Unit Planner – Design Technology Year: 6 Title: Micro Bits Volcanic Animations

Unit Overview	In this unit children will learn how to program the Micro – bit to show a volcanic eruption. They learn the importance of breaking things down into bits, thinking of an animation and then repeating to create an effect. They learn why it is important to de – bug and correct mistakes so the program owrks well.	
Prior Learning/ Links		
Unit Title:	**Substantive Knowledge**	**Disciplinary Knowledge**
Key Questions: **What is de composition?** **Why is repetition so important?** **What is an algorithm?** **Why do we test and de - bug?**	• Children know that decomposition can be used to record steps to a process. • Children can record simple steps in a sequence using a flip animation. • Children can write simple flow chart algorithms plotting a sequence of moves. • Children can explain the importance of repetition in a sequence. • Children know how to program a micro – bit to re create a volcanic eruption. • Children can describe the sequence they have used and how it works. • Children know why it is important to test and de – bug a program so that there are no glitches. • Children are able to explain how to test and de – bug a program. • Children can evaluate their work using substantive and disciplinary knowledge.	**Critical Evaluation** • **To test and de – bug programs so they work effectively.** **Purpose/ Audience or Design** • Use design to make a product fit for purpose and for a specific audience **Making/ Technological Knowledge** • Selecting tools and materials appropriate for tasks. - Explain choices made to construct a product based on characteristics -
Vocabulary	**Trips/ Visits/Useful Websites/ Resources**	**Key Misconceptions:**
Substantive: Algorithm De – bug Repetition Decomposition Flip animation sequence **Disciplinary:** **Program** **Choices** **Testing** **Design**	Micro:bit Educational Foundation | micro:bit (microbit.org)	

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Effective		