NCFE Level 1/2 Technical Award in Music Technology (603/7008/7)

Teacher\Department		**Content area**	4: **Sound Creation**
Guided Learning Hours (GLH)	24 GLH	**Lessons**	24 x 1 hour lesson

Teaching content
4.1 Sound creation 4.1.1 Forms of media 4.1.2 Types of sound creation 4.1.3 Methods of sound creation 4.1.4 Arranging sounds 4.1.5 Exporting sound creation
Opportunities to embed English and maths
Writing: spelling and grammar (All Lessons) Discussion (All lessons) Oracy (All lessons) Maths (Lessons 11, 12)
Opportunities to embed equality and diversity
Opportunities to embed Prevent duty and British values

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
1	**Starter Activity: 5 mins:** How is sound used in the following forms of media? 1. Adverts. 2. Movies. 3. Video games. Learners may mention: ● Sound effects. ● Music. ● Speech. **What you will learn:** You must be able to: • List the different forms of media. • Define the different forms of media. • Recreate famous jingles using your DAW. You may also be able to: • Use examples to support your definitions. • Create an original jingle for a radio station. **Forms of media:** This lesson looks at the different forms of media that will be explored: video games, jingles, movies, podcasts, TV shows, animations, radio broadcasts theatre, advertisements and installations. **Reflective question:** How could we categorise these forms of media? Feedback: visual (video games, movies, TV shows, installations, advertisements, animations), non-visual (jingles, podcasts, radio podcasts), live (theatre, TV shows, radio broadcasts).	Computer.	Direct questioning.	**1.1**

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	Activity 1: Forms of media: 15 mins: Learners are to create a one-page fact file of the definitions of each form of media. **Stretch & challenge:** to compare the different forms. Learners may make links between forms that share similarities E.g., movies and TV shows. Feedback: Direct questions for learners to define the different forms. Check that all learners have correctly understood, learners can self-mark/correct during feedback. **Jingles:** Explain that a jingle is a short slogan or catchphrase that has an accompanying melody and music. The purpose of a jingle is to be easily recognised and remembered. This means that a jingle should be short and catchy. **Reflective question:** Can you think of any jingles? Feedback: answers will vary. **Activity 2: Jingles: 10 mins:** Learners are given four famous jingles using staff notation. They need to input these into their DAW to see if they can recognise them. Feedback: 1. We buy any car. 2. Moon Pig. 3. Windows. 4. McDonalds. **Activity 3: Create a Jingle: 15 mins:**		Direct questioning/ random selection. Teacher circulation during task, supporting/ questioning learners.	

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	You must create a **jingle** for a radio station. **Radio station name:** NCFE 101.1. **Content:** Music Technology. **Target audience:** Musicians. Your jingle should: • Be 5–10 seconds long. • Include the name of the radio station. • Have a catchy melody or hook. Feedback: Learners play their final jingle back to the class. Is the melody memorable? Does it fit within the time limit? Have they included the name of the radio station? **Progress check:** 1. What form of media is intended to be downloaded device as a series of episodes? 2. Name one live form of media. 3. Name one form of media that would have a trailer. 4. What is a jingle? Feedback: 1. Podcasts. 2. Theatre/TV Shows. 3. Movies/TV Shows/Video Games. **4.** A short slogan/catchphrase that has a short piece of music or tune that is used in advertising. **Lesson recap:**		Peer evaluation about success of jingle. Self-assessed by learners and score logged in work book.	

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	List the different forms of media. **Define** the different forms of media. **Recreate** famous jingles using your DAW. **Use** examples to support your definitions. **Create** an original jingle for a radio station. **Home study:** In our next lesson we will be looking at a type of sound creation called Foley. Find out the following: 1. What is Foley? 2. How is it used to create sound effects? Resources: Adobe.com: Discover the hidden world of Foley sound effects. **End of Lesson.**			
2	**Starter Activity: 5 mins:** When you watch a movie or television program, how do you think the sounds that you hear are made? Feedback: answers will vary. Ask learners to consider if all the sounds are made during the original filming? How else could sounds be created? **What you will learn:** You must be able to: • **Define** Foley. • **Identify** how polar patterns can be used to record sound. • **Create** Foley sound effects using physical props for a short clip.	Computer/ Microphones with different polar patterns/ Wooden twigs/cornflower /paper/ DAW/ headphones.	Whole class discussion.	**4.1.2** **4.1.3**

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	You may also be able to: • **Record** high quality Foley that is synchronised with the given footage. **Subject Content:** In this lesson learners are introduced to the concept of Foley and use of physical props to make sound effects. They will also learn about directional polar patterns. **Activity 1: What is Foley?: 8 mins:** Watch the video about making sound and make notes in your workbook on how Foley is created. A potential video is **Great Big Story:** The Magic of Making Sound, which may be available on YouTube. **Stretch & Challenge:** Can you think of another way of making a rain sound effect? Feedback: answers will vary. Share the learners the key term and example on the slide. Ask them to share their ideas. Key term: **Foley** - a way of creating and performing everyday sounds using physical props (with any object). It is performed and recorded live in a recording studio using microphones. **Reflective question (optional**): teachers can choose to present an image of a Foley studio on screen and ask learners to identify what they see. **Recording Foley**: When recording Foley, you will want as quiet a space as possible. This will minimise the amount of background noise in the recording. You will also want to use a microphone with a directional polar pattern.		Whole class discussion of ideas. Leaners present information/ answer questions.	

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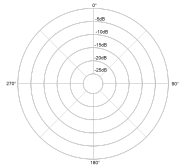
	Key term: **Polar Pattern -** the directions in which a microphone is more and less sensitive to sound. **Polar patterns:** The diagram on screen is used to demonstrate the direction in which a microphone is more or less sensitive to sound. When a polar pattern is directional, it is more sensitive to sound in at least one direction.  **Activity 2: Polar Patterns: 10 mins:** Create a **one-page** fact file that explains: 1. What a polar pattern is. 2. What a cardioid polar pattern is. 3. What a lobar (shotgun) polar pattern is. You should use diagrams to support your explanations. Learners might find it useful to look at: Andertons | Microphone Polar Patterns Explained and Sweetwater | Lobar Polar Patterns. **Stretch & Challenge:** How could these polar patterns be used to capture high quality Foley? Feedback: Possible responses include: use the null to reject background noise, use lobar to focus on a small area. In the next section, there are diagrams of both cardioid and		Learners self-assess.	

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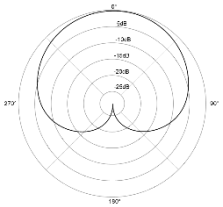
	lobar. It would be useful to demonstrate live the different polar patterns using a microphone. **Polar pattern types**: All microphones have polar patterns. When recording Foley, you will mostly want to use either: ● A cardioid polar pattern. ● Or a lobar (shotgun) polar pattern. These are both directional polar patterns. **Cardioid:** The diagram on screen demonstrates where a microphone with a cardioid polar pattern is more and less sensitive.  **Reflective question**: what information does this diagram tell you? Feedback: The outer reaches is where the microphone is most sensitive and will pick up the most sound. The top is where is where the microphone is **least sensitive** and will reject sound. This is known as the **null**. **Lobar (shotgun):** The diagram on screen demonstrates where a microphone with a lobar polar pattern is more and less sensitive.			

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	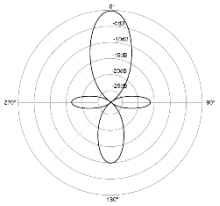 **Reflective question**: what information does this diagram tell you? Feedback: The microphone would be least sensitive from the sides. This would be the null. The microphone would be most sensitive from directly in front and behind. **Activity 3: Foley Physical Props: 20 mins:** You will be given: 1. Wooden twigs. 2. Bag of cornflower. 3. Piece of paper. You must use these physical props to create the sound effects for the following clips: • Crackling Bonfire. • Footsteps in the snow. Your teacher will now demonstrate how to set up the video in your DAW. Feedback: Learners analyse against the success criteria. **Progress check:** 1. Define Foley. 2. What method of sound creation does Foley use? 3. Give one advantage of using Foley. 4. Give one disadvantage of using Foley			

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	Feedback: 1. Creating and performing everyday sounds to match actions. 2. Physical props. 3. Realistic / synchronised with footage / unique. 4. Time consuming / requires equipment / quiet space. **Lesson recap:** **Define** Foley **Identify** how polar patterns can be used to record sound **Create** Foley sound effects using physical props for a short clip **Record** high quality Foley that is synchronised with the given footage **Home study:** Find a **short television** advert (E.g. on YouTube). Make sure you sound is **muted.** 1. Write down all of the sounds that you would be able to create using **Foley**. 2. What **physical props** could you use to make those sounds? **End of Lesson.**			
3	**Starter Activity: 5 mins:** For your **Home Study** you were asked to: Find a short television advert. Make sure your sound is muted, then: 1. Write down all of the sounds that you would be able to create using Foley. 2. Consider what physical props could you use to make those sounds. Share your findings with the person next to you.	Computer/ DAW/ headphones.	Class teacher circulation.	**4.1.2** **4.1.3**

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	What you will learn: You must be able to: • **Note** how Foley recordings can be edited and manipulated. • **Apply** your understanding to manipulate a pre-recorded Foley. You may also be able to: • **Explain** how physical props could have been used to create Foley in a form of media. **Subject Content: Editing Foley recordings:** In this lesson learners will learn how to edit and manipulate Foley recordings. **Activity 1: Foley Physical Props: 8 mins:** Watch the video clip: **Café Scene.** Explain: 1. **Two** ways that you think physical props could have been used to create Foley sound effects. 2. **One** possible advantage of using physical props to create Foley sound effects. 3. **One** possible disadvantage of using physical props to create Foley sound effects. Feedback**:** 1. Answers will vary. 2. Realistic / synchronised with footage / unique. 3. Time consuming / requires equipment / quiet space. **Foley**: A major benefit of Foley is that your sound effects will be synchronised with the actions on screen. However, sometimes it is still necessary to edit or process the audio within your DAW to suit the media.	Café Scene video clip (provided)	Class discussion/ direct questioning.	

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	Reflective question: What different ways could you edit or process Foley audio within your DAW? Feedback: Methods could include cutting, trimming, looping, time-stretching, adding reverb to match the physical space, using EQ to make something seem close or further away. **Recap: Time Stretch:** We can use an algorithm in our DAW to time stretch audio files. There are different types of algorithms available depending on how we want to process our audio. The default time stretch setting will mean that: speeding up the playback will also higher the pitch, slowing down the playback will also lower the pitch. For example, playback at double speed would put an audio file up an octave. **Activity 2: Foley Physical Props: 15 mins:** You will be given a short clip that has had footsteps recorded for it. There are two problems with the recording: 1. The footsteps are not in time. 2. The space in which the footsteps are seen/heard is not correct. Fix these problems. **Stretch & Challenge:** What other sound effects would need to be added to this short scene? Feedback: 1. The footsteps are not in time. • Use audio editing to cut the footsteps and move them into time manually. • Use time-stretch to make the entire clip faster. 2. The space in which the footsteps are seen/heard does not match the footage. • Add a reverb when the character enters the large space.		Learners self assess and log score in workbook.	

