St Austin's R.C. Primary School

Curriculum Rationale

Curriculum Area:	**Science**
Leader:	**Heather Swift**
E.Y.F.S.	Teachers in the EYFS focus Science within the Natural World objective within Understanding of the World. Emphasis then is on child-initiated exploration where children move from teacher-led learning to continuous provision where they investigate aspects of the curriculum. The children listen to a broad range of stories relating to their scientific aspects aiding the teachers to guide the children into making sense of the world around them. Key words are put in all areas to encourage children to use appropriate language when exploring. The themes for the Natural World are encouraged to introduce the children to key topics that will be built upon as they continue their journey into KS1.
KS1 provision:	Teachers use a combination of the Scholastic Science unit plans, edited Twinkl lesson resources and their bespoke resource ideas based upon the National Curriculum objectives for their year group. Science is often inspired or linked by a text, preferably a whole text. This will include picture books in many of the topics. As part of the teaching of Science, children are taught either two lessons per week or one extended session to fulfil the teaching requirements for this subject and allow time to immerse the children in exploration and investigations. In KS1, observing, performing and planning whole-class investigations begins to form an important part of the curriculum and children work together to execute the experiment. Discussion during the observational stages is key and utilised to model the key vocabulary for each topic. The children use their observations and with the help of their teachers and peers, create results and explanations to make sense of their scientific exploration.
KS2 provision:	Teachers use a combination of the Scholastic Science unit plans, edited Twinkl lesson resources and their bespoke resource ideas based upon the National Curriculum objectives for their year group. Science is often inspired or linked by a text, preferably a whole text. This may include picture books. As part of the teaching of Science, children are taught either two lessons per week or one extended session to fulfil the teaching requirements for this subject and allow time to immerse the children in exploration and investigations. In KS2, writing up investigations continues to form an important part of the curriculum and children continue to have the independent opportunity to at least once a term. In UKS2 the children are expected to have ownership in planning and creating their investigations within the relevant topics by utilising the skills of working scientifically that they have built upon throughout their journey through school.
Rationale:	We believe that good teaching of Science offers pupils the opportunity to access a wealth of knowledge and information which contributes to a secure understanding of how and why things work like they do. Science explains the mechanics and reasoning behind the daily function of complex systems, including the human body. Through secure teaching, pupils will use this knowledge to aid their understanding of new concepts, make well-informed decisions and pursue new interests. Science provides visible proof of many facts pupils read about in books or see on the television; this helps to increase their understanding and helps pupils retain that information. Tracking children's progress throughout their school life is vital in order to establish their acquisition of knowledge. Learning within each topic of science always starts with the children's prior knowledge and any misconceptions that they may have. This is undertaken through a bespoke age related way of obtaining the children's prior knowledge, which has been created by the children's teachers tailored to the objectives that are to be covered. Units of work are then personalised to the needs of the groups of learners.

	Any misconceptions that arise throughout the unit are identified and address appropriately. End of topic assessment take place following the end of the topic. The Scholastic units of work provide teachers with a solid foundation to ensure that all the National Curriculum objectives are taught. The Twinkl units are used as a method of stimuli aiding vocabulary choice and encouraging children to choose have modelled explanations and uses of key terms. All writing across the school is taught with purpose – the children are made aware that there is always an audience for their written work and that it is there to inform within science. For this reason, presentation and quality of work within science is expected to be the standard that they would produce within their English books. Teachers are expected to allow the opportunity for working scientifically where possible, with at least one investigation per half term.