# Year 4 – Audio editing

## Unit introduction

In this unit, learners will initially examine devices capable of recording digital audio, which will include identifying the input device (microphone) and output devices (speaker or headphones) if available. 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.

## Overview of lessons

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| **Lesson** | **Brief overview** | **Learning objectives** |
| 1. Digital recording | In this lesson, learners will familiarise themselves with digital devices capable of recording sound and/or playing audio. Learners will identify devices’ inputs (microphone) and outputs (headphones or speakers). Learners will consider ownership and copyright issues relating to the recording of audio.  | To identify that sound can be digitally recorded:* I can identify digital devices that can record sound and play it back
* I can identify the inputs and outputs required to play audio or record sound
* I can recognise the range of sounds that can be recorded
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| 2. Recording sound | In this lesson, learners will record their own sounds and play back the recorded audio. They will also listen to a range of podcasts and identify the features of a podcast. | To use a digital device to record sound:* I can use a device to record audio and play back sound
* I can suggest how to improve my recording
* I can discuss what other people include when recording sound for a podcast
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| 3. Creating a podcast | In this lesson, learners will plan and begin recording their own podcast. They will also discuss the importance of saving their work and save their recordings as a file.**Note:** Due to the amount of time required to plan the podcast content, the written parts of the planning template could be completed in a different subject’s lesson (e.g. English, or a subject related to the podcast content). | To explain that a digital recording is stored as a file:* I can plan and write the content for a podcast
* I can discuss why it is useful to be able to save digital recordings
* I can save a digital recording as a file
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| 4. Editing digital recordings | In this lesson, learners will open their existing work and continue recording their podcast content. Learners will also edit their recordings, for example by changing the volume of the recording or making the recording fade in or out. | To explain that audio can be changed through editing:* I can open a digital recording from a file
* I can discuss ways in which audio recordings can be altered
* I can edit sections of of an audio recording
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| 5. Combining audio | In this lesson, learners will record additional content for their podcast, such as sound effects or background music. The audio will be combined, or mixed, with their existing digital recordings and exported as an audio file. | To show that different types of audio can be combined and played together:* I can discuss sounds that other people combine
* I can choose suitable sounds to include in a podcast
* I can use editing tools to arrange sections of audio
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| 6. Evaluating podcasts | In this lesson, learners will export their digital recordings so that they can be listened to on a range of digital devices. Learners will give feedback on their own and their peers’ podcasts, including areas for improvement. | To evaluate editing choices made:* I can explain that digital recordings need to be exported to share them
* I can discuss the features of a digital recording I like
* I can suggest improvements to a digital recording
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## 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.

Please see the learning graph for this unit for more information about progression.

## Curriculum links

[National curriculum links](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/425601/PRIMARY_national_curriculum.pdf)

**Computing – KS2**

* Select, use, and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems, and content that accomplish given goals, including collecting, analysing, evaluating, and presenting data and information
* Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

**Science – Year 4 (Lesson 2)**

* **Sound:** Find patterns between the volume of a sound and the strength of the vibrations that produced it
* **Sound:** Recognise that sounds get fainter as the distance from the sound source increases

**English – Years 3 and 4 (Lesson 3)**

* **Writing – composition:** Plan their writing by discussing and recording ideas
* **Writing – draft and write by:** In non-narrative material, using simple organisational devices [for example, headings and subheadings]
* **Writing:** Read aloud their own writing, to a group or the whole class, using appropriate intonation and controlling the tone and volume so that the meaning is clear

**Music – KS2 (Lesson 5)**

* Improvise and compose music for a range of purposes using the interrelated dimensions of music

[**Education for a Connected World links**](https://www.gov.uk/government/publications/education-for-a-connected-world)

**Copyright and ownership**

* I can explain why copying someone else’s work from the internet without permission can cause problems (Y3)
* I can give examples of what those problems might be (Y3)
* When searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it (Y4)
* I can give some simple examples (Y4)

## Assessment

### Formative assessment

Assessment opportunities are detailed in each lesson plan. The learning objectives and success criteria are introduced in the slide deck at the beginning of each lesson and then reviewed at the end. Learners are invited to assess how well they feel they have met the learning objective using thumbs up, thumbs sideways, or thumbs down.

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### Summative assessment

Within this unit, a rubric is used to assess learners’ work after Lesson six.

* Please see the assessment rubric document for this unit.

## Subject knowledge

**Lesson 1:** You will need to be familiar with the location of microphones and/or speakers on digital devices capable of recording sound. You will also need to be familiar with using Audacity to record sound.

**Lesson 2:** You will need to be familiar with using Audacity to record audio, which should include how to delete individual tracks.

**Lesson 3:** You will need to be familiar with using Audacity to record sound.

**Lesson 4:** You will need to be familiar with using Audacity to edit audio, including altering the volume and fading sections of audio in and out.

**Lesson 5:** You will need to be familiar with using the **Copy**, **Paste**, and **Time Shift** tools in Audacity.

**Lesson 6:** You will need to be familiar with using Audacity to export audio recordings.

Enhance your subject knowledge to teach this unit through the following training opportunities:

### Online training courses

* [Raspberry Pi Foundation online training courses](https://www.futurelearn.com/partners/raspberry-pi)

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### Face-to-face courses

* [National Centre for Computing Education face-to-face training courses](https://teachcomputing.org/courses)

Resources are updated regularly — please check that you are using the latest version.

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