## Curriculum Intent for Science at Blessed Robert Sutton Catholic Voluntary Academy from KS3-KS4



Science at Blessed Robert Sutton allows pupils to gain a coherent understanding of the links between structure and function of living organisms; understand the properties and interactions of matter in all its forms; understand forces and the impact of these on matter; explore chemical interactions; develop a deep understanding of the world around them. Throughout the curriculum the students will become proficient practical scientist enlightened by The Sutton Way.



Science will teach spiritual development by pupils developing an appreciation of God's creation and an understanding the interactions of science and religion. Pupils will understand uses of the Earth's recourses and how these need to be preserved and recycled, strengthen their understanding of sustainable energy sources. Pupils will be equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future. They will be taught to be critical about information and to evaluate strategies and behaviours that could have an impact on the environment. Pupils will at times explore the relationship between the Church and the scientific community - and potential conflicts.



Science will teach social excellence throughout the curriculum by encouraging students to listen to each other's points of view and respecting those views shared. The curriculum allows students to work together effectively in practical and non-practical situations. Pupils will develop their analytical skills and learn to draw conclusions from observations made and communicate these ideas in a variety of ways.



Science will teach academic excellence by developing an understanding of the academic rigours of studying Science. Pupils will develop an understand of scientific literacy and become proficient at using it. Teaching will equip pupils to critically analyse scientific theories and question observations made in practical investigations. Pupils will strengthen their understanding of practical equipment and be able to manipulate the equipment with confidence, including the use of microscopes; safe handling chemicals; carrying out chemical reactions; taking measurements of time, distance and forces in different contexts. Pupils will develop their mathematical skills through manipulation of calculations and graphically displaying information.

Pupils will follow the Key Stage 3 National Curriculum through the AQA KS3 syllabus and KS4 they will move to study AQA Trilogy GCSE Combined Science or choose to study AQA Trilogy GCSE Separate Science. As a result, the Science Curriculum aims to enable pupils to:

- Develop a range of practical skills which will allow pupils to apply observe scientific theories
- collect, analyse and communicate with a range of data gathered through practical work that deepen their understanding of scientific processes
- communicate scientific information in a variety of ways, including through graphs, tables, diagrams and through extended pieces of writing
- develop scientific knowledge that questions the world we live in
- develop knowledge of the how the human body functions including mechanisms for breathing, digestion and reproduction; how chemicals react and bond together; how forces interact; develop an understand of the structure of our planet and how we impact it; understanding our energy usage;
- prepare our pupils for life in an increasingly scientific and technological world today and in the future
- encouraging open-mindedness, self-assessment, perseverance and developing the key scientific skills of hypothesising, observing, interpreting, explaining, analysing and evaluating