Overview	Science plays an important part in understanding the world around us and developing key skills. A successful scientist will not only be equipped with a sound understanding of scientific concepts but will also demonstrate practical, mathematical and communication skills. We are strong believers in using a practical approach to enable students to see science in action rather than simply 'learning science'. For that reason, students are hands on and, as a result, greatly enjoy science at St Michael's.
What skills will pupils develop?	Students will develop skills that help them analyse, explain and evaluate data. They will perform investigations and experiments that will make them more proficient in handling apparatus and equipment. They will develop curiosity and intrigue into world around them.
What will help pupils to learn?	Inspiring staff and stimulating activities alongside active learning and tailored assessments will encourage students to progress well.
KS3 Course Structure	Students in year 7 and 8 will study a two-year science curriculum which will prepare them for the new GCSE. They follow the KS3 AQA Ten Big Ideas Curriculum, covering the following key topics: 1. Forces 2. Electromagnets 3. Energy 4. Waves 5. Matter 6. Reactions 7. Earth 8. Organisms 9. Ecosystems 10. Genes These topics are developed at KS4 with an aim to build on prior learning and develop a mastery approach.
KS3 Assessment	Students will sit ten assessments each year that will test their knowledge, understanding and working scientific skills. Staff will use assessments to identify the strengths and weaknesses within each unit to help students fill in the gaps in their knowledge. At the end of the year students will complete an end of year exam.
KS4 Course Structure	We offer a variety of AQA qualifications at KS4. Entry Level Certificate, Single Sciences and Double Award (Trilogy). **Biology Topics include:** 1. Cell biology 2. Organisation 3. Infection and response 4. Bioenergetics 5. Homeostasis and response 6. Inheritance, variation and evolution

	7. Ecology **Chemistry Topics include:** 1. Atomic structure and the periodic table 2. Bonding, structure, and the properties of matter 3. Quantitative chemistry 4. Chemical changes 5. Energy changes 6. The rate and extent of chemical change 7. Organic chemistry 8. Chemical analysis 9. Chemistry of the atmosphere 10. Using resources **Physics topics include:** 1. Energy 2. Electricity 3. Particle model of matter 4. Atomic structure 5. Forces 6. Waves 7. Magnetism and electromagnetism 8. Space physics
KS4 Assessment	**Double award:** This course is assessed through end of course examinations. There is no controlled assessment element. Students will sit two 1 hour and 15 minutes exams for each science, all weighted equally at 16.7 %. Therefore, in total they will sit 6 exams which account for 100% of the total GCSE marks. **Single Sciences:** This course is also assessed through end of course examinations and has no controlled assessment element. Students sit two 1 hour and 45 minute exams for each science, all weighted equally at 50%.
Staff	Mrs S Beardsmore – Head of Science Mr S Lakin Mrs G Mann Mrs J Malhi Mr S Dix Mr C Mitchell-Barnes Mr D Shikotra Mr V Vadukar Miss H Dhillon Miss A Rahman Mr D Wakelin Mr C Alderman Mr M Holloway Miss H Coley-Smith
Opportunities out of lessons	The students are actively encouraged to involve themselves in some of the

	extra-curricular activities that the department provide such as; STEM club, science academy and science club.
Career Pathways in this subject	Careers could include: research science, medicine, sports science, all kinds of body therapies, chemical engineering, pharmaceuticals, astronomy and teaching. The possibilities are endless.