“Love Learning, Love Life…in all it’s fullness”

Mathematics Curriculum Intent, Implementation and Impact Overview			
When pupils understand maths they are provided with a foundation for understanding the world around them. The ability to reason mathematically, to have an appreciation of the power of mathematics is to prepare them for the wider world in which they live. Our mathematics curriculum provides pupils with an opportunity to practice, recall and apply the fundamental skills to increasingly complex and sophisticated problems. Holyport pupils will be taught over a series of lessons which include: Revisiting previously taught knowledge and skills; Mathematical vocabulary; Exposure to varied fluency, reasoning and problem solving; Concrete concepts, pictorial representations and abstract methods. At Holyport Primary school we expose our pupils to a breadth of challenges, inspire learners to develop a love of mathematics and encourage them to appreciate the creativity and possibility of all things mathematical! Through the use of rigorous planning, teaching and assessing, we intend to scaffold and challenge our leaners to enable them to develop confidence and efficient strategies to be able to build their mathematical confidence and make a positive contribution to the wider world.			
INTENT	RESEARCH	IMPLEMENTATION	PLANNED IMPACT
The 2014 National Curriculum for Maths aims to ensure that all children: Become fluent in the fundamentals of mathematics, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately. Are able to reason mathematically and develop an argument, justification or proof using mathematical language.	According to the 2014 Mathematics Curriculum: Key Stages 1 to 2 Programmes of Study for the national curriculum in England, states that: Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history’s most intriguing problems. It is essential to everyday life, critical to science, technology and	To ensure whole school consistency and progression, the school uses the nationally recognised White Rose Maths scheme. The White Rose curriculum is a cumulative curriculum, so that once a topic is covered, it is met many times over in many different contexts. For example, place value is revisited in addition and subtraction and multiplication and division. The curriculum recognises the importance of children’s conceptual understanding of number. It is therefore designed to ensure that time is invested in reinforcing these key skills in order to build competency. Daily maths lessons are planned to provide plenty of opportunities to build reasoning and problem solving elements within the curriculum. When introduced to a new concept, children have the opportunity to use	At Holyport, we have a supportive ethos and our approach encourages the children to develop their independent and collaborative skills, as well as building confidence and understanding the importance of building confidence in others. Students can underperform in Mathematics because they believe they cannot do it or are not naturally good at the subject. This is often reinforced by parents saying, ‘I couldn’t do maths at school either’. The school’s use of White Rose Maths addresses these preconceptions by

Can solve problems by applying their mathematics to a variety of problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions. At Holyport, these skills are embedded within our daily Maths lessons and developed consistently over time. We are committed to ensuring that children are able to recognise the importance of Maths in the wider world and that they are also able to use their mathematical skills and knowledge confidently in their lives in a range of different contexts. We want all children to enjoy Mathematics and to experience success in the subject, with the ability to reason mathematically. We are committed to developing children's curiosity about the subject, as well as an appreciation of the creativity and power of Mathematics.	engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject. Reform to the Curriculum in 2014 was necessary because: Research has shown that there are clear deficiencies in the current National Curriculum in England. All high-performing systems strongly emphasise the fundamentals of core academic subjects and allocate them substantial time – yet in England we have been moving away from this approach. Our analysis of the curricula used in high performing jurisdictions has shown, in particular, that our primary curriculum in mathematics and science focuses insufficiently on key elements of knowledge and is	concrete objects and manipulatives to help them understand what they are doing. Alongside this, children are encouraged to use pictorial representations. These representations can then be used to help reason and solve problems. Both concrete and pictorial representations support children's understanding of abstract methods. Mathematical topics are taught in blocks, to enable the achievement of 'mastery' over time. These teaching blocks are broken down into smaller steps, to help children better understand the concepts being taught. This approach means that children do not cover too many concepts at one time, which can lead to confusion and cognitive overload. Each phase/block of lessons provides the means for children to build their mastery of the mathematical knowledge or skill. With opportunities for children who are quick to grasp new content, being offered rich and sophisticated problems, within the lesson as appropriate. We understand the importance of key skills and how these underpin the learning in mathematics – and in order to encourage pupils to learn these key skills to build confidence in the subject we run a weekly 99 club. The 99 Club is a mental-oral starter at Holyport which aims to raise standards in maths through encouraging pupils to improve their mental calculations when attempting quick-fire multiplication and division problems. As the children progress through the clubs they will apply their knowledge in more abstract ways, finding square numbers, square roots and fractions and percentages of quantities.	ensuring that all children experience challenge and success in Mathematics by continuing to develop a growth mindset across all aspects of our school curriculum and the use of our Learning Working Heads to encourage and develop key learning behaviours. Regular and rigorous application of the: assess, plan, teach, assess cycle ensures that teachers have a clear understanding of pupils' strengths and weaknesses and can support and enable the success of each child. The above factors ensure that we are able to develop not only pupils' knowledge and understanding, but also their confidence. Regular practice of key skills within the daily lesson and work set as homework means that pupils develop their knowledge and confidence enabling them to tackle more sophisticated and complex problems.

	not as demanding as in other jurisdictions. Before the reforms to the 2014 Curriculum, in mathematics specifically, England was among the countries with the lowest levels of participation for 16 to 18-year olds, with fewer than 20% of young people studying mathematics to 18. In most high performing jurisdictions, the study of mathematics in this age group is almost universal. The Government has already set out its ambition for the vast majority of young people to study mathematics through to 18. *The essence of mathematics is not to make simple things complicated, but to make complicated things simple.* *~ Stan Gudder*	To develop pupils' confidence in recalling their multiplication facts we use the website Times Table Rockstars. All pupils from Y1 (introduced to the pupils in the Spring term) to Y6 have log in details and can access the website. We run 'battles' every short term where the pupils can compete within the class, across classes and with teaching staff. Pupils also have the opportunity to earn certificates and levelled badges linked to their response time. To support parents with supporting and encouraging their children with homework we use the site MyMaths. Using this resource, students find engagement through purpose and reward. MyMaths provides learners with the chance to put their mathematics skills to use through activities and challenges that are relevant and engaging.	

CURRENT ACTION POINTS - for further details see our Mathematics Action Plan

- To develop fluency in arithmetic through continued use of '99 club' and additional learning opportunities (morning work, starts, etc)
- To develop recall of key facts in preparation for the year 4 multiplication test.
- To use regular assessments to identify pupils who are at risk of not making expected progress and provide targeted support.
- To ensure GDS pupils continue to make good progress to achieve their targets by the end of KS2.