the skills required in order to use a music keyboard effectively.

● Unit introduction

A large number of musicians learn to play the piano or keyboard alongside their main instrument. The keyboard has a special place in the sphere of musical instruments because it serves a number of functions. It can be used to play harmonies in the same way as a guitar but can also be used for intricate solo melodies. Over the last few decades, the rise in MIDI has led to a new role for the keyboard. Keyboards can be used as the interface and mechanism for inputting data into the software programs. Whilst step input is possible and sometimes used, being able to play a keyboard well enough to input MIDI data negates the need for a certain amount of shaping of the MIDI data. Whilst other MIDI interfaces are available (drum pads, etc), it is the keyboard that is used most often in the music industry.

On completion of this unit, learners who have not played the keyboard or piano before will be familiar with the keyboard and how it is played. They will have experience of using correct fingering to play material of their choice. They will also be able to use a keyboard to input shaped MIDI data. This unit is not designed to produce accomplished keyboard players. Assessment of keyboard skills will be on how the instrument is utilised as a tool to create musical products rather than through technical ability on the instrument. Keyboard performance skills can be assessed in the specialist performance or techniques units.

● Learning outcomes

On completion of this unit a learner should:

1   Be able to use basic techniques when playing the keyboard

2   Know the functions of the keyboard

3   Be able to use the keyboard to input shaped MIDI data.

Unit content

1   Be able to use basic techniques when playing the keyboard

Basic technique: correct hand position; appropriate posture at the keyboard; rhythm exercises; technical exercises; practise with single hands; practise with both hands; using simple chord progressions

2   Know the functions of the keyboard

Functions in performance: solo instrument; effects; accompanying instrument eg chord sequences and common progressions; adding chorus to lines; single-finger chord functions; programming keyboard with samples; choosing and using different keyboard 'voices'

Functions for inputting MIDI: inputting MIDI data; shaping MIDI data at the input stage

Functions for textures and timbres: experimenting with effects, instrumental sounds; layering of sounds

3   Be able to use the keyboard to input shaped MIDI data

Input data: connecting keyboard to workstation; understanding role of MIDI keyboard

Shaped data: shaping of dynamics; rhythmic interest; expression

Assessment and grading criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria for a pass grade describe the level of achievement required to pass this unit.

Assessment and grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	**To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:**	**To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:**
P1 perform technical exercises competently, with few errors [SM]	**M1** perform technical exercises competently and accurately	**D1** perform technical exercises accurately and fluently
P2 describe the different functions of a keyboard	**M2** explain the different functions of a keyboard	**D2** comment critically on the different functions of a keyboard
P3 use a keyboard to input and shape MIDI data competently, with few errors.	**M3** use a keyboard to input and shape MIDI data competently and accurately.	**D3** use a keyboard to input and shape MIDI data accurately and fluently.

PLTS: This summary references where applicable, in the square brackets, the elements of the personal, learning and thinking skills applicable in the pass criteria. It identifies opportunities for learners to demonstrate effective application of the referenced elements of the skills.

Key	IE – independent enquirers	RL – reflective learners	SM – self-managers
	CT – creative thinkers	TW – team workers	EP – effective participators

Essential guidance for tutors

Delivery

For this unit, learners should have access to the relevant keyboards, recording/playback equipment and computer hardware and software that will enable them to initiate, develop and store their practical activities. Assessment will be through learners' portfolios of practical, written and recorded evidence.

The delivery of this unit is dependent on the resources available. If centres have enough keyboards, whole-class tuition may be possible. If this is not possible, small-group or even individual tuition is a viable approach. Learners will need to be introduced to the fundamental aspects of keyboard playing, for example fingering positions, correct posture of the hands and back. However, this unit should not be approached in the same way as traditional instrumental lessons. Learners should be encouraged to see playing the keyboard in the same way they would perhaps view a sequencing software package. In this instance, the keyboard is being used as a means to an end; it is being used as a tool. Those learners who show significant development over the course of this unit may choose to follow one of the specialist performance units in which their performance ability may be assessed.

Tutors should encourage learners to experiment with the keyboard. Initially, a keyboard may seem a daunting instrument. Learners should be shown the basic technique and have any mistakes corrected, but the focus of the unit is on how the keyboard can be used. Demonstrations of the functions available on the particular models of keyboards should be provided and then learners should be encouraged to use this knowledge to explore the keyboard's capabilities.

This unit will need to cover basic principles of MIDI data in order for learners to meet grading criterion 3. It may be that tutors wish to integrate aspects of this unit with *Sequencing Systems and Techniques Working with Music Notation Packages*. One of the most important things for learners is to understand why they are doing specific tasks. Asking learners to practise certain technical exercises is a good way of improving their technique, as long as they are able to see how the technique in question will support their ability to complete one of the assignments.

It is likely that tutors will cover each criterion under separate assignments because the criteria are fairly diverse. Separate assignments on each criterion will allow learners to see the different ways in which a keyboard can be used.

Finally, learners should be encouraged to practise their keyboard playing whenever possible. It is vital that they see how the ability to play the keyboard to a functional level can help them to progress in a large number of other units.

Outline learning plan

The outline learning plan has been included in this unit as guidance and can be used in conjunction with the programme of suggested assignments.

The outline learning plan demonstrates one way in planning the delivery and assessment of this unit.