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	• This would need to be automated so that it is only heard once the space changes. Stretch and challenge: accept any reasonable suggestions. **Progress check:** 1. Define Foley**.** 2. What effect plugin can you use to make a recording sound as though it is in a different space? 3. Give **one** advantage of using Foley. 4. Give **one** disadvantage of using Foley. Feedback: 1. Creating and performing everyday sounds to match actions. 2. Reverb. 3. Realistic/synchronised with footage/unique. 4. Time consuming/requires equipment/quiet space. **Lesson recap:** **Note** how Foley recordings can be edited and manipulated **Apply** your understanding to manipulate a pre-recorded Foley **Explain** how physical props could have been used to create Foley in a form of media. **Home study:** Create or find three physical props that can be used in this extract. You should bring these to our next lesson to be used to record Foley. **End of Lesson.**			

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4	**Starter Activity: 5 mins:** Watch video provided by your teacher. What is unusual about how the Foley has been created for this film? Here, show a video where unusual objects have been used to create particular effects. A suggested recording is **How The Sound Effects In 'A Quiet Place' Were Made Insider** (may be available on YouTube**)** Feedback: Answers may include the use of unusual objects, and as characters are not human physical props do not have to be realistic. **What you will learn:** You must be able to: • **Use** physical props to create Foley. • **Use** Foley recording techniques to capture high quality audio. You may also be able to: • **Use** editing techniques to improve the quality of your captured Foley. **Subject Content: Foley/Physical Props:** In this lesson learners will put together the skills they have acquired during the previous lessons. **Activity 1: Foley Physical Props: 20 mins:** Using the physical props that you created or found for this lesson, record as many different types of Foley sound effects that you can. You should: • Use **directional** polar patterns • Use the polar patterns to **reject background noise** • Ensure that your recordings are free from **distortion** Ensure that you demonstrate how to capture Foley using the equipment. Feedback: Circulate during time allowed and listen to work in progress.	Computer/ DAW/ headphones/ microphones/ props/interfaces /XLRS.	Direct Questioning	**4.1.2** **4.1.3**

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	Ensure that learners follow the steps for success. **<u>Activity 2: Editing: 12 mins:</u>** Now you need to edit and process your Foley recordings. You could: • Use **truncating** to remove excess noise around the sound effect. • Use **EQ** to remove **low rumble.** • Use **EQ** to remove **resonant** or harsh frequencies. • Use **EQ** to **shape/change** the tonal balance of a sound effect. Ensure that you demonstrate how to edit using a range of these techniques above. **<u>Truncate:</u>** To truncate (change the length of an audio region) we can use the trimming tool. This is a non-destructive process. This means that you can undo this process at any point when editing. **<u>Progress check:</u>** Listen to someone else's Foley recordings. Write down in their workbook: • What has been successful with their Foley recordings. • What could be improved the next time they record Foley. **<u>Lesson recap:</u>** **Use** physical props to create Foley. **Use** Foley recording techniques to capture high quality audio. **Use** editing techniques to improve the quality of your captured Foley.		Evaluate against success criteria. Teacher listening to learners editing. Verbal feedback. Peer assessment.	

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	Home study: Watch a video about why it is difficult for Foley artists to make footstep sounds. Make notes in your workbook about recording footsteps using Foley. What are the difficulties with this method? Possible recording is 'Why It's So Hard For Foley Artists To Make Footstep Sounds', by Movies Insider. This may be available on YouTube [accessed April 2023]. **End of Lesson.**			
5	**Starter Activity: 5 mins:** Grid of six questions. Answers follow each: What is Foley? (Creating and performing everyday sounds to match actions). What polar pattern is this? (Cardioid). What method is used to record Foley? (Physical props). What polar pattern is this? (Lobar (shotgun)) Give one advantage of using Foley. (Answers will vary). Why does Foley need to be recorded in a quiet space? (To reduce background noise in the recording). **What you will learn:** You must be able to: • **Create** a step-by-step guide to creating Foley. You may also be able to: • **Explain** how to capture high quality Foley. • **Evaluate** the advantages and disadvantages of using Foley. **Activity 1: Foley Guide: 25 mins:**	Computer/ DAW/ headphones	Random direct questioning.	**4.1.2** **4.1.3**

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	Now that you have: ● Learned what Foley is. ● Recorded your own Foley. ● Edited your own Foley. ● Used your own physical props. ● Synchronised Foley recordings with footage You should create a step-by-step guide on how to record Foley. Make sure you explain how to ensure record high quality audio. Things to consider: ● Use of microphones. ● Use of polar patterns. ● Types of physical props. ● Setting appropriate gain levels. ● Recording environment. ● Editing and processing tools. Your guide should: ● Demonstrate using video recordings/screencasts how to record Foley. ● Have clear instructions that are in your own words. ● Use images and diagrams to support your explanations. ● Be no more than three mins long. **<u>Activity 2: Evaluation: 10 mins:</u>** What do you think are the advantages and disadvantages of using Foley to create sound effects? Use the table in your workbook to create a comparison. <u>Feedback:</u> Advantages: ● Match sound exactly to actions.		Feedback in PPT. Learners self assess and log score in workbook.	

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	• Will be able to get perfect synchronisation with footage. • Can re-record as many times as required to get variation of sounds. • Unique recordings. • Do not have to pay for them (you own them). • High quality recording. Disadvantages: • Can be time-consuming. • You need audio recording equipment. • You need to have a range of props. • You need a quiet space to avoid background noise interference. • Might not be physically possible to recreate the sound exactly. • You need to know how to professionally record. **Progress check:** 1. Define Foley 2. What polar pattern is best used for Foley recordings? 3. Give **one** advantage of using Foley. 4. Give **one** disadvantage of using Foley. 5. What equipment would you need to record Foley? Feedback: 1. Sounds recorded using physical props to match actions. 2. Lobar (shotgun) or cardioid. 3. Sounds will be synchronised to match actions exactly on screen. 4. You need a lot of recording equipment to be able to record. 5. Microphone with directional polar patter, XLR, audio interface, range of physical props, recording studio/quiet recording space.			

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	Lesson recap: **Create** a step-by-step guide to creating Foley. **Explain** how to capture high quality Foley. **Evaluate** the advantages and disadvantages of using Foley. **Home study:** In our next lesson, we will be looking at effects library samples. 1. What are effects library samples? 2. What free online resources are available? Write your answers in your workbook. **End of Lesson.**			
6	**Starter Activity: 2 mins** What do you think an effects library is? Feedback: An effects library is **a categorised bank** of sound effects. **What you will learn:** You must be able to: • **Define** 'effects library'. • **List** the different types of effects libraries. • **Plan** what sound effects you will need for a short form of media. You may also be able to: • **Collate** sound effects from online effects libraries. **Effects libraries:** Effects libraries used to be stored on physical hardware (CDs/DVDs). Today, effects libraries are stored online. You can filter the sound effects using various	Computer/ DAW/ headphones	Class discussion.	**4.1.2** **4.1.3**

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	categories or by using a search function. This makes them accessible and easy to use. **Reflective question:** What categories might you want to filter sound effects by? Answers will vary. Feedback: Effects libraries contain sound effects that have been created using various types and methods of sound creation. There are three categories of effects libraries: ● Commercial libraries. ● Online resources. ● DAW loops. **Commercial Libraries:** Commercial libraries are professionally recorded sound effects that can be purchased for a fee. These can then be used royalty free in your sound creation projects. For example, you can purchase a library of sound effects from the BBC. **Reflective question:** What does royalty-free mean? Feedback: Although the user might have to pay a one-off fee or license fee to use the item, they do not have to pay every time they use it after this. **Online Resources:** Online resources contain both professional and amateur recordings of sound effects. They can either be entirely free to use or include a one off or subscription fee to use royalty free. Some examples of online resources (as of April 2023) include: freesound.org, sound-effects.bbcrewind.co.uk, pixabay.com. These could be added to the PPt slide. **Activity 1: Plan: 20 mins:** You are applying for a **job** to create the **sound effects** for an animation.		Teacher circulation and verbal/written feedback. Learners self assess and log score in workbook.	

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	The company have given you an **extract** from the animation and would like to see a **detailed plan** of the sound effects that you would include. Using the table **template** on the next page, **plan** the **sound effects** that would be required for the extract. **Activity 2: Collating sound effects: 10 mins:** Use the following online resources to collate sound effects that you have identified in you plan. Online effects libraries: • freesound.org • sound-effects.bbcrewind.co.uk • pixabay.com **Stretch and challenge:** Create folders to categorise your samples. **Progress check:** 1. What are the three categories of effects libraries? 2. Give **one** advantage of using an effects library sample for a sound effect. 3. Give **one** disadvantage of using an effects library sample for a sound effects. Feedback: 1. Commercial libraries/Online resources /DAW loops. 2. Professionally recorded, quick, cheap/free. 3. Might not fit visual media, could take a while to find correct sound. **Lesson recap:** **Define** ‘effects library’. **Describe** the advantages and disadvantages of using effects libraries. **Plan** what sound effects you will need for a short form of media.			

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	Collate sound effects from online effects libraries. **Home study:** Using the online resources we used today and any others that you researched for last lesson's home study, continue to collate sound effects for your project. You should spend 15 mins finding additional sound effects. **End of Lesson.**			
7	**Starter Activity: 5 mins:** In our last lesson we began collating sound effects from effects libraries. Discuss with the person next to you: 1. How have you found this process? 2. What have been the challenges? 3. How does this method compare to using physical props? **What you will learn:** You must be able to: • **Collate** sound effects from online effects libraries. • **Place** sound effects so that they are synchronised with the extract. • **Import** a video file to a DAW project. You may also be able to: • **Collate** appropriate sound effects. • **Accurately** synchronise sound effects with the extract. **Activity 1: Collating sound effects: 15 mins:** In our last lesson, you began collating sound effects for your project. This must be **finished** before starting your project.	computer/DAW/ headphones.	Direct questioning. Teacher circulation to check	**4.1.2** **4.1.3** **4.1.4**

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	Use online resources to collate sound effects that you have identified in you plan. Some further potential online effects libraries to provide to your learners: • freesound.org • bbcsfx • snapsound **Importing Video File:** Provide DAW specific instructions to learners here. **Setting up the Project:** When using a DAW for sound creation, most of the time we are not working musically. There will not always be a set tempo and time signature for a piece of media. It would be much more useful to have our timeline ruler in seconds and not beats and bars. **(optional information) SMPTE Timecode (3 slides):** You might be asking why the timeline starts at one hour in your DAW? This is to do with synchronisation of video and audio on physical media. SMPTE timecode uses binary coded decimal and can count from: 00:00:00.00 to 23:59:59.29. It cannot handle negative values. If a tape machine was not synchronised correctly and ran earlier than the timecode, there would be no way to rewind if you started at 00:00:00.00, as it doesn't exist in the timecode. Another reason, is to allow for pre-roll and space to add in additional content at the start of the footage. Although, this is not an issue when working in a DAW, as SMPTE timecode is still used today, it makes sense to work using the specifications. **Activity 2: Placing Sound Effects: 30 mins:** Using the sound effects that you have collated, begin placing them in your project.		progress with collating samples. Teacher circulation demonstrate good examples of placement from learners – mini plenary. Self-assessed by learners and score logged in workbook.	

