Archbishop Cranmer CE Primary Academy's Science

Pedagogical Approach and Strategies	• Follow our Progression of Skills document, which is cumulative, well planned, and sequential – it builds on prior learning taking in to consideration future learning to ensure the children are knowing and remembering more. As children progress through the year groups, they build on their skills in working scientifically, as well as on their scientific knowledge, as they develop greater independence in planning and carrying out fair and comparative tests to answer a range of scientific questions. • The intent is determined for ALL children to succeed regardless of starting points. • We develop in all our pupils a lifelong curiosity and interest in the sciences. • Our children will have the opportunities to learn through varied systematic investigations, leading to them being • They will be equipped for life to ask and answer scientific questions about the world around them. • Aim to use a 'Five-a-Day' Approach: • Explicit instruction: Teacher led • Clear explanations, modelling, checks for understanding • Guided practice • Independent practice • Cognitive and Metacognitive Strategies: Managing cognitive load • Focus on long term memory • Pupils to be able to plan, monitor and evaluate their learning • Scaffolding: • Supportive tools and resources • Frame, partial examples • Decreasing Flexible Grouping: • Groups are temporary • Skill focus • Re-join main class Using Technology: • Modelling • Learning, practice, recording of learning • Visualiser • Lessons include key learning, prior learning, future learning, key vocabulary and possible evidence. • The acquisition of key scientific knowledge is an integral part of our science lessons. Linked knowledge checkers enable children to learn and retain the important, useful and powerful vocabulary and knowledge contained within each unit and beyond. • Engage children with a range of text types, themes and high-quality vocabulary – language rich. • Build on prior learning • Scaffold up rather than down (Up2s and Go4s evidence this) • Pupil Voice • Provide targeted vocabulary instruction in every subject. • Support pupils to develop their reading fluency through scientific texts.

Environment	• Creative and engaging displays in classrooms. • 'Scintillating Science' display in KS2 corridor. • Access to scientific books in classrooms. • Teachers create an atmosphere that encourages a love of science eg big questions/science week/hands on approach • Word rich environments – vocab/language displayed around the school/classrooms • Science is celebrated and encouraged at every opportunity
Assessment	• Teachers use a diagnostic assessment to address learning gaps • Opportunities to reflect on pupils' thinking, strengths, and weaknesses. • Indicate areas for development with individual pupils or across classes and year groups. • Teachers know why they are conducting assessments: what information and what is the use of this information • Assessments are well structured, impactful and acted upon • Termly summative assessment tests for each year group using Headstart • • Learning walks, moderations, observations – staff involvement with reviewing reading systems in school • Yearly governor visit to monitor reading teaching and talk with the children • Target teaching and support by accurately assessing pupils' needs.
Timetabling	• Weekly lesson per week • 'Grab and grow' intervention groups - small group (flexible) as and when needed. • Science week across whole school each March, with whole school collaborative planning and sharing.
Interventions and provision for vulnerable groups inc. EAL	• Focus Group sessions to ensure 'keep up' not 'catch up' • Say Hi Translate App available so all children can access the full curriculum at their level
Staff CPD and induction	• Termly staff meetings to disseminate training and practice • CDP courses throughout the year accessible to all • Shared PPA used to feedback and set new learning • Subject Facilitator meetings across the MAT, Science lead feeds back to staff. • ECTs and new staff including teachers observe lessons.

Community	• Science events such as British Science week • Teacher's from other school deliver lesson eg bridge building challenge from Nottingham High • Robot building and programming as part of STEM delivered by Our Futures • Lego Van- whole school able to build and programme a community with eg moving wind turbines • Visits to science museums eg National Space Centre • Work with other Inspire schools eg all children in Y5/6 given same question to investigate then share with each other