

MUSIC TECHNOLOGY IN EARLY YEARS AND PRIMARY SCHOOLS

David Wheway
www.LMPi.co.uk

HARDWARE

Microphones:

Most microphones can be used – including computer microphones. Many require a mini-jack adapter to fit into the computer socket. As a general rule - the better the quality of the microphone the better the quality of the recording. 'Uni-directional' microphones are good for close up and shutting out nearby sounds. 'Omni-directional' and stereo are good for group work.

Speakers:

Your computer speakers may be adequate for classroom use – but usually aren't. You may wish to purchase powered speakers, which range from about £35 upwards for a decent pair - into the hundreds.

Alternatively, you could amplify using equipment already in school (e.g. whiteboard amp/speakers, Coomber P.A. systems, Hi Fi systems, guitar amps.).

Recorders

At the time of updating this section (Sept 2011) the choice of recorders is vast. Most mobile phones will now record, although the quality may not be excellent and there may be a restriction on how far away sounds can be picked up. However - for close up work they are worth considering - and always available. It also means (if you are brave) inviting a class to bring in their phones to record sounds, including when out and about.

ipods can have a microphone attachment - and these give reasonable sound range and sound quality.

USB recorders can be bought for under £30 and again give a reasonable range and quality

Many recorders - including mobile phones allow easy transfer of data to laptops/PCs
For excellent sound range and sound quality I would currently recommend the 'Zoom H2' digital recorder which is around £130 at time of writing (Sept. 2011)

FILE TYPES

WAV and MP3 files

Audio files which can be moved between and within music programs, and can be burnt as audio to a CD often have .wav (or.mp3) extensions.

MP3 files are about one tenth the size of .wav files and it is worth converting from wav to MP3 to save space and time. One of the easiest ways to do this is to download the LAME encoder option from the Audacity website (see below), although it appears the latest version of Audacity comes with integrated encoder.

Files can be saved on a memory stick to transfer - eg to computer suite workstations. There is some loss of quality with mp3 - so a treasured performance is better saved as a wave file, especially if it is to be amplified and/or presented.

PROGRAMMES

Sound Recorder

This simple but effective program can be found as standard on most PCs (unfortunately the latter versions for Vista and Windows 7 only offer recording).

Vista is hopeless for Sound Recorder (sorry if that's your only option) - but previous versions of Sound Recorder can be saved on memory stick and transferred to Windows 7. Search for 'sndrec32' and transfer this file.



Sound Recorder: Pros:

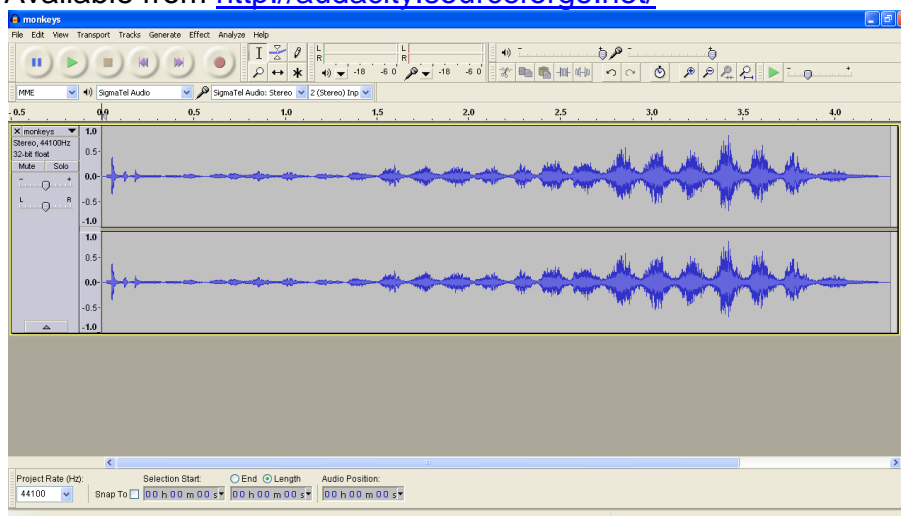
- VERY simple to use
- Up to 60 seconds of sounds can be recorded then played back
- Good quality recording
- Recordings can be edited to delete unwanted sounds at beginnings and ends of recordings
- Sounds can be changed: alter dynamics, alter speed, play backwards, add echo.
- Short pieces can be played back for pupil appraisal
- Sounds can be layered using the 'mix' option under 'Edit'

Cons:

- It doesn't offer a multi-tracking facility – although files can be mixed
- Sound Recorder can't record large wave files
- 60 second time limit – although this can be circumvented by recording and inserting blank files.
- Windows VISTA and Windows 7 – Sound Recorder doesn't have editing functions of earlier platforms. (for advice on how to copy the program from older computers go to the LMP website).

Audacity

Available from <http://audacity.sourceforge.net/>



Too good to be true! This audio recording program not only records multi-tracks of

'sufficient' length, but also offers a wealth of editing facilities. A good step up from the PC's Sound Recorder – although worth transferring audio files between the two. The program has very user-friendly 'Help' support.

Alternative:

Cool Edit 96

Similar to Audacity – a little more complicated but without the latency problems.

Use for record and playback rather than editing. Go to

www.threechords.com/hammerhead/download.shtml and click on 'Download Cool Edit 96' at the bottom of the page.

APPLICATIONS

Early Years (usage of audio recording)

- *Record & listen to/analyse songs*
- *Use sound recorder to record sounds and change them – including vocal*
- *Use to collect and edit 'often-used' extracts of recorded music (eg for dance, movement, singing, listening)*
- *Children use microphones to sing*
- *Using EFFECTS drop down menu in Sound Recorder*
- *Explore/replicate sounds in the environment*
- *Record stories with sounds and narration*

Primary years

...all the above plus...

- *experimenting with creating and adapting vocal sounds including words*
- *rehearse, produce and evaluate recordings*
- *record and evaluate singing*
- *understand how to create patterns (sequences) by making choices when recording*
- *layer sounds by inserting files in 'Sound Recorder' and Audacity*
- *develop language to describe sounds and soundscapes*
- *make improvements to their work*
- *explore musical elements: pitch (transpose), duration (echo and reverb), dynamics (volume and decibels), tempo (speed), timbre (effects), texture ('mix' and 'insert' and silence*
- *learn how sounds can be made in different ways (for example, vocalising, clapping, by musical instruments, in the environment) and describe using given (screen image of waves) and invented signs and symbols*
- *respond to a range of musical and non-musical starting points*
- *analyse recorded sounds*
- *develop performing, composing and appraising*