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	Your sound effects should be: • Accurately **synchronised** with the footage. • **Appropriate** for the action on screen. • Well **balanced.** Feedback: It is vital that you demonstrate how to successfully balance and sychronise samples in the DAW. **Progress check:** 1. Give **one** reason why you might want to use a non musical timeline when adding sound effects. 2. What are the steps to import a video file into your DAW? 3. How can you ensure accurate synchronisation of samples to your visual media? Feedback: 1. Easier to align/synchronise sound effects. 2. DAW SPECIFIC ANSWER. 3. Zooming in to get into milliseconds of accuracy. **Lesson recap:** **Collate** sound effects from online effects libraries. **Place** sound effects so that they are synchronised with the extract. **Import** a video file to a DAW project. **Collate** appropriate sound effects. **Accurately** synchronise sound effects with the extract. **Home study:** Watch a scene from a movie, TV show or watch a trailer or advert.			

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	Identify any sounds that you think were created using: a. Physical Props (what props do you think were used?) b. Effects library samples. Learners can use YouTube to find scenes. **Stretch and Challenge:** How do you think the Foley was recorded? **End of Lesson.**			
8	**Starter Activity: 5 mins:** The last two lessons have focused on using effects library samples to create the sound effects for a short animation. Talk to the person next to you and discuss: a. What the benefits were of using this method. b. What challenges you faced. **What you will learn:** You must be able to: • **Define** digital sample manipulation. • **Describe** the advantages and disadvantages of using effects library samples. • **Identify** ways in which samples can be manipulated. You may also be able to: • **Manipulate** effects library samples to better suit your animation. **Activity 1: Effects libraries: 6 mins:** Now that you have used effects libraries to create a short project, what do you think are the advantages and disadvantages of using this method of sound creation?	Computer, DAW, Heapdhones.	Class discussion. Direct questioning. Learners sharing list,	**4.1.2** **4.1.3**

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	Feedback: Advantages: ● Relatively low cost or free. ● Professionally recorded sound effects. ● Include a range of types and methods of sound creation. ● Easy to use. ● Fast to implement. Disadvantages: ● Can be expensive (subscription services). ● Unlikely to be exactly synchronised to your project. ● Sound effect you are looking for may not exist. ● Depending on the quality of the library, it can take a while to find the correct sound. **Digital Sample Manipulation (3 slides):** What do these three words mean: digital, sample, manipulation? Digital: discrete signal, represented as binary (0s and 1s). Sample: a piece of recorded audio. Manipulation: to control or change something. Reflective question: What is digital sample manipulation? Feedback: This is when you control a sample in different ways to change how it originally sounded. This could include basic control using a sampler to: ● Loop: repeat a sample until they key is released. ● Truncate/Trim: change the length of the sample. ● Pitch Map: speed up or slow down the sample to change the pitch. **Loop, Truncate/Trim & Pitch Map:**		feedback from PPT. Learners ability to apply manipulation in context.	

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	Demonstration recording on screen. **Digital Sample Manipulation (3 slides):** **Reflective question:** How else could you manipulate a sample? Feedback: You could use: ● Audio effects plugins. ● Time stretch. ● Transpose. **Reflective question**: How could you use plugins to manipulate a sample? Feedback: ● Use a reverb to space the sample in a different space. ● Add distortion to change the tone of the sample. ● Use EQ filters to make the sample sound further away. ● Use EQ filters to make the sample sound as though it is coming from a small speaker or headphones. **EQ Example:** Two recordings: one with EQ and one without EQ. **EQ Demo:** Video recording of sample being manipulated. **Time stretch:** Time stretching can be really useful when working with effects library samples. Often the sample will not be synchronised with the action on screen. Subtle amounts of time stretch to make a sample slightly faster or slower can be really effective.		Self-assessed by learners.	

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	Time stretch example: Two recordings on screen on an aeroplane taking off overhead. The first demonstrates that the sound stops before the plane is out of sight. The second example shows that the sound is stretched until the plane is out of sight. **Time stretch demo:** Video recording showing how to stretch time. **Time stretch example:** Both examples used the same effects library sample of a plane taking off. However, the original sample was **too short.** Time stretching works really well in small amounts. **Activity 2: Sample Manipulation: 20 mins:** Using your effects library samples project, manipulate one sample. For example: ● Time stretch / Loop / Pitch map. ● Use a reverb to space the sample in a different space. ● Add distortion to change the tone of the sample. ● Use EQ filters to make the sample sound further away. ● Use EQ filters to make the sample sound as though it is coming from a small speaker or headphones. **Stretch and challenge:** Use sample manipulation in a different way in your project. **Activity 3: Explanation: 10 mins:** Create a slide/document that explains: ● How you used digital sample manipulation in your project.			

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	• The steps involved to manipulate the sample. • Screenshots demonstrating the process. **Progress check:** 1. Define digital sample manipulation. 2. Give one reason why you might need to time stretch an effects library sample. 3. How could you use reverb to make an effects library sample more realistic? 4. Give **one** advantage of using effects library samples. 5. Give **one** disadvantage of using effects library samples. Feedback: 1. Control a sample to change how it originally sounded. 2. To make it match the actions on screen. 3. Place the sound in the correct space e.g large or small room. 4. Relatively low cost or free /Professionally recorded sound effects / Include a range of types and methods of sound creation /Easy to use / Fast to implement. 5. Can be expensive (subscription services) / Unlikely to be exactly synchronised to your project / Sound effect you are looking for may not exist / Depending on the quality of the library it can take a while to find the correct sound. **Lesson recap:** **Define** digital sample manipulation. **Describe** the advantages and disadvantages of using effects library samples. **Identify** ways in which samples can be manipulated. **Manipulate** effects library samples to better suit your animation.			

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	Home study: Use the same extract that you analysed for last lesson's home study. How do you think sample manipulation could have been used in the extract (if you cannot identify any uses choose a different extract)? **End of Lesson.**			
9	**Starter: 5 mins:** View the clip provided by your teacher. a. What sound effects can you hear? b. Are there any sound effects that have been added to enhance or add impact to actions? One possible clip could be Neo vs Merovingian, The Matrix Reloaded by Flashback FM (may be available on YouTube). **What you will learn:** You must be able to: • **Define** spot effects. • **Create** spot effects using musical instruments. • **Create** spot effects using samples. You may also be able to: • **Use** effects plugins to manipulate spot effects. **Spot Effects:** Sounds which are generated to **enhance** particular moments in a form of media. This could be to add impact to an **action** on screen or add **emphasis** to text on screen. We can use musical instruments to create spot effects.	Computer, DAW, heapdhones, Activity 1 video	Direct questioning, class discussion. Learners ability to synchronise a musical instrument to	**4.1.1** **4.1.2** **4.1.3** **4.1.4**

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	Activity 1: Creating Spot effects: 12 mins: You will be given a shot video containing text. The director would like a big impact to sound every time some text appears on screen. It is your task to use musical instruments to add spot effects to the text. **Reflective question:** What instruments could we use? Feedback: ● Orchestral percussion: timpani. ● Acoustic/electric drums: kick / snare drum. ● Cymbals. ● Pitched instruments. **Activity 2: Creating Spot Effects (Continued): 12 mins:** Now add in another instrument to layer with your first. You should also use the syllables of the words to dictate your rhythm. **Stretch and challenge:** Add an effect to manipulate the sound of your instruments. **Activity 3: Creating More Spot Effects: 12 mins:** You will now create a slow motion 'whoosh' effect. You will be given an effects library sample to manipulate. The steps will be on the next slide: 1. Import the file 'Original Sample.wav' to a new empty audio track in your DAW. 2. Duplicate this file and reverse the first one. 3. Trim the start and end of the files to remove silence. 4. Add a long fade in to the first file and a long fade out to the second file. 5. Drag the files so that they are slightly overlapping. 6. Add a cross fade. 7. Add a HPF/LPF to remove some of the low and high end.		create a spot effect. Learners ability to follow instructions to create a whoosh effect. Self-assessed by learners and score	

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	8. Add a reverb c.2 seconds. **Stretch and challenge:** Layer a sub drop using a synthesiser to add to the effect. Feedback: example audio provided. **Progress check:** 1. Define spot effects. 2. What is the purpose of a spot effect? 3. Give one way in which a spot effect could be used in a form of media. 4. Describe one way in which you can create spot effects. Feedback: 1. Sounds which are generated to enhance particular moments in a form of media. 2. To add emphasis or impact to an action or moment, to add emphasis to text on screen. 3. Use musical instruments. 4. Use digital sample manipulation. **Lesson recap:** **Define** spot effects. **Create** spot effects using musical instruments. **Use** effects plugins to manipulate spot effects. **Home Study:** Find an example of a form of media that has used spot effects. 1. How have the spot effects been used? 2. How do they enhance of emphasise the action on screen? 3. How do you think the spot effects have been created?		logged in workbook.	

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	End of lesson.			
10	**Starter Activity: 5 mins:** Be silent for one minute. What sounds can you hear around you? Feedback: The sounds that you heard are known as ambient sounds. They are important in sound creation as they create the illusion of realism. **What you will learn:** You must be able to: • **Define** environmental sounds. • **Describe** the importance of environmental sounds in sound creation. • **Identify** environmental sounds that would be required in different scenarios. You may also be able to: • **Create** a successful balance of environmental sounds. **Environmental Sounds**: Environmental sounds are the background sounds of a place or space. **Reflective question:** What environmental sounds would you hear in the location below? Feedback: Rain, dripping of water, footsteps, people talking, car engines, car horns beeping, wind through the trees, distant music. Environmental sounds are the background sounds of a place or space. **Reflective question:** Why is it important to have environmental sounds? Feedback: They are important in sound creation as they create the illusion of realism. **Activity 1: Identifying Sounds: 12 mins:**	PPT, workbook, Computer, headphones.	Class discussion. List created together. Learners sharing ideas for each location. Learners ability to find, select and balance environmental sounds that	**4.1.2** **4.1.3** **4.1.4**

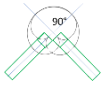
Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	You will be given four different locations. You must identify **all** of the environmental sounds that you would hear in each location. Use the table in your workbook to complete this task. <u>Feedback:</u> City Centre: ● Vehicle horns (cars, buses lorries). ● Vehicle engines (cars, buses lorries). ● Distant music playing. ● Murmur of people talking. ● Shouts. Forest: ● Gentle breeze through the trees. ● Rustling of leaves. ● Birds tweeting/singing. ● Animals rustling in undergrowth. ● Squirrels jumping in the trees. ● Distant cars on a nearby road. Beach: ● Gentle breeze through the palm trees. ● Sea crashing against the shore. ● Distant ships passing. ● Horns from distant ships. ● People playing in the sea (laughter, splashes). ● Distant plane passing overhead. ● Birds tweeting/singing. Factory: ● Whirr of machinery.		are appropriate to each location. Self-assessed by learners and score logged in workbook.	

