Computing Knowledge Organiser – Audio Production

Sequence:

Recording sound → Editing audio → Planning a podcast → Creating a podcast → Combining audio → Evaluating podcasts

Unit introduction:

Learners will identify the input device (microphone) and output devices (speaker or headphones) required to work with sound digitally. Learners will discuss the ownership of digital audio and the copyright implications of duplicating the work of others. In order to record audio themselves, learners will use Audacity to produce a podcast, which will include editing their work, adding multiple tracks, and opening and saving the audio files. Finally, learners will evaluate their work and give feedback to their peers.

Key Vocabulary

Audio - Sound, including music, sound effects and podcasts

Podcasts - A spoken word file that can be downloaded for listeners

Input - A device to send audio to the device/computer

Output - A device to listen to audio from the devise/computer

Microphone - An input device that change sounds into electrical signals

Computer Safety

- *To know how to recognise malicious behaviour*
- *Know how to respond to malicious behaviour on the internet by reporting to an adult, website, IS provider, police, childline, CEOP*
- *To know which websites are safe to do searches on*
- *To how to use the internet safely and securely by keeping their personal details confidential and reporting any suspicious online activity*
- *To know that anything I share online will stay there to be seen and used by others*
- *To report unsafe sites or content to an adult.*

Progression

This unit progresses students' knowledge and understanding of creating media, by focusing on the recording and editing of sound to produce a podcast. Following this unit, learners will explore combining audio with video in the 'Video editing' unit in Year 5.

Input and Output Devices

We use input devices to send the audio to the device/ computer.
We use output devices to listen to the audio from the device/ computer.

Input Devices	Output Devices
Microphones are input devices that change sound into electrical signals, which can then be recorded or transmitted.	Digital speakers turn the electrical signal into an audio output that can be heard by the listener.
With the help of special cables, musical instruments can be linked to computers, and become input devices.	Headphones are worn over the ears of the listener, so that only they can hear the sound output.

Some devices are capable of acting as both input and output devices. Examples include headsets, smartphones, and voice assistants (e.g. Google Home and Amazon Echo).

Using Software

Audacity is one example of an audio editing tool, but many others are available. For example, you can use the voice memo recorder on a tablet.

Pause, Play, Stop, Skip to start, Record, Skip to end

The sound is shown as a waveform. We should aim for it to peak at around 0.5/ -0.5

How to Record a New Track

1. Go to the tab 'Tracks' and then 'Add New.'
2. Name the new track
3. Click in the track's window to select it.
4. Press record to begin recording into the new track.

Got to the 'file' tab and 'Save Project' to save your work. You can also delete recordings, but you should only ever delete your own files!

Creating Podcasts

Podcasts are a type of spoken word file that can be downloaded by listeners. A user can often choose to download the whole series of podcasts.

Some examples of podcasts are 'Stories Podcast', 'Six Minutes' and 'Brains On! Kids Science Podcast.'

Features of podcasts include:

Sounds: Voices, jingles, background music, sound effects

Information: Presenters' names, name of podcast, introduction, main section, conclusion.

Top Tips for High-Quality Podcasts

- Speak clearly
- Avoid fillers ('um', 'like')
- Avoid coughing/ sneezing
- Take turns to speak
- Avoid background noise
- Don't touch the microphone
- Choose music carefully