St Alban and St Stephen Catholic Primary School and Nursery –

October 2023

Learning and Growing With God By Our Side

Science Expectations

Summary of Intent	*To give all children a strong understanding of the world around them whilst acquiring specific skills and knowledge to help them to think scientifically, to gain an understanding of scientific processes and also an understanding of the uses and implications of Science, today and for the future.*
Curriculum time	EYS - Continuous provision and weekly 30 mins/one hour lessons later in the year KS1 & 2: A session of science per week for at least one hour/ one and a half hours.
Organisation of curriculum	Through the study of science children will cover these broad areas of study involving keys skills and knowledge: • Work scientifically • Understand plants • Understand animals and humans • Investigate living things • Understand evolution and inheritance • Investigate materials • Understand movement, forces and magnets • Understand the Earth's movement and Space • Investigate light and seeing • Investigate sound and hearing • Understand electrical circuits See curriculum map: file:///I:/Staff/Faculty/Science,%20Eco%20and%20Computing/Science,%20ECO%20and%20Computing%20Faculty%202022%20-%202023/Science%2022-23/Science%20curriculum%20maps/Science%20curriculum%20map%202022-23.pdf
Key Planning Resources **Including any websites/ usernames**	Rising Stars 'Switched On Science' scheme of work: My Rising Stars - resources including assessment resources: (Boost Education platform) : https://boost-learning.com/
Planning Expectation- Long, medium and short-term	Long Term Plan: Curriculum Map. Short term and Medium Term Plans: As per topic e.g. Light. Planning is kept in folders on the school system in designated folders. Each year group also has a Rising Stars Teachers Guide with lesson plans and suggested resources as well as online content through 'My Rising Stars' (Boost Education platform) : https://boost-learning.com/
Length or structure of each unit or topic	Each year group has at least 6 units to cover by the end of the year. These are roughly the duration of a half term. (See Science curriculum map for details of topics).

Quantity of work expected	FS – Science lesson 2 times per week and CIL activities linked to skills taught. KS1 and KS2 – Learning content of lesson by each child and children's understanding of the learning, recorded in books (KS1 can use photos and speech bubble postit notes to capture pupil voice from a lesson) There should be at least one piece of recorded work in pupils' book for each week of the topic.
Learning objectives	The learning objective and success criteria for each lesson is provided in the 'Switched on Science' teacher's guide for each year group. Teachers may also feel the need to make these more child friendly. KS1 – Learning objective sticker in books – highlight pink parts achieved. KS2 – Children write learning objectives (Sticker or adult to write for SEN if necessary)
Recording and expectations of presentation	EYFS – photographs and observations of children's learning. Later in the year, recording in writing books. KS1 – written work recorded in books, photographs of practical activities. KS2 – written work recorded in books, photographs of practical activities (if appropriate). Various methods of recording should be: ▪ Scientific format: Question/ objective; Prediction; Equipment needed; Fair test (where applicable); Method; Results; Conclusion. ▪ Data: using graphs, charts, statistics. ▪ Observations; investigations; explanations; summaries. ▪ Scientific vocabulary should be spelled correctly. ▪ Questioning to develop scientific inquiry skills and curiosity. Differentiated learning resources/adaptations should be evident. Recording work in books to follow presentation policy (handwriting to follow Penpals and DUMTUM).
Learning Environment **(displays, grouping, resources)**	Each class should have at least one science display per term to reflect the learning of the children and the topics being studied. Scientific vocabulary related to the topic should be part of the display. Photographs, pupil voice, examples of children's work and learning can also be included with displays.
Lesson Structure	Introduction, questioning, discussion and teaching new facts and concepts. Investigations, experiments with practical hands on activities which each child can access. Opportunity to record work in light of what has been discovered or learnt during the session and to draw conclusions from that learning.
Teaching strategies	Children should be able to work individually, in pairs and in groups, to share different skills and knowledge. Give children the opportunity to learn through practical hands on experiences and access for each child to resources needed to carry out scientific inquiries. Use of the outdoor space. Encourage collaborative work and discussion of their work. Links to other curriculum areas such as use of data logger/ QR codes (Computing), data presentation (Maths) and methods of recording e.g. summary (English). Use of questioning to encourage analysis and curiosity.
Differentiation and adjustments	Scaffold and allow extra time for children that struggle. Provide 1:1 support where necessary; Encourage collaborative learning so children can learn from their peers; Provide key vocabulary to support with EAL; Sentence starters; Visuals/ key words; Pre-teaching- 5 minutes introducing key ideas before lesson with teacher/TA; Scaffolded worksheets.

Assessment	Rising Stars assessments (Boost Education platform) : https://boost-learning.com/ Either written assessments or use of online assessment tools on Boost on the above link. Use of informal questioning in lessons and green prompts for questions in books to assess learning for individual lessons. Extended pieces of writing – one per term.