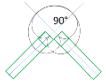
Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	• Metal tools clanking. • Beeping of machinery. • Air conditioning or extractor fans. • Distant cars from outside road. • Quiet indistinguishable conversations. **Activity 2: Choosing sounds: 15 mins:** Create the environmental sounds for each of the four locations you analysed in Activity 1. Your teacher will provide you with the relevant software. Possible software: BBC Sound Effects at sound-effects.bbcrewind.co.uk [accessed April 2023]. The following four slides utilise this software to demonstrate how to create the sounds required for the task in three steps. **Recording Environmental Sounds:** In order for environmental sounds to be useful, they must be long recordings. This is because our brains are able to notice patterns very easily. For example: A five-second recording of an environment looped, would become very repetitive. Our brains would very quickly recognise that this was not real. This could ruin the illusion of realism. **Reflective question:** What could be the potential problems with trying to record long environmental sounds? Feedback: • Sounds that are not desired for the recording are recorded. • These sounds cannot be removed. • Requires portable equipment. • Equipment that requires a power source. • Requires travel to specific locations.			

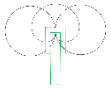
Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	• If it is windy day, this can cause the microphone to distort leaving the recording unusable. **Progress check:** 1. What are environmental sounds? 2. Why are environmental sounds important in sound creation? 3. Give **three** potential problems that could happen when recording environmental sounds. Feedback: 1. Environmental sounds are the background sounds of a place or space. 2. To give the illusion of realism/place footage in correct location. 3. Any **three** of the following: • Sounds that are not desired for the recording are recorded. • These sounds cannot be removed. • Requires portable equipment. • Equipment that requires a power source. • Requires travel to specific locations. • If windy, the microphone can become distorted and the recording unusable. **Lesson recap:** **Define** environmental sounds. **Describe** the importance of environmental sounds in sound creation. **Identify** environmental sounds that would be required in different scenarios. **Create** a successful balance of environmental sounds. **Home study:** Find an image of an environment of your choice.			

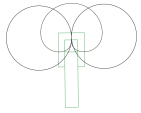
Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	Write in your workbook all of the background environmental sounds that you would hear in that location. Now use **the same software again** to create the environmental sounds for your location. Suggested: **sound-effects.bbcrewind.co.uk** **End of lesson.**			
11	**Starter activity: 5 mins:** Why are environmental sounds important? Feedback: They give the illusion of realism, and place footage in correct location. **What you will learn:** You must be able to: • **Research** how to record environmental sounds. • **Record** environmental sounds. • **Describe** how to set up XY stereo microphone technique. You may also be able to: • **Explain** XY stereo microphone technique. **Recording Environmental Sounds:** Environmental sounds are usually best recorded in **stereo**. This is because it will give the listener a sense of **physical space.** This means that you will use **two microphones** to capture the sound. The most appropriate stereo microphone technique would be **XY coincident pair**. **Activity 1: XY Stereo Recording: 15 mins:** Find out how to use the XY coincident stereo recording technique. 1. What polar patterns should you use?	Computer, DAW, headphones, 2x cardioid microphones (condenser/portable recorder) XLR, microphone stand, microphone t-bar, audio interface.	Class discussion. Feedback from PPT.	**4.1.2** **4.1.3**

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	2. What type of microphones would be best suited? 3. How do you set up the microphones? Resources could include: Common techniques for stereo miking, by Shure USA at www.shure.com [accessed April 2023] and Stereo recording techniques and set-ups by DPA microphones at www.dpamicrophones.com/mic-university [accessed April 2023]. These are included in the 'additional resources' section at the end of this lesson in the workbook. Feedback: This technique consists of two cardioid microphones. They are set at a right angle, with one microphone capturing the left and the other the right side. The cardioid polar patterns combine to create a stereo image. This technique is best used with condenser microphones. This is because they have a flatter frequency response. This means that the recording will sound true to real life as there will be less cutting and boosting of specific frequencies. They also have a wider frequency range, meaning that they can capture the full range of human hearing. **Activity 2: Recoding: 20 mins:** In groups, record two different types of environments. These could be: ● An **internal** space, such as a classroom. ● An **external** space, such as the playground. **Tips for success:** ● Record using a portable recorder. ● Record in stereo. ● Uses condenser microphones. ● Uses XY stereo recording technique. **Progress check:**		Learners ability to apply research to practical scenario. Self-assessed by learners and score logged in workbook.	

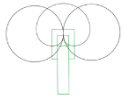
Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	1. What are environmental sounds? 2. Why would you record environmental sounds in stereo? 3. Draw an XY stereo microphone configuration. 4. Why are environmental sounds important in sound creation? Feedback: 1. Environmental sounds are the background sounds of a place or space. 2. Wider stereo image; places listener in the location. 3. XY:  4. To give the illusion of realism, and to place footage in correct location. **Lesson recap:** **Research** how to record environmental sounds **Record** environmental sounds. **Describe** how to set up XY stereo microphone technique. **Explain XY** stereo microphone technique. **Home study:** Another alternative stereo microphone to XY is AB (spaced pair). Find out the following information for AB (spaced pair): 1. What polar patterns should you use? 2. What type of microphones would be best suited? 3. How do you set up the microphones? Learners could look at: Stereo recording techniques and set-ups by DPA microphones at www.dpamicrophones.com/mic-university [accessed April 2023].			

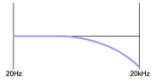
Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	End of lesson.			
12	**Starter activity: 5 mins:** Draw a diagram showing how you would set up an XY coincident pair for an environmental recording. Feedback:  **What you will learn:** You must be able to: • **Describe** how to set up the mid/side stereo microphone technique. • **Edit** a mid/side environmental recording using your DAW. You may also be able to: • **Explain** mid/side stereo microphone technique. **Activity 1: Mid/side Stereo Microphone: 15 mins:** Find out how to use the Mid/side stereo microphone technique works. 1. What polar patterns should you use? 2. What type of microphones would be best suited? 3. How do you set up the microphones? 4. Is any processing required in your DAW? Learners could look at: Mid/side Mic Recording Basics by Universal Audio at www.uaudio.com [accessed April 2023]. Feedback: This technique consists of one cardioid microphone and one figure of 8 microphone. The figure of 8 captures the sides, whilst the cardioid microphone	Computer, DAW, headphones.	Starter assessment. Feedback from PPT.	**4.1.2** **4.1.3**

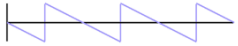
Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	captures the mid. To create a stereo image, processing is required in your DAW. Mid/side technique creates a very wide stereo image. Whilst capturing detail using the mid cardioid microphone.  **<u>Activity 2: Mid/Side Processing: 12 mins:</u>** You will be given an environmental recording that was captured using the mid/side microphone technique. You must: 1. **Duplicate** the **side** microphone track 2. **Pan** one track **hard left** 3. **Pan** the other track **hard right** 4. **Invert** the **polarity** on **one** of the side microphone tracks You will now hear a very wide stereo image. **Stretch and challenge:** Use EQ to remove the low rumble in the recording. It is important that you demonstrate how to complete this task in your DAW. **<u>Editing Functions Recap</u>** You will now need to **edit** the mid/side recording. You may wish to: • Use **gain** to make the recording **louder.** • Add **fade ins/outs** to the files. • Use **EQ** to remove **low rumble.** • Use narrow bell curve **EQ** to remove **resonant frequencies.** • Use **compression** to even out the **dynamic range.** Demo recording on screen.		Learners ability to successfully process mid/side recording. Learners ability to successfully edit the recording. Self-assessed by learners and score	

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	Activity 3: Editing: 10 mins: You now need to **edit** the mid/side recording. You may wish to: • Use **EQ** to remove **low rumble** • Use narrow bell curve **EQ** to remove **resonant frequencies** • Use **compression** to even out the **dynamic range** • Add **fade ins/outs** to the files • Use **gain** to make the recording **louder** It is important that you demonstrate how to complete this task in your DAW. **Progress Check:** 1. What are environmental sounds? 2. Why would you record environmental sounds in stereo? 3. Draw a mid/side stereo microphone configuration. 4. What editing would you need to apply to environmental recordings? Feedback: 1. Environmental sounds are the background sounds of a place or space. 2. Wider stereo image; places listener in the location. 3. Mid/side:  4. EQ to remove low rumble/narrow bell curve EQ to remove resonant frequencies/compression to even out the dynamic range/add fade ins/outs to the files/gain to make the recording louder. **Lesson recap:**		logged in workbook.	

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	Describe how to set up the mid/side stereo microphone technique. **Edit** a mid/side environmental recording using your DAW. **Explain** mid/side stereo microphone technique. **Home study:** Find out how you can minimise wind noise in environmental recordings. Make a list in your workbook. Learners could use: Shure tech tip: methods to minimise wind noise at shure.com [accessed April 2023]. **End of lesson.**			
13	**Starter activity: 5 mins:** Draw a diagram showing how you would set up a mid/side microphone technique for an environmental recording. **What you will learn:** You must be able to: • **Record** environmental sounds using mid/side stereo microphone technique. • **Edit** your environmental recordings for both XY and mid/side. • **Export** your recordings to a lossless audio format. You may also be able to: • **Upload** and publish your recordings. **Activity 1: Recording: 20 mins:** In groups, record two different types of environments. These could be: • An **internal** space, such as a classroom.	Computer, DAW, headphones, Cardioid microphone, figure of 8 microphone, microphone stands x 2, XLRs, audio interface.	Starter assessment. Learners ability to record using	**4.1.2** **4.1.3**

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	• An **external** space, such as the playground. **Tips for success:** • Record in stereo. • Use condenser microphones. • Use mid/side stereo recording technique. It is important that you demonstrate how to complete this task in your DAW. **<u>Activity 2: Editing: 15 mins:</u>** You now need to **edit** your recordings. You may wish to: • Use **EQ** to remove **low rumble.** • Use **narrow bell curve** EQ to remove **resonant frequencies.** • Use **compression** to even out the **dynamic range.** • Add **fade ins/outs** to the files. • Use **gain** to make the recording louder. • **Export** your files to a lossless audio format. It is important that you demonstrate how to complete this task in your DAW. **<u>Progress check:</u>** 1. Draw a mid/side stereo microphone configuration. 2. Describe how you would remove low rumble from a recording. 3. Why might you want to add fade ins/outs to your recordings. 4. Describe how you can add fades to audio files using your DAW. 5. Describe how you can export your recordings to a lossless audio format. <u>Feedback</u>: 1. Mid/side. 		mid/side technique. Learners ability to apply editing learned in previous lesson to a new scenario. Self-assessed by learners and score logged in workbook.	