Topic and suggested assignments/activities and/assessment
Introduction to unit.
Be able to use basic techniques when playing the keyboard.
Various technical exercises.
Assignment 1: Individual Practice and Preparation of Assessment Material 'Technical Exercises' – P1, M1, D1
Assessment feedback.
Know the functions of the keyboard.
Lectures and practical activities.
Assignment 2: Experimentation and Preparation of Assessment Material 'Functions of the Keyboard' – P2, M2, D2
Assessment feedback.
Be able to use the keyboard to input shaped MIDI data.
Lectures and practical activities – ongoing throughout the unit.
Assignment 3: Practise and Preparation of Assessment Material 'Inputting and Shaping MIDI Data' – P3, M3, D3
Assessment feedback.

Assessment

Most of the evidence for this unit will be provided by audio recordings. Learners should have the opportunity to demonstrate their keyboard skills on a number of occasions throughout the course of the unit.

Evidence for learning outcome 1 will need to show that learners are able to demonstrate their technical exercises. For example, learners could be recorded playing a number of exercises. For P1, learners will use both hands and will maintain a good position and posture. Errors will occur but the learner will not stop their playing. For M1, there will be no errors and the learner will maintain good rhythmic control and poise. For D1, there will be a confidence and fluency to the playing which will command musicality and communication of the exercise.

Learning outcome 2 can also be evidenced practically. Learners should provide evidence of their ability to use the different functions available on their keyboard. This could take a number of forms. A scenario-based assignment where learners are asked to create specific effects using the keyboard at the tutor's discretion is one option, as is recording learners talking through the different effects they can create on the keyboard. At P2, learners are likely to demonstrate a practical understanding of the functions of the keyboard and describe them. At M2, learners will expand on the evidence provided by those working at pass level by explaining the context in which the functions are used. At D2, learners will be able to compare and contrast functions of the keyboard and critically comment on which function would be used in a range of different contexts.

Learning outcome 3 is most likely to be evidenced through the creation of a MIDI piece. This need not be an extensive track; indeed it is likely to be a short extract. Video evidence of the learner inputting the data and the final piece itself would provide evidence for this Learning outcome. At P3, learners will perhaps make some errors, but will produce a competent result. At M3, learners will enter MIDI with accuracy. For D3, learners will input shaped MIDI parts and demonstrate proficiency.

Programme of suggested assignments

The table below shows a programme of suggested assignments that cover the pass, merit and distinction criteria in the assessment and grading grid. This is for guidance and it is recommended that centres either write their own assignments or adapt any Pearson assignments to meet local needs and resources.

Criteria covered	Assignment title	Scenario	Assessment method
P1, M1, D1	Technical Exercises	In preparation for future work where you will need to input data via a keyboard, you are required to improve your level practical skills.	Video of technical exercises demonstration.
P2, M2, D2	Functions of the Keyboard	For an open day at your centre, you have been asked to show visitors the functions of the electronic keyboards. You should prepare a 10-minute demonstration.	Video recordings of the practical demonstration. Supporting notes.
P3, M3, D3	Inputting and Shaping MIDI Data	For an open day at your centre, you have been asked to show visitors how musical data can be input and shaped on an electronic keyboard.	Video recordings of the practical demonstration. Supporting notes.

Links to other BTEC units

This unit forms part of the BTEC Music and Music Technology sector suite. This unit has particular links with the following unit titles in the BTEC Music and Music Technology suite:

Level 1	Level 2	Level 3
		Composing Music
		Sequencing Systems and Techniques
		Music Theory and Harmony
		Working with Music Notation Packages

Essential resources

Learners will need access to keyboards that are suitable for a range of tasks. If centres have MIDI keyboards that are able to be played locally, all the work for this unit may be carried out using them. If this is not possible, centres will need to provide access to keyboards with soundcards in addition to the MIDI keyboards.

Facilities to make audio recordings of learners' work are a necessity in delivering and assessing this unit. Learners will benefit from being able to hear their own keyboard playing as they progress through the unit in order to set new development targets.

Delivery of personal, learning and thinking skills

The table below identifies the opportunities for personal, learning and thinking skills (PLTS) that have been included within the pass assessment criteria of this unit.

Skill	When learners are …
Self-managers	setting goals and practising regularly, ongoing self-evaluation.

Although PLTS are identified within this unit as an inherent part of the assessment criteria, there are further opportunities to develop a range of PLTS through various approaches to teaching and learning.

Skill	When learners are …
Independent enquirers	exploring techniques and chord fingerings in edited music.
Creative thinkers	exploring the sound functions of keyboards to make practice more interesting and to identify separate parts
Reflective learners	reflecting on own performance, goal setting and self-evaluation
Team workers	working with others in exploring harmonic aspects of music-making, playing keyboard in ensembles, accompanying
Self-managers	practising and completing personal study on time for lessons and progression
Effective participators	actively suggesting examples, performances and styles to explore suggesting techniques with other learners.

Functional Skills – Level 2

Skill	When learners are …
ICT – Use ICT systems	
Select, interact with and use ICT systems independently for a complex task to meet a variety of needs	inputting and shaping MIDI data into an electronic keyboard using music software
Manage information storage to enable efficient retrieval	using music software
Follow and understand the need for safety and security practices	using music software.