

Unit 18 Journey into space

Exploring sound sources

ABOUT THE UNIT

This unit develops children's ability to extend their sound vocabulary, including the use of ICT, and to compose a soundscape. In this unit, children explore a wide range of sound sources, including ICT, to capture, explore, change and communicate sounds. They make expressive use of vocal and instrumental possibilities to create and structure compositions in groups and share these with the class.

WHERE THE UNIT FITS IN

This unit links to the ongoing skills unit (unit 15) by reinforcing the expressive use of sounds. It also builds on units 2, 7, 9 and 13. It leads to unit 20. This unit develops children's ability to listen with attention to detail over longer periods of time. It also encourages personal involvement and exploration of conflicting emotions and links to PSHE.

PRIOR LEARNING

It is helpful if children and teachers have:

- become familiar with the use of a tape recorder
- explored 'pre-set' sounds on electronic keyboards
- used sounds expressively
- developed skills through the activities described in units 2, 7, 9 and 13

VOCABULARY

In this unit children will have an opportunity to use words and phrases related to:

- sounds, *eg pitch, attack, decay and other musical elements*
- processes, *eg record, loop, reverse, layer, soundscape*
- context, *eg impact of ICT, new use of sounds*

RESOURCES

Stimulus:

- photographs/video clips of space exploration
- descriptive words

Sound sources:

- electronic keyboards
- voices
- classroom instruments
- tape recorders
- multimedia computer (optional)
- basic sequencer (optional)
- sound processor (optional)

EXPECTATIONS

at the end of this unit

most children will:

recognise and make creative use of the way sounds can be changed, organised and controlled (including using ICT); extend their sound vocabulary; combine sounds expressively

some children will not have made so much progress and will:

create carefully chosen sounds and linear sequences of sound

some children will have progressed further and will:

demonstrate musical sensitivity in selecting sounds and structures in relation to the intended effect; refine and improve their work; demonstrate imagination and confidence in the use of sound; take advantage of ICT equipment where available

LEARNING OBJECTIVES

POSSIBLE TEACHING ACTIVITIES

LEARNING OUTCOMES

POINTS TO NOTE

CHILDREN SHOULD LEARN

CHILDREN

INTRODUCTION: HOW CAN MUSIC DESCRIBE SPACE?

- to focus their listening
- Introduce the stimulus to the children, *eg space*. Discuss significant features, *eg enormous distances, the unknown*. Give information, *eg how planets in our solar system have acquired emotional images (eg Mars and war)*. Play excerpts of *The planets suite* by Holst. Do not ask the children to talk about the music, but help them focus their listening by reducing any distractions.
- Set the task of creating a soundscape. Explain that one aim of this unit is for the class to explore the widest range of sounds available to them.

- listen with concentration and some engagement for longer periods of time (5–10 minutes)

- Aim to create a feeling of awe by using exciting images of space. If possible, try to heighten the impact of the music by turning out the lights and using high quality sound production played loud enough to engage all the children.
- It is very helpful if the children are comfortable when listening to the music so that they can relax and enjoy the experience.

EXPLORATION: WHAT SOUNDS CAN WE USE TO DESCRIBE CONTRASTING MOODS?

- how sounds can be contrasted
- Discuss how it must feel to go on a space journey. Explore and identify different moods, *eg fear, elation, sensations, eg the pull of the Earth, G-force and weightlessness* and activity, *eg urgent, rapid action, long periods of inactivity*.

- identify contrasting moods and sensations

- Explore different moods and feelings and help the children to appreciate conflicting emotions and how these are handled. [Link to PSHE]

- about different textures
- Ask the children to explore sounds on untuned instruments and choose sounds to describe two contrasting moods, sensations and/or activities. When a variety of sounds have been chosen ask the children to try different ways of bringing the sounds together, *eg accumulative – adding sounds and creating increasing complexity, reductive – starting with a full texture and removing layers*.
- Remind the class about the contrasting moods and listen to a few selected groups. Discuss and note as a class those aspects that worked well.

- explore different textures using untuned sounds

- Put the emphasis on combining sounds and creating different textures, *eg open textures with a few well-spaced sounds, full textures with many layers*. Encourage the children to appreciate the overall effect and how this is created.
- The use of tuned instruments could take place at the same time as the previous activity so that groups of children could use keyboards or other tuned instruments in rotation.

- how pitched sounds, when combined, can sound relaxed or tense
- Ask the class to explore pitched sounds and how they can be combined. If possible demonstrate how some combinations sound tense and tight and others sound relaxed and loose. Ask the class to try to feel the difference as a physical sensation, tightening and loosening. Describe tight chords as 'X' chords and relaxed chords as 'O' chords. Play a sequence of combinations. Ask the children to create a sequence of 'XOXO' chords. Record and play them back to the class. Discuss the effect.