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	2. Use HPF on an EQ and increase cut-off frequency. 3. So that recordings gradually start, making them less abrupt. 4. DAW SPECIFC ANSWER. 5. DAW SPECIFC ANSWER. **Lesson recap:** **Record** environmental sounds using mid/side stereo microphone technique. **Edit** your environmental recordings for both XY and mid/side. **Export** your recordings to a lossless audio format. **Upload** and publish your recordings. **Home study:** In our next lesson we will be looking at using synthesisers to make sound effects. Find out/revise about synthesisers (these are looked at in Content area 1 and 2). Make sure that you are confident with the following keywords: ● Amp envelope (ADSR). ● Filter. ● Oscillators. ● LFO. **End of lesson.**			
14	**Starter activity: 5 mins:** 1. Draw a sawtooth waveform. 2. What is this filter type? 	Computer, DAW, headphones.	Direct questioning.	**4.1.2** **4.1.3**

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	3. I am measured in Decibels (dB). What am I? 4. What is the difference between a synthesiser and a sampler? 5. Which two envelope stages are missing? ....., Decay, Sustain, ... 6. What does LFO mean? What parameter does it most commonly control? <u>Feedback</u>: 1. A sawtooth wave form:  2. Low pass. 3. Volume. 4. Sampler: Plays back pieces of audio; Synthesiser: Generates waveforms. 5. Attack, decay, sustain, release. 6. LFO: **Low Frequency Oscillator**; Commonly controls: **Cut-off**. **<u>What you will learn:</u>** You must be able to: ● **Define** what sound synthesis is. ● **State** what preset patches are. ● **Show** how synthesisers can be used to create sound effects. You may also be able to: ● **Create** appropriate sound effects for different scenarios using a synthesiser. **<u>Sound Synthesis:</u>** Sound synthesis is a method of sound creation that uses waveforms and controls within a synthesiser to create sound effects. This method is mostly used to create sounds that are not realistic. For example, a laser gun in a science fiction film. It could also be used to create more realistic ambient sounds such as wind or rain.		Learners sharing sound synthesis. Compare to example given. Learners sharing sound synthesis. Compare to example given. Self-assessed by learners	

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	Sound Synthesis: Patches: When creating a sound effect using a synthesiser you will generally want to start from an **initialised patch.** This is the synthesiser in its most basic state: • Usually with only **1 oscillator.** • No additional **routing** or **filtering** applied. **Reflective question:** What would you want to do this? Feedback: • Completely original sound. • Easier to understand what routing is affecting the sound. • More control over different parameters. **Sound Synthesis: Preset patches:** However, it may sometimes be quicker to choose a **preset patch.** Your DAW will have lots of preset sounds for their synthesisers. These will be **musical and non-musical** and will be created by professional musicians. For example, Logic contains sound effect and cinematic preset sounds for lots of its synthesisers. **Activity 1: Ambient Synthesis: 10 mins:** You will create the sound of **wind** using a synthesiser in your DAW for an arctic blizzard. Tips: • **Oscillator 1**: Noise. • **Filter**: LPF with a high resonance. • **Note**: Sustained. **Stretch and challenge:** Use an LFO on the filter to create movement. It is important that you demonstrate how to complete this task in your DAW.		and score logged in workbook.	

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	Activity 2: Sound Synthesis 15 mins: You will create the sound of **a laser gun** using a synthesiser in your DAW. Tips: • **Oscillator 1**: Sawtooth • **Filter**: off • **Note**: short • **Modulation:** Pitch modulated by ADSR • **ADSR- A:** 15ms **D:** 120ms **S:** 0ms **R:** 0ms **Stretch and challenge:** Use reverb to place the laser gun in a large hall. It is important that you demonstrate how to complete this task in your DAW. **Progress check:** 1. Define **sound synthesis.** 2. What is a preset patch? 3. Give **one** benefit of using a preset patch. 4. Give **one** reason why you would want to initialize a patch. 5. What type of sounds can synthesis be used to create? Feedback: 1. A method of sound creation that uses waveforms and controls within a synthesiser to create sound effects. 2. A sound that can be recalled and edited created by professional musicians. 3. High quality sound, takes less time, can be edited to suit project. 4. Completely original sound, easier to understand what routing is affecting the sound, more control over different parameters. 5. Ambient/Musical/Special Effects/Sound Effects.			

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	Lesson recap: **Define** what sound synthesis is **State** what preset patches are **Show** how synthesisers can be used to create sound effects **Create** appropriate sound effects for different scenarios using a synthesiser **Home study:** Spend 15 mins using a synthesiser to create a sound effect of your choice. Write down the steps you took to create the sound in your workbook. If learners are going to do this at home, they can use: Cardboard Online Synth at gsn-lib.org [accessed April 2023]. **End of lesson.**			
15	**Starter activity: 5 mins:** 1. What is a synthesiser patch? 2. I am measured in Hertz (Hz). What am I? 3. What does a High Pass filter do? 4. Why would you want to initialise a synthesiser patch when creating a sound effect? 5. What are the four stages of an amp envelope on a synthesiser? 6. How could you create movement of a filter in a synthesiser? Feedback: 1. A preset sound that can be recalled and edited. 2. Frequency 3. Allows frequencies higher than cutoff to pass. 4. To create an original sound. 5. Attack, Decay, Sustain, Release.	Computer, DAW, headphones.	Direct questioning.	**4.1.1** **4.1.2** **4.1.3** **4.1.4**

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	6. Using an LFO at a set rate/note value or automation of cutoff frequency. **What you will learn:** You must be able to: ● **Define** underscore and synth pad. ● **Identify** the different ways that underscore can be created. ● **Identify** how synthesisers can be used to create atmospheric underscore. ● **Identify** how to save patches in your DAW. You may also be able to: ● **Create** an atmospheric synth pad sound for underscore. ● **Use** effects to develop your synth pad sound. **Underscore**: This is any music that is added to the form of media, it can be original music created specifically for the media or it can be music that already exists in its own right, and that is repurposed. **Reflective question:** What is the difference between original and pre-existing music? Feedback: Definitions below. Key Terms: **Original Music** is music that is composed specifically for a form of media. **Pre-existing Music** is music that is not composed specifically for a form of media. **Activity 1: Comparison: 8 mins:** Create a comparison table of the advantages and disadvantages of original and pre-existing music in a form of media. Feedback: Original music: advantages:		Learners ability to compare the two methods.	

Lesson	**Learning activities** Implementation	**Resources** Support	**Assessment method** Impact	**Mapping** Teaching content
	• Will match actions/emotions on screen. • Composer will receive royalties for use of music. Original music disadvantages: • May require external composer. • Takes time and money. Pre-existing music: advantages: • Takes less time. • Consumers will be familiar with music. • Could attract target audience to engage with media. Pre-existing music: disadvantages: • Might not be possible to get a licence to use music you want. • Can be expensive to obtain licence. • May require editing to match actions/emotions. **Stretch and challenge:** Can you find any examples of forms of media that use original and pre-existing music? Feedback: Original**:** • Harry Potter: John Williams. • Interstellar: Hans Zimmer. • Big Band Theory Theme. • The Simpsons. • Blade Runner: Vangelis. • Tron Legacy: Daft Punk. • Billie Eilish: Come Out and Play for Apple's "Holiday - Share Your Gifts" 2018 Christmas campaign. Pre-existing: • Guardians of the Galaxy. • Shrek.		Feedback in PPT. Learners sharing sound synthesis. Compare to example given.	

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	• Baby Driver. • Friends Theme. • Back to the Future. • Jay Z: '03 Bonnie And Clyde for Airbnb Advert 2022. • A Little Love: Celeste John Lewis Christmas Advert 2020. **Synth Pads:** Synthesisers can create a range of types of sounds including both electronic artificial sounds, and also emulating realistic instruments. Synthesisers are commonly used in underscore to create atmosphere. This is done by creating what is known as a synth pad. It is called a pad because it 'pads out' (fills out) the space in the music. Key term: Synth Pad is a sustained chord or note used for atmosphere. **Activity 2: Synth Pad: 15 mins:** You will create a synth pad sound using the following settings: • **Oscillator settings:** Use any waveform combination. Try using coarse or fine tuning to create separation between the waveforms. • **Filter settings:** Use an LPF to remove harshness in the higher frequencies. • **Envelope settings:** You will want a long attack, decay & sustain and medium release to stop notes of different chords clashing. **Stretch and challenge:** Add a modulation effect (tremolo or phaser) to create movement to the sound and a reverb to extend the decay. ***It is important that you demonstrate how to complete this task in your DAW.** Feedback: • **Oscillator 1:** Sawtooth +12 semitones, -5 cents.		Learners sharing sound synthesis. Compare to example given.	

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	• **Oscillator 2:** Sawtooth 0 semitones, +15 cents. • **Filter:** c.500Hz LPF gradual slope. • **Envelope:** A: 1200ms, D: 10000ms, S: Full, R: 2800ms. • **Effect 1:** Stereo Tremolo: 50% depth, Rate: 1 Bar. • **Effect 2:** Stereo Reverb: 5 second decay. 100% Dry 50% Wet. **Activity 3: Synth Pad Sus Chords: 10 mins:** 1. Save your Synth Pad patch to your DAW. 2. Using your Synth Pad patch that you have just created, use the following suspended chord progression to create tension and release in **D Major.** There is a reminder of how to create sus chords on the activity. **Progress check:** 1. How do you save a **patch** in your DAW? 2. What is the purpose of a synth pad? 3. Would you need a long or short attack for a synth pad patch? 4. Give **one** advantage of using original music in a form of media. 5. Give **one** disadvantage of using pre-existing music in a form of media. Feedback: 1. DAW specific answer. 2. To fill out the space in the mix, to create atmosphere. 3. Long attack. 4. Own the copyright, fits the action and emotion of media. 5. Can be expensive to obtain licence, might not be possible to get a licence to use music you want, may have to edit recording to fit media. **Lesson recap:** **Define** underscore and synth pad.		Self-assessed by learners and score logged in workbook.	

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	Identify the different ways that underscore can be created. **Identify** how synthesisers can be used to create atmospheric underscore. **Identify** how to save patches in your DAW. **Create** an atmospheric synth pad sound for underscore. **Use** effects to develop your synth pad sound. **Home study:** Choose one of the following forms of media: Video games, Jingles, Movies, Podcasts, TV shows, Animations, Radio broadcasts, Theatre, Advertisements, Installations Find an example clip**.** Write down how you think sound synthesis could have been used in your example. **End of lesson.**			
16	**Starter activity: 5 mins:** 1. Define synth pad. 2. What does LFO stand for? 3. What type of filter is usually found on synthesisers? 4. What two things does EQ measure? 5. What are the two ways that you can create underscore? 6. What is underscore? Feedback: 1. A sustained chord or note used for atmosphere. 2. Low Frequency Oscillator. 3. Low Pass Filter. 4. Frequency (Hertz/Hz), Volume (Decibels/dB). 5. Original music, pre-existing music. 6. Any music that is included in the form of media.	Computer, DAW, headphones.	Direct questioning.	**4.1.2** **4.1.3**

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	What you will learn: You must be able to: • **Identify** how synthesisers can be used for non-musical purposes. • **Create** atmosphere using white noise and EQ. • **Create** a sub drop impact using a sine wave. • **Create** an alarm/siren using a square wave. You may also be able to: • **Use** automation and effects to develop your sound synthesis. **Activity 1: Atmosphere: 12 mins:** 1. Open a synthesiser in a new project. 2. Turn on **one** oscillator generating **white noise** 3. Create a held singular **C3** note lasting **8 bars** 4. Add a parametric **EQ** and add a **LPF c.12kHz** 5. Add 4 bell curves with narrow **Qs** and **high gain** (see below) ***It is important that you demonstrate how to complete this task in your DAW.** **Stretch and challenge:** Automate the frequency of the bell curves to create movement. Add a long reverb to extend the decay. Feedback: Audio examples provided on slide. **Activity 2: Sub drop: 12 mins:** 1. Open a synthesiser in a new project. 2. Turn on **one oscillator** generating a **sine wave.** 3. Create a held singular **C2 note** lasting **1 bar.** 4. Modulate the **pitch** via an **LFO.**		Learners sharing sound synthesis. Compare to example given.	

