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| **Date:** Week 2 | **No. Of Pupils:** 30 aprox. | **No. Teachers:** 2 | **Duration:** 60 mins |

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| **Role of Teaching Assistants:**  To provide support to student’s who were absent or struggling. To participate in group performances and discussion. Advanced peers should also be used to assist other peers. |
| **Prior Knowledge of Pupils:**  An understanding of how to operate a Raspberry Pi and write basic coding using the application Sonic Pi.  Commands: *Play, Sleep, Run* |
| **Contents: Lesson 2 of 11(12)**  After exploring Sonic Pi in the previous week, students will begin to use the terms: *loop do,* and *use\_synth*. Students will continue with last week’s piece or create their own. |
| **Vocabulary/keywords**  Commands: *Loop do, end, use\_synth:* |
| **Anticipated problems:**  Issues with Raspberry Pi (check all Pi’s before use)  Possibility of absence students (peers/teaching assistants to assist with catch up) |

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| **Learning Objectives**  **1.** To explore synth sounds within Sonic Pi  **2.** Engage in discussion over electronic music origins.  **3.** To alter structure on compositions | **Learning Outcomes**  **All** pupils would be able to write a section using synths and loops  **Most** pupils would be able to understand the principle of structure in code  **Some** pupils would be able to create a composition from blank |

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| **Resources**  Template for live coding, Example of electronic music |
| **Risk Assessment**  Medium – Trip hazard due to multiple cables, use of electrical equipment. |
| **Ultimate Learning Outcome**  **1.** To compose a piece of music using Sonic Pi  **2.** To create a live performance as a group using Sonic Pi  **3.** To understand how a computer can be used as a musical instrument |

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| **Timing** | **Task/Activity** | **Resources** |
| **Engage** | Review of previous week’s work and terminology through a question and answer session. Introduce the idea of a loop and relate it to musical structure. Demonstrate on the board for students to add into their work. Commands: *Loop Do, End* |  |
| **Explain/**  **Explore** | Demonstration on how to change instrument sounds in Sonic Pi by altering synths. Students should in the same pairs as last week try changing the synth sounds of last week’s work. Commands: *use\_synth:* | Template of finished song (encase work is lost) |
| **Engage** | Play a piece of electronic music and engaging the class in discussion over the sounds and possible origin. | Example of electronic music (see resources pack) |
| **Evaluate** | Reflect upon this week’s compositions and how they are creating music. |  |

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| **Equipment**  x15 Raspberry Pi, x15 Monitors, x15 keyboards and Mouse, x30 sets of headphones, x15 headphone splitters, x15 SD cards, x15 power supplies. |

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| **Possible Questions for Reflection/Recommended Resources** |
| Which terms would I use to write a melody on Sonic Pi?  What is the musical term used for writing ‘loops’? (Structure)  How would you describe the sounds of the synths?  What is the musical term for the way an instrument sounds? (Timbre)  How would you describe the sounds within the piece of music?  How are synths and conventional instruments different?  Template ideas: *Twinkle, Twinkle/Old McDonald*  Existing song ideas: *Aphex Twins* |

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| **Assessment** | **Assessment Criteria** |
| **Individual** – Using all knowledge gathered throughout the course students should create their own personal composition based around the suggested briefs listed (*Can be altered*).  **- Compose an original piece in any style.**  **- Compose a horror soundtrack for a film**  **- Rewrite a famous/well known song using Sonic Pi.**  Documentation on planning and development of the composition is also recommended to aid assessment. This can be completed via: written, audio diary, video diary. (*Due week 10*) | Use a system of 1-4 to assess different aspects of the composition  **Technique**  **1** (*easy*) – correct use of commands: play, sleep, loop do, end  **2** (*Intermediate*) – correct use of commands above plus: use\_synth, use\_sample,  **3** (*Upper Intermediate*) – correct use of commands above plus – in\_thread do, with\_fx, attack, release, sustain.  **4** (*Advance*d) – correct use of commands above plus: rrand, .choose, default.  **Structure/Texture**  **1** (*easy*) – use of 2-4 loops to create different sections  **2** (*Intermediate*) – The above plus use of multiple synths and instruments.  **3** (*Upper Intermediate*) – Use of threads to layer instruments in time  **4** (*Advance*d) – Advanced use of threads and instruments.  **Timbre/FX**  **1** (*easy*) – correct use of at least 2 FX  **2** (*Intermediate*) – the above plus altering parameters of FX throughout piece.  **3** (*Upper Intermediate*) – the above plus use of instrument manipulation.  **4** (*Advance*d) – the above plus combination of other features into FX such as rrand.  **Style/Write Up**  **1** (*easy*) – piece matches overall feel of brief.  **2** (*Intermediate*) – Clear sense of influences and application.  **3** (*Upper Intermediate*) – Detailed reflection using correct musical terms on piece.  **4** (*Advance*d) – piece stands on its own as a composition with a detailed write up explaining thought process of creation. |
| **Performance** – All students will engage in a soundscape performance at the end of the term. There will also be opportunity for students to conduct as well. Possible environments. (*Due week 11*)  - **Space, City, Forest, Underwater** | **Preparation**  **1** (*easy*) – inadequate preparation of 4 soundscapes.  **2** (*Intermediate*) – 4 basic loops for performance with a clear contrast in sound  **3** (*Upper Intermediate*) – use of advanced techniques to create soundscapes.  **4** (*Advance*d) – Loops display clear understanding of sounds in relation to music using advanced techniques  **Performance**  **1** (*easy*) – Compositions are played without interaction.  **2** (*Intermediate*) – correct use of faders to alter dynamics.  **3** (*Upper Intermediate*) – basic use of live coding within performance.  **4** (*Advance*d) – Advanced use of live coding potentially from a blank workspace during the performance. |