- create different effects using combinations of pitched sounds

- Extension activity:** Discuss different degrees of 'XO' where there can be a series of combinations which are all 'X' but become increasingly more tight, complex and tense.

- that sounds can be captured and modified using ICT
- Use a tape recorder to record children's voices individually and collectively on a tape recorder. Replay them. *Do your voices sound the same to you on the recording as when you speak?* Now record a cymbal struck hard and left to reverberate. Replay. Discuss how different the recording sounds. Experiment with other sounds, *eg suspended chimes, bells, drums*.
- Try playing the recordings back and change the controls in different ways. Use microphones in different ways and explore a wide range of sounds.

- change sounds using a tape recorder (and microphones)

- There is an opportunity here to consider why the sound of a recorded voice sounds different to that heard by the person who makes the sound. When we hear our own voices we are hearing the sound through the air (which is the same as the sound recorded) and through the head (which is not recorded). Ask the children to put their fingers in their ears to hear the sound through their heads.

- how to select sounds and resources to achieve an intended effect
- Help the children to record and reverse a variety of sounds, and observe and discuss the effects, *eg singing, whistling, playing the glockenspiel, the recorder*.
- Ask the children to explore other sounds and select those that create a feeling of vast distances and endless space. Encourage them to explore voice sounds as a whole class. Record and play back, changing the volume setting.

- use ICT to change and manipulate sounds

- Extension activity:** Record children's speaking voices on the computer's sound recorder. Reverse. Children predict how their names might sound when reversed, *eg Nageek Nivek*. They then record and reverse their names. *How close were you?*
- Reversed sounds have featured in many types of music, *eg in the Beatles' Strawberry fields forever, Sgt. Pepper, Rain, I'm only sleeping*.

- that pitch and duration may be altered using ICT, and that changes may be used in combination
- Explore how sounds may be altered, *eg using echo, reverberation, chorus, portamento, or whatever adjustable settings are available on keyboards*.
- Listen to *Under stars* from *Apollo: Atmospheres and soundtracks* by Brian Eno. Ask the children to describe how the sounds create different moods and atmospheres.
- Create an ostinato pattern using a sequencer to suggest a space vehicle travelling through deep space. Experiment with tempo controls and different sounds (*voices*).

- explain how sounds can create different intended effects

- Encourage children to imagine (and recall) sounds that are made by combining two or more sounds, *eg note clusters*.
- Encourage the pairs to consider overlapping sounds that create different textures and to explore the contrasted textures.

LEARNING OBJECTIVES

POSSIBLE TEACHING ACTIVITIES

LEARNING OUTCOMES

POINTS TO NOTE

CHILDREN SHOULD LEARN

CHILDREN

BRINGING IT ALL TOGETHER: HOW CAN WE USE SOUNDS TO CREATE A SOUNDSCAPE?

- to extend their sound vocabulary and achieve an intended effect
 - Reset the challenge of creating a soundscape to describe contrasting moods, sensations and/or events linked to space, *eg take off and weightless travel over long distances, conditions on different planets (eg hot swirling gases, cold frozen wastes)*. Ask the children to work in pairs or threes. Remind the children that the aim is to find as wide a range of sounds as possible. Encourage the use of ICT.
 - When the small groups have composed and practised their pieces, listen to the compositions, one at a time. Ask the class if they could be brought together to make an extended class composition in several sections or movements (like Holst's *The planets suite*). Devise an order, practise, revise and create a class composition.
- explore, select (using internalised sounds), combine and exploit a range of different sounds to compose a soundscape stimulated by space
- This task could be completed/developed by pairs or on their own during the week, so that more children could have access to electronic equipment.
 - **Extension activity:** Words could be added to provide another layer of sound. These words should be descriptive and abstract, not a narrative!
 - Recording the class composition can provide a resource for the future. It will also provide a record of the work completed in the primary school which could be usefully passed on to the next school.

EXTENSION AND FUTURE LEARNING

In addition to the examples given in the 'Points to note' section, children could go on to:

- use a multimedia-authoring program to present an interactive 'score' of their space compositions, including graphic notation, and recorded sounds activated by hyperlinks or 'hot spots'. (See unit 6a: Multimedia presentation, in *Information technology: A scheme of work for key stages 1 and 2* DfEE /QCA, 1998)
- use an effects processor, eg *Alesis microverb*, to change sounds during performance
- download WAV sounds from the internet and make changes to these using the sound recorder
- swap musical sounds and sequences with other schools using e-mail attachments
- identify 'effects', eg *echo*, *reverb*, in the popular music of the 1950s

ENRICHMENT

- Children could visit the NASA website, or find images of space and the planets in a CD-ROM encyclopedia.
- They could work with a recording engineer to make a recording of their composition and experiment with different ways in which the sound can be manipulated.