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	5. Set the **range** of the modulation to a **negative value** so that it will go down in pitch. 6. Set the **LFO rate** to **0.10Hz.** *It is important that you demonstrate how to complete this task in your DAW. **Stretch & Challenge:** Experiment with adding subtle overdrive to add harmonics so that the bass can be heard on a smaller speaker. **Sub Drop**: A sub drop is an example of a musical or non-musical use of sound synthesis. This could be used in underscore to create a transition in the music or this could be used as a spot effect to add emphasis to an action or moment in the visual media. **Activity 3: Alarm and Siren: 12 mins:** 1. Open a synthesiser in a new project. 2. Turn on **one oscillator** generating a **square wave** 3. Use coarse tuning to pitch up the waveform **+24 semitones** 4. Create a held singular **D3 note** lasting **2 bars** 5. Modulate the **pitch** via an **LFO** 6. Set the **LFO rate** to **3.35Hz** 1. Increase the depth of the modulation until it creates an alarm / siren *It is important that you demonstrate how to complete this task in your DAW. **Stretch and Challenge:** Use volume and pan automation to make the siren sound as though it is moving across the screen from left to right. **Progress check:** 1. State **three** ways in which you could use a synthesiser to create a sound effect.		Learners sharing sound synthesis. Compare to example given.	

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	2. What does ADSR do? 3. What is an LFO? 4. Describe how you would make a sound effect move across the screen. Feedback: 1. Sub drop, Siren, Alarm, Atmosphere. 2. Controls how a note is played – Attack, Decay, Sustain & Release. 3. Low Frequency Oscillator. 4. Using panning automation. **Lesson recap:** **Identify** how synthesisers can be used for non-musical purpose **Create** atmosphere using white noise and EQ **Create** a sub drop impact using a sine wave **Create** an alarm / siren using a square wave **Use** automation and effects to develop your sound synthesis **Home study:** In our next lesson we will be looking at **underscore.** Look at our previous notes/lesson where we looked at how underscore could be created. Find an example of a form of media that uses: • Pre-existing music. • Original music. **End of lesson.**		Self-assessed by learners and score logged in workbook.	

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
17	**Starter activity: 5mins:** 1. What are the two ways that you can create underscore? 2. Define Foley. 3. Give one way you could use digital sample manipulation. 4. Give one advantage of using effects library samples. 5. What is an environmental sound? 6. What is underscore? Feedback: 1. Original music, and pre-existing music. 2. Sounds performed to match actions on screen using physical props. 3. Loop, Truncate/Trim, Pitch Map, Time stretch, EQ. 4. Free, quick, easy to use. 5. Background ambient sounds from a particular place. 6. Any music that is included in the form of media. **Previous lesson**: For home study you were asked to revisit information learned about how underscore is created. You were also asked to find media examples that use pre-existing and original music. Share with the person next to you what you found out. Underscore: Recap: This is any music that is added to the form of media, it can be original music created specifically for the media, or it can be music that already exists in its own right and is repurposed. Key terms: **Original Music** is music that is composed specifically for a form of media. **Pre-existing Music** is music that is not composed specifically for a form of media.	Computer, DAW, headphones.	Direct questioning. Learners ability to use effects library royalty free music to meet brief.	**4.1.1** **4.1.2** **4.1.3** **4.1.4**

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	Comparison: Original music: advantages: ● Will match actions/emotions on screen. ● Composer will receive royalties for use of music. Original music disadvantages: ● May require external composer. ● Takes time and money. Pre-existing music: advantages: ● Takes less time. ● Consumers will be familiar with music. ● Could attract target audience to engage with media. Pre-existing music: disadvantages: ● Might not be possible to get a licence to use music you want. ● Can be expensive to obtain licence. ● May require editing to match actions/emotions. **What you will learn:** You must be able to: • **Define** underscore. • **Create** underscore using pre-existing music. • **Create** original underscore using MIDI and loops. You may also be able to: • **Create** original underscore using live recording. **Scenario:** A local artist is putting on an **installation** at a local art gallery and they have asked you to create **background music** for the installation. They have asked for the following:			

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	• **Relaxing** music to be played. • The music should **not** contain lyrics. • Ambient **environmental** sounds to be included in the music. • They want your example work to be between **30 seconds** to **1 minute.** **<u>Activity 1: Pre-existing music: 10 mins:</u>** Find pre-existing music that fits the artist's brief. You should also find environmental sounds that can be played along with the music. Learners could use **freesound.org.** **<u>Activity 2: Original Music: 25 mins:</u>** Create an original piece of music that fits the artist's brief. You can: • **Create** original underscore using MIDI and loops • **Create** original underscore using live recording You can use online effects libraries to download environmental sounds. **<u>Progress check:</u>** Discuss with the person next to you: 1. What were the advantages and disadvantages of each method? 2. Which method did you think was more successful and why? **<u>Lesson recap:</u>** **Define** underscore. **Create** underscore using pre-existing music. **Create** original underscore using MIDI and loops. **Create** original underscore using live recording.		Learners ability to use skills learned in prior learning to new scenario. Self-assessed by learners and score logged in workbook.	

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	Home study: In our next lesson we will be looking at voice-over. 1. What is voice-over? 2. Find a **movie trailer** that uses **voice-over**. Describe how **voice-over** has been used in the movie trailer. **End of lesson**.			
18	**Starter activity: 7 mins:** For your home study you were asked to: 1. Define voice-over. 2. Find a **movie trailer** that uses **voice-over and d**escribe how **voice-over** has been used in the movie trailer. We will now watch a couple of examples that you found. Make a note of how voice-over is being used. **What you will learn:** You must be able to: • **Define** voice-over. • **Describe** how voice-over can be used in different forms of media. • **Identify** how to record a voice-over. You may also be able to: • **Evaluate** the suitability of microphone's frequency response for voice-over.	Computer, headphones.	Class discussion. Direct questioning.	**4.1.1** **4.1.2** **4.1.3**

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	Voice-over: Voice-overs are used in a range of forms of media. They are most commonly used in **advertisements** and **film trailers.** A voice-over is like a narration. If you can hear a voice, but it is not from a visible character or person, then it will be a voice-over. **Reflective question:** how are voiceovers used in adverts and film trailers? **Activity 1: Advert Voice-over: 5mins:** Watch the advert provided by your teacher. How has voice-over been used in this advert? Suggested advert: **Oral-B UK.** **Oral-B Electric Toothbrush 2018.** **Activity 2: Film Trailer Voice-over 5mins** Watch the trailer provided by your teacher. How has voice-over been used in this trailer? **Suggested trailer:** **The Mask** **The Mask (1994) Official Trailer - Jim Carrey Movie.** **Recording Voice-over:** Although recording the voice is a relatively simple task, there are a number of considerations to ensure a successful recording. **Considerations:** ● Background noise level. ● Microphone choice: ● Microphone type.		Direct questioning. Direct questioning. Direct questioning.	

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	● Frequency response. ● Polar Pattern. ● Proximity to microphone. ● Plosives. ● Reflectiveness of the room. **<u>Background Noise Level:</u>** The voice is a relatively quiet sound. If you are recording in loud environment, you will run into problems when trying to process the voice-over in your DAW. It is likely that the background noise could be too loud at certain points. The signal to noise ratio will only get worse once compression is added. **Reflective question:** How can you minimise background noise when recording? <u>Feedback</u>: Simple solutions: ● Close windows. ● Turn off air conditioning/fans. ● Turn off any unnecessary electrical equipment. ● Use the null of a polar pattern to reject noise. Complex solutions: ● Soundproof room (room within a room). ● Isolation booth. **<u>Activity 3: Microphones :15 mins</u>** Find out the following information: 1. What are frequency response curves (FRC) of microphones? 2. What is the difference between the FRC of dynamic and condenser microphones? 3. What polar pattern is best for voice recordings?		Direct questioning. Direct questioning.	

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	4. What happens when you get closer to a cardioid polar pattern? 5. What are plosives and how can they be avoided? Feedback: 1. Where a microphone is more or less sensitive to sound across the frequency range. 2. Dynamic: more boosts and cuts in curve so will change sound of the recording more. Condenser: flatter curve so will change the sound of the recording less. 3. Cardioid. 4. Proximity effect: more low end frequencies as you get closer. 5. Overloading microphone with a 'P' or 'B' word causing distortion. To reduce: use a pop filter or have the microphone of axis to the side of the mouth. **Microphone: Frequency Response**: Choosing a microphone that sounds right on the voice-over artists voice will have a big impact on your final sound. All microphones have different frequency responses. This means that they will cut or boost different frequencies. You can think of this as a built in EQ. **Activity 4: Frequency Response: 6 mins:** In pairs, look at the graph (on the following slide) showing the frequency response of a microphone. Do you think this microphone would be suitable for an epic film trailer voice-over? **Feedback:** Unsuitable: ● HPF: Removing too much low end and low mid frequencies. Suitable: ● 1-2.5kHz Boost: where most of the human voice sits.			

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	• 12kHz High Shelf Boost: brightens the voice, making it clearer. **<u>Activity 5: Evaluate Voice-over: 8 mins:</u>** Below is a voice-over recording for a movie trailer. **Evaluate** the recording quality of the voice. What problems can you identify? How would you fix them? <u>Feedback:</u> • **Large amount of background noise throughout**: Shut windows/record in quieter room. • **Plosives present:** Add pop filter or place microphone off axis to mouth, or use HPF to remove rumble. • **Microphone handling sounds between phrases**; Use audio editing to silence or turn down gaps between speech, or use noise gate. • **Large jumps in volume**: Use compression to even out the dynamic range. **<u>Progress check:</u>** 1. What is a voice-over? 2. Which of the following microphone types has a flatter frequency response curve: dynamic or condenser? 3. How can you reduce plosives? 4. What is the proximity effect and how can it be used when recording voice-over? 5. What happens if you set the gain too high on your audio interface? <u>Feedback</u>: 1. narration: you can hear a voice but they are not a visible character or person. 2. Condenser.		Self-assessed by learners and score logged in workbook.	

