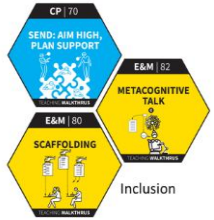
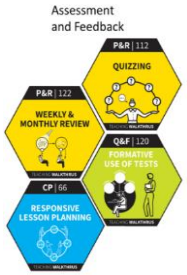
Subject Overview: Computing

Progression and Skills		
As a KS1 digital learner I can…	***As a LKS2 digital learner I can…***	***As a UKS2 digital learner I can…***
…program computers. ✓ Use algorithms ✓ Create and debug programs ✓ Use logical reasoning to predict programs' behaviour **…be digitally literate.** ✓ Use technology safely and respectfully ✓ Keep my personal information private and know where to go for help about content and contact ✓ Use technology with a purpose by creating, organising, storing, manipulating and retrieving digital content ✓ Photography ✓ Word processing **…use Information Technology.** ✓ Recognise IT in and outside of school ✓ Explain how technology and IT benefit our lives	**…program computers.** ✓ Design, write and debug programs ✓ Explain how algorithms work through logical reasoning ✓ Control or simulate physical systems ✓ Explore sequencing, repetition and loops in programs **…be digitally literate.** ✓ Use technology safely and respectfully and responsibly ✓ Recognise unacceptable behaviour and how to report concerns about content and contact ✓ Use software to purposefully create content with a focus on: Microsoft Word and Microsoft PowerPoint **…use Information Technology.** ✓ Understand computer networks ✓ Explain how computers connect through input, process and outputs ✓ Know that the internet is a network of networks known as the WWW	**…program computers.** ✓ Design, write and debug programs, using logical reasoning to explain how algorithms work ✓ Control or simulate physical systems ✓ Explore selection and variables in programs **…be digitally literate.** ✓ Use technology safely, respectfully and responsibly ✓ Recognise unacceptable behaviour and how to report concerns about content and contact ✓ Use software to purposefully create content with a focus on: Microsoft Excel, Microsoft Word, Microsoft PowerPoint (and/or Google's equivalent workspace) **…use Information Technology.** ✓ Understand computer networks ✓ Understand how search technologies work ✓ Understand how data is transferred

What makes this subject special here?		• Staff meeting time given to train teachers and keep knowledge up to date (including online safety) • Headphones available to work independently. • Beebots and Micro:bits available for physical computing. • Previous links to Computing Hub (Odyssey). • Positive team, interested in and motivated to adopt new things e.g., Padlet • Chrome books / Ipads regularly available in each phase. • Dedicated IT Suite allows children to experience PCs as well
Accessibility for All *pedagogy scaffolding, resources, enrichment, challenge, equity of access*		• Teachers model live using IWB/Projector and talk through what they are doing so children can see how to navigate materials. • Paired use of technology is encouraged so pupils can learn collaboratively – especially when approaching brand new skills. • Use multisensory approaches**:** Physical Computing and systems like Bee Bots and Micro:bits help pupils with SEN/EAL grasp new ideas and progress these into more abstract curriculum areas. • Image-based coding keeps programming simple to prepare children for text-based coding at Secondary. • Apps and programs selected and prepared which allow children to make individual progress based on their own needs e.g., Hour of Code, Typingclub.com track what children can do and change what is presented to them or how quickly they can work through the units of work. • Micro:Bit, Stop motion video and Computing clubs have been used to extend access.
Assessment *principles-based*		• Pupil Voice Informal discussions and more formal group interviews with pupils about their learning and what has worked well, or not so well. • KS1 – Floor books used to check progress against individual lesson criteria and milestones in an informal manner which helps keeps teacher's workload manageable. • KS2 – Teach Computing Summative Assessments at the end of units provide assessment which can be actioned upon. Marked automatically through Forms which keeps teacher's workload manageable. • Regular Padlet activities and polls which provide live formative assessment during lessons which teachers can celebrate and challenge in the moment.