Intent, Implementation and Impact Overview – Mathematics

Subject Leader Curriculum Intent, Implementation and Impact Overview			
Subject: Mathematics		**Subject Leader: Rosie Baker, Liam Cook & Chris Townend**	
Intent	**Research Link**	**Implementation**	**Impact**
Provide an ambitious mathematics' curriculum, with an embedded CPA approach, that builds on previous learning and values both knowledge and skills. Support the promotion of independence, inclusivity and challenge for all. Enable children at Balksbury Federation to become confident and fluent mathematicians with a secure grounding in their understanding of number, through the development of mental arithmetic, number facts and number skills. Support the teaching of problem solving and reasoning through a metacognitive and mastery approach to enable all children to explain mathematical thinking and processes clearly, through both written and spoken language.	**Bruner (1966):** Bruner's Learning Theory (1966) and the enactive mode of development outlines how new concepts should be presented to children through actions and objects first. His research highlights how children need to physically manipulate objects in order to fully understand a new idea. Over time, children then have the ability to progress onto the iconic and symbolic modes of development where they begin to use pictorial and then abstract methods during mathematics. *This supports Balksbury Federation's CPA approach.* **Haylock (2014):** Haylock (2014) states how all children must be able to fluently and rapidly recall number facts in order to be able to learn new concepts fully. *This supports Balksbury Federation's emphasis on mental arithmetic and the quick recall of number facts.* **EEF Metacognitive and Self-Regulated Learning (2021):** 'The purpose of modelling is to help novice pupils become more capable of learning independently and thinking metacognitively.' (page 16) 'Challenge is key to developing self-regulation and metacognition: if learners are not challenged, they will not develop new and useful strategies, or stretch their understanding of themselves.' (page 18) 'A successful pupil will regularly engage in metacognitive reflection, asking questions of themselves as they learn and take on challenging tasks.' (page 18) *These statements support Balksbury Federation's emphasis on providing challenge for all as well as teaching through a metacognitive and mastery approach.*	**Progression of Knowledge and Skills:** This document provides all teaching staff with a clear understanding of the mathematics knowledge, vocabulary and skills that are taught across the federation. This document also outlines the progression within and between year groups. **Expectations Document:** This document ensures a consistent and high quality approach to the daily teaching of mathematics which builds on prior learning to enable maximum progression for all. The federation also has a clear and simple planning frame to ensure a consistent approach to teaching and assessment across the federation. **Exemplification Guidance:** These documents provide clear examples for each mathematics objective in order to support accurate assessment.	All children will be engaged and excited in their maths learning through meaningful activities in context. All children will leave Balksbury Federation having developed a deep understanding of number and mental arithmetic that they can apply in real life. All children will have made good progress from relative starting points in their understanding of the maths skills that they have been taught. They will be able to use these to teach others and solve real life problems, being able to reflect and adapt as they go. All children will leave Balksbury Federation as confident mathematicians with a range of strategies that they can use to take ownership of their learning. All children will be able to make choices and tackle mathematical tasks in different ways using the range of skills and strategies that they have been taught throughout their time at Balksbury Federation. All children will develop the ability to articulate their choices and explain how they will go about solving a mathematical problem, and find alternative solutions if their first try doesn't work.