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	3. Use a pop filter or have the microphone of axis to the side of the mouth. 4. The closer you are to a cardioid (or figure of 8) polar pattern, the more low end there will be in the recording. 5. Your audio will digitally clip, causing distortion. This is a destructive process. **Lesson recap:** **Define** voice-over. **Describe** how voice-over can be used in different forms of media. **Identify** how to record a voice-over. **Evaluate** the suitability of microphone's frequency response for voice-over. **Home study:** Complete **one** of the following activities: **Activity 1: Record a voice-over** • Using a mobile device/laptop/computer, record a voice-over saying: "This is my first voice-over recording. I am using a *insert device* to record. I have tried to minimise background noise by recording in a quiet space" **Activity 2: Record a voice-over** • Watch this video on **YouTube: Voice-over Tips: 9 Ways to Record Better Sounding Voice-over | Voice Acting 101 [accessed April 2023].** • Make notes on the tips given in your workbook. **End of lesson.**			
19	**Starter Activity: 5 mins:** Explain to the person next to you how you would record a voice-over.	Cardioid microphone, pop filter,	Class discussion.	**4.1.1** **4.1.2** **4.1.3**

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	<u>What you will learn:</u> You must be able to: • **Record** a voice-over for a movie trailer. • **Edit** a voice-over recording. • **Process** a voice-over recording using plugins. You may also be able to: • **Record** a high-quality voice using correct techniques. **<u>Activity 1: Recording a voice-over: 20 mins:</u>** You must record a high quality voice-over using the script below: *[Read in an epic voice]* In a world where good and evil collide. One person, will embark on a journey. They thought they had it all figured out… until now! A hero will rise, and an empire will fall. Coming this fall, to a theatre near you… Cliché Movie Voice-over! *[Read really fast]* In theatres October 25th. **Tips for success:** ● Use a cardioid polar pattern. ● Close the windows/doors to reduce background noise. ● Use the null to reject background noise. ● Use a pop filter. ● Set the gain at an appropriate level (so that it does not distort). ● Use a condenser microphone (if available). **<u>Activity 3: Edit and process voice-over: 15 mins:</u>** You must now edit and process your voice over using:	microphone stand, XLR cable, audio interface, computer, DAW, headphones.	Learners applying knowledge of recording V/O to practical scenario. Learners applying knowledge of editing from prior learning to new scenario.	**4.1.4**

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	• **Audio editing:** to move unwanted sounds/add fades • **Noise gating:** to turn down level between speech. • **Compression:** to even out the dynamic range. • **EQ:** to remove low rumble/resonant frequencies and boost clarity. **Stretch and challenge:** Test listening to your voice-over on different monitoring equipment to check that it can be heard clearly. **Progress check:** 1. How can you reduce plosives during editing? 2. What does a noise gate do? 3. Why would you need to use compression on a voice-over? 4. How can you use proximity effect to enhance the sound of a voice-over? Feedback: 1. Use HPF on an EQ just on that phrase/turn down the level of the plosive using automation or region gain. 2. Turns down the volume of an audio signal when the level of the audio falls below a set volume. 3. To even out the dynamic range. 4. The closer you are to a cardioid (or figure of 8) polar pattern, the more low end there will be in the recording. **Lesson recap:** **Record** a voice-over for a movie trailer. **Edit** a voice-over recording. **Process** a voice-over recording using plugins. **Record** a high-quality voice using correct techniques. **Home study:**		Self-assessed by learners and score logged in workbook.	

Lesson	Learning activities Implementation	Resources Support	Assessment method Impact	Mapping Teaching content
	Complete the activity that you did not do for our last home study: **Activity 1: Record a voice-over** • Using a mobile device/laptop/computer, record a voice-over saying: "This is my first voice-over recording. I am using a *insert device* to record. I have tried to minimise background noise by recording in a quiet space" **Activity 2: Record a voice-over** • Watch this video **Voice-over Tips: 9 Ways to Record Better Sounding Voice-over | Voice Acting 101** • Make notes on the tips given. **End of lesson.**			

20	**Starter activity: 5 mins** 1. What does dynamic processing mean? 2. What does a compressor do? Feedback: 1. Processing in a mix to control the dynamic range (loudness or quietness) of audio signals. 2. Reduces the dynamic range. **What you will learn:** You must be able to: • **Define** side chain compression. • **Use** side chain compression to balance a voice-over. • **Create** a short underscore using loops. You may also be able to: • **Create** original ideas using MIDI. **Voice-over Balance:** Listen to this example of our voice-over with underscore music playing. We want the voice-over to stand out above the underscore when speaking but also allow the underscore to be louder when they are not speaking. We can use side chain compression to achieve this. **Side-chain Compression:** Side chain compression is a mixing technique where you tell the compressor to listen to a different input. Place a compressor on our underscore. Tell the compressor side chain to listen to the voice-over. Adjust the threshold, ratio, attack and release. Now the compressor will only turn down the underscore when the voice-over is speaking. **Activity 1: Side chain compression: 10 mins:** Import the audio file **underscore.mp3** to your edited voice-over project.	DAW, headphones.	Direct questioning.	**4.1.1** **4.1.2** **4.1.3** **4.1.4**

	1. Place a **compressor** on the **underscore.** 2. Tell the **compressor** side chain to **listen** to the **voice-over.** 3. Adjust the **threshold**, **ratio**, **attack** and **release.** Suggested settings: • High ratio. • Fast attack & release. • No makeup gain. • Threshold: adjust until you can hear the effect. **Movie Trailer Underscore** The underscore used in the example was created using a combination of **DAW loops** and original MIDI. Using DAW loops is a quick way to create underscore for a range of types of media. In the next activity, you will create your own movie trailer underscore for your voice-over. **Activity 2: Movie Trailer Underscore: 20 mins:** Use your DAW loops to create a **short underscore** that will fit the **length** of your recorded voice-over. Tips for success: • Choose loops that are in a similar style. • Decide on a BPM (tempo). • Decide on a key. • Use loops that are in the same key. **Stretch and challenge:** Create one of your own original parts using MIDI. This could be live or step input. Use side chain compression on your underscore to balance your voice-over. **Progress check:** 1. What is side chain compression? 2. How can you use side chain compression with voice-over? 3. Define underscore. 4. Give **one** advantage of using DAW MIDI loops to create underscore.		Learners following instructions and demonstration to balance V/O. Learners creating appropriate underscore for the given scenario.	

	5. Give **one** disadvantage of using DAW MIDI loops to create underscore. Feedback: 1. Side chain compression is a mixing technique where you tell the compressor to listen to a different input. 2. This can turn down the volume of the underscore only when the voice-over is speaking, to create a better balance. 3. Any music added to a form of media. 4. Quick and easy way to create underscore. 5. Not original/everyone has access to the loops. **Lesson recap:** **Define** side chain compression. **Use** side chain compression to balance a voice-over. **Create** a short underscore using loops. **Create** original ideas using MIDI. **Home study:** In our next lesson we will be looking at dialogue. 1. What is overdubbing? 2. How is dialogue different to voice-over? 3. Why might you choose to overdub dialogue in a form of media? **End of lesson.**		Self-assessed by learners and score logged in workbook.	
21	**Starter activity: 5 mins:** In our last lesson we looked at **voice-over.** 1. What did this mean? 2. How do you think dialogue is different to voice-over? Feedback: 1. Non-diegetic spoken word (for example, the commentary of a narrator off screen).	DAW, heapdhones, computer, camera, cardioid microphone, pop filter, microphone	Direct questioning, class discussion.	**4.1.1** **4.1.2** **4.1.3** **4.1.4**

	2. Dialogue is diegetic spoken word (for example, the words spoken by a character on screen). One is linked to the characters on screen, and the other is detached from this. **What you will learn:** You must be able to: • **Define** dialogue and overdubbing. • **Describe** how dialogue can be used in different forms of media. • **Note** how to record dialogue. You may also be able to: • **Record** high-quality dialogue for a piece of footage using a script. **Dialogue:** Dialogue includes any speech in a form of media that comes from a character or person on screen. Dialogue can be recorded on location during filming or overdubbed post filming. **Key term:** **Overdubbing** is recording a track over a previously recorded track. **Reflective question:** Why might you need to overdub dialogue? Feedback: ● The dialogue captured on location has too much background noise. ● You are using a different voice actor from the one in the footage. ● You are overdubbing or 'dubbing' the dialogue in different languages. **Reflective question:** Can you think of any difficulties you might encounter when overdubbing dialogue? Feedback: Matching the timings with the visual movement of characters' mouths may be difficult. **Activity 1: Advert Dialogue: 5 mins:** Watch the advert provided by your teacher. How has dialogue been used in this advert?	stand, XLR cable, audio interface.	Learners identifying difference between dialogue and voice-over.	

	Select an advert with mismatched dubbing. Suggested advert to use: **Calgon - Introducing Calgon 3 in 1 - Washing Machine Protection Against Limescale, Residue & Odour!** **Stretch and challenge:** How has voice-over been used in this advert? Feedback: Allow for relevant feedback, but if using the Calgon advert above: There is dialogue used when character on screen is talking to camera. However, this has been overdubbed. The lip-syncing and the footage are not matched. Learners may identify that this is because the original footage is either saying something different or is in a different language. The purpose of this dialogue is to give information about the product. **Activity 2: Video Game Dialogue: 5 mins:** Watch the scene. How has dialogue been used in this scene? Provide a video game scene clip where the characters are less realistic and so the voice-over does not need to match so directly. Suggested scene: **Zelda: Breath of The Wild**, **King Rhoam Bosphoramus Hyrule – Cutscene.** Feedback: Learners may identify how this type of dialogue is less reliant on lip syncing as it is not real life. The purpose of this dialogue is to set the scene/tell a story. **Activity 3: Research: 8 mins:** Find out the following: 1. What are diegetic sounds? 2. What are non-diegetic sounds? 3. Is voice-over diegetic or non-diegetic? 4. Is dialogue diegetic or non-diegetic? Feedback: 1. Diegetic sound is sound that is included in the action on screen. 2. Non-diegetic sound is sound that is not included in the action on screen. 3. Voice-over is non-diegetic. 4. Dialogue is diegetic.			

	<u>Recording Dialogue:</u> One problem with recording dialogue is that you will not be in the **same location** as the footage is from. This means that the recordings can often sound **out of place** as the acoustic space is completely different. You will also most likely not want to get too close to a microphone, otherwise the proximity effect will be too much and not match other dialogue. **Reflective question:** How could we solve the issue of recording in a different location? <u>Feedback</u>: Record 'room tone' on location (a room tone recording is a long recording of the natural sound of a space. This recording can be used to fill in silences between dialogue overdubbing. **<u>Activity 4: Recording Dialogue: 25 mins:</u>** Record someone speaking to **camera,** reading a script about overdubbing dialogue. You must capture **room tone** of the space that you film in. Someone else will then **overdub** the **dialogue** using a microphone and reading the script. Your dialogue should be perfectly **synchronised** to the footage. You should use your **room tone** in your final overdubbed dialogue. Tips for success: ● Use a cardioid polar pattern. ● Close the windows/doors to reduce background noise. ● Use the null to reject background noise. ● Set the gain at an appropriate level (so that it does not distort). ● Use room tone to fill to match the acoustic space. ● Do not get too close to the microphone to avoid proximity effect. **Script:** "Hello, the voice you are hearing right now was actually overdubbed in post-production. This is a type of sound creation that is called dialogue. Overdubbing dialogue is used when the original on location recording was not successful or if the voice actor is different from the screen actor. This is most common in adverts. If you are going to overdub dialogue it is important that you capture room tone on location to be used in your dialogue recording."		Learners identifying how dialogue is used in different form of media.	

	Progress check: 1. How is dialogue different from voice-over? 2. Why is it important to record room tone when filming on location? 3. Give **one** reason why you would overdub dialogue. 4. Give **one** example of a diegetic sound. 5. Give **one** example of a non-diegetic sound. Feedback: 1. Dialogue is any speech that happens on screen. 2. In case dialogue needs to be overdubbed, to match the acoustic space. 3. Error in recording, different voice actor, different language. 4. Diegetic sound: character listening to the radio in a scene/ dialogue. 5. Non-diegetic sound: underscore/voice-over. **Lesson recap:** **Define** dialogue and overdubbing. **Describe** how dialogue can be used in different forms of media. **Note** how to record dialogue. **Record** high-quality dialogue for using a script. **Home study:** Answer the following questions about sound creation: 1. You have been asked to overdub dialogue for a TV show. The voice actor is coming to your studio to record. List three pieces of equipment that you would need. **[3]** 2. State why you would want to include room tone from the filming location when overdubbing dialogue? **[1]** 3. You have received a piece of recorded voice-over for an advert. The recording contains plosives. Describe how you would remove the plosives using DAW processing only. **[2]**		Self-assessed by learners and score logged in workbook.	

	End of lesson.			
22	**<u>Starter activity: 5 mins:</u>** For home study, you answered the following about sound creation: 1. You have been asked to overdub dialogue for a TV show. The voice actor is coming to your studio to record. List three pieces of equipment that you would need. **[3]** 2. State why you would want to include room tone from the filming location when overdubbing dialogue? **[1]** 3. You have received a piece of recorded voice over for an advert. The recording contains plosives. Describe how you would remove the plosives using DAW processing only. **[2]** <u>Feedback:</u> 1. Microphone, dynamic, condenser, audio interface, XLR cable, pop filter or shield, headphones, microphone stand, music stand, script, monitor screen, ipad, chair/seat/stool. 2. To match the acoustic space of the filming location. 3. Use EQ and a HPF to remove the low end **only on the plosive section.** Cut out audio/use automation. **<u>What you will learn:</u>** You must be able to: • **Plan** the sounds that you will need and methods that you will use. • **Collate** sound effects from effects libraries. • **Create** sound effects using a variety of methods. • **Identify** how to use tempo changes and markers. You may also be able to: • **Use** digital sample manipulation to enhance your sound effects. Sound Creation Project: Choose a short 30-second form of media that you will create the sound for.	DAW, heapdhones, computer, cardioid microphone, pop filter, microphone stand, XLR cable, audio interface.	Feedback from home study in PPT.	**4.1.1** **4.1.2** **4.1.3** **4.1.4**

	This could come from any of the forms of media: Video games, Movies, TV shows, Radio broadcasts, Advertisements, Jingles, Podcasts, Animations, Theatre, Installations. **Activity 1: Sound creation Plan: 12 mins:** 1. Choose a form of media from the options supplied by your teacher. 2. Plan the sound effects you will need, and the types and methods of sound creation you will use. The table should help you to plan. **Setting Up Your Project: Tempo:** ● You may wish to create a tempo map of your project. ● This will be useful when adding and creating underscore. To do this you can use a tap tempo website such as **taptempo.io.** You can watch your form of media and **tap along at a suitable tempo.** Then you can set your **project to this tempo.** However, if you feel that the **pace of the clip changes**, you can always add in a tempo change to suit. **Creating Tempo Changes** In your DAW, you will be able to manually adjust the tempo. This means that you can have multiple different tempos in one project. This can be useful when working with media, as it can allow you to follow the pace of the scene. **Setting Up Your Project: Markers:** ● You may wish to add **markers** into your project. ● These can be useful to help you **navigate** around when creating sound effects. For example, a marker could indicate: ● Where you want **specific spot effects.** ● **Tempo changes.** ● Where you want the **underscore** to start. ● Where you want certain **sound effects** or **voice overs.**		Learners applying knowledge learned in content area to a brief.	

	Creating Markers: Markers are useful to map out in your project where you want certain important elements to happen. For example, a change in atmosphere or a specific sound effect that is crucial to the storyline. **Activity 2: Collate Sound Effects: 12 mins** You should now use **effects libraries** to collate sound effects that you plan to use. Online resources could include: • freesound.org. • sound-effects.bbcrewind.co.uk. • pixabay.com. **Activity 3: Creating Sound Effects: 25 mins** You should now start to create your own sound effects using any combination of the following methods: ● Physical Props. ● Environmental recordings. ● Voice-over/Dialogue. ● Sample manipulation. ● Sound synthesis. ● Underscore. **Progress check:** 1. Why might you need to use tempo changes in your project? 2. How could you use markers in your project? 3. Write down three things that you want to achieve in our next lesson. Feedback: 1. To match the pace and action of the extract. 2. To help you navigate around the project. 3. Three things that you want to achieve in our next lesson.		Self-assessment of progress.	

	Lesson recap: **Plan** the sounds that you will need and methods that you will use **Collate** sound effects from effects libraries **Create** sound effects using a variety of methods **Identify** how to use tempo changes and markers **Use** digital sample manipulation to enhance your sound effects **Home study:** Complete any of the following: • Continue to collate sound effects using online effects libraries. • Find or create your own physical props for Foley. • Record your own Foley using a mobile device/laptop. • Write a script for any dialogue / voice-over required. **End of lesson.**			
23	**Starter activity: 5 mins:** Watch the videos. Which example is more believable/convincing and why? Feedback: The version with two sounds working together to create one effect will be more convincing. This version has layered different aspects of the overall sounds using different methods. This allows for greater detail in the final result. **What you will learn:** You must be able to: • **Create** sound effects using a variety of methods. • **Note** how to use layering and automation. • **Create** a progress diary. You may also be able to: • **Use** automation creatively.	DAW, heapdhones, computer, cardioid microphone, pop filter, microphone stand, XLR cable, audio interface, separate paper or wordprocessor for making diary.	Sharing progress, targets.	**4.1.1** **4.1.2** **4.1.3** **4.1.4**

	<u>Layering Sound Effects:</u> One way of achieving convincing sound creation is to layer multiple sound effects. For example, you could: ● Record a piece of Foley ● Use sound synthesis. ● Use an effects library sample. And use these all together to create one sound effect. **Reflective question:** What are the benefits of layering sound effects? <u>Feedback</u>: Can use different methods to create different parts of the sound; adds more depth to the sound. **<u>Automation</u>**: Automation is a useful tool to match actions on screen. For example, panning automation to track a sound across the screen, volume automation to place a sound closer or further away, and effect parameter automation to control level of an effect (e.g. wetness of reverb). **<u>Activity 1: Creating Sound Effects: 25 mins:</u>** You should now continue to create your own sound effects using any combination of the following methods: • Physical props. • Environmental recordings. • Voice-over/ dialogue. • Sample manipulation. • Sound synthesis. • Underscore. **<u>Activity 2: Progress Diary: 20 mins:</u>** Create a progress diary document that explains **one** example of how you have used each of the following methods: • Physical props.		Learners applying knowledge learned in content area to a brief.	

	• Environmental recordings. • Voice-over/dialogue. • Sample manipulation. • Sound synthesis. • Effects library samples. • Underscore. You should include **screenshots** to evidence your work. **Progress check:** 1. Explain how filtering can be used on a synthesiser to shape the tone of a sound. **[2]** 2. You have created a synth pad sound using a software synthesiser in your DAW. You want the sound to gradually fade in. Using only the synthesiser controls, explain how you would achieve this sound. **[2]** 3. You have recorded a voice over for a podcast. When you listen back to the recording there is a lot of unwanted sound between the speaking. Explain how you would use dynamic processing to remove this unwanted sound. **[2]** Feedback: 1. LPF/HPF/Lower cut-off frequency to remove higher frequencies, and raise cut-off frequency to remove lower frequencies. 2. Use the Attack of ADSR/amp envelope/Increase to allow the notes to gradually reach highest amplitude. 3. Use noise gate to only allow the recording to be heard when it goes above a set threshold. **Lesson recap:** **Create** sound effects using a variety of methods. **Note** how to use layering and automation. **Create** a progress diary. **Use** automation creatively.		Learners demonstrating progress of project. Self-assessed by learners and score logged in workbook.	

	Home study: Complete any of the following: • Continue to collate sound effects using online effects libraries. • Find or create your own physical props for Foley. • Record your own Foley using a mobile device/laptop. • Write a script for any dialogue or voice-over required. **End of lesson.**			
24	**Starter activity: 8 mins:** We will watch a person's sound creation project in progress. Write down: • Two successful aspects of the project so far. • Two ways that they could improve the project. Give specific and details of what they can do to improve the project. **What you will learn:** You must be able to: • **Complete** your sound creation project • **Export** your project to a suitable format and render the audio to video • **Finish** your progress diary • **Evaluate** the strengths and weaknesses of your project You may also be able to: • **Explain** ways in which you could improve the final outcome **Activity 1: Finishing Your Project: 15 mins:** You will have 15 minutes to complete your sound creation project. Remember to try and include all of the following: ● Physical props. ● Environmental recordings. ● Voice-over/dialogue.	DAW, heapdhones, computer, cardioid microphone, pop filter, microphone stand, XLR cable, audio interface.	Peer evaluation of success of project. Learners applying knowledge learned in	**4.1.1** **4.1.2** **4.1.3** **4.1.4** **4.1.5**

	• Sample manipulation. • Sound synthesis. • Effects library samples. • Underscore. **<u>Activity 2: Progress Diary: 15 mins:</u>** You should explain **one** example of how you have used each of the following methods: • Physical props. • Environmental recordings. • Voice-over/dialogue. • Sample manipulation. • Sound synthesis. • Effects library samples. • Underscore. You should include **screenshots** to evidence your work. **<u>Activity 3: Export/Render</u>** You should render your sound creation audio to the video. You should render the video to either: • MP4 • MOV You should render the audio to either: • MP3 • WAV • AIFF **<u>Activity 4: Evaluation: 15 mins:</u>** You must now review and evaluate your sound creation project. You should describe both: • Strengths.		content area to a brief. Learners demonstratin g progress of project. Learners ability to export to correct formats.	

	• Weaknesses. Explain ways in which you could improve the final outcome. **<u>Progress check:</u>** Listen to another person's final sound creation project. In their workbook write: • Two strengths of their final outcome. • Two ways that they could improve their final outcome. **<u>Lesson recap:</u>** **Complete** your sound creation project. **Export** your project to a suitable format and render the audio to video. **Finish** your progress diary. **Evaluate** the strengths and weaknesses of your project. **<u>Home study:</u>** Use your notes from this content area to prepare for a knowledge check. This will cover: • Forms of media. • Types of sound creation. • Methods of sound creation. **End of lesson.**		Learners ability to review project and identify ways to improve. Peer assessment.	