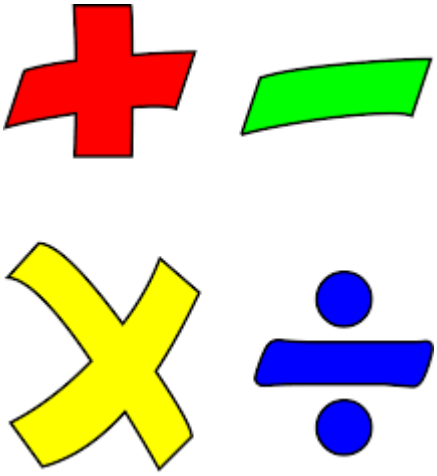

MATHS

At St. Bernadette's we aim for all our children to be confident and enthusiastic learners in Maths. Each lesson is taught in line with Curriculum objectives. There are lots of opportunities for children to consolidate and reinforce taught Maths skills.

STAR

At St. Bernadette's we follow STAR Maths -See, Try, Apply, Reason.

SEE – This area in Maths is where children watch and learn. Teachers model and demonstrate the concepts. Children interact and work through examples.
TRY – At this stage children independently try some examples. if children need additional help, a range of practical apparatus are available. Children only need to experience 6 examples as this demonstrates their understanding.
APPLY – This section is to enable children to become fluent in the fundamentals of Maths, through varied and frequent practice with increasing complex problems so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
REASON – Children are encouraged to reason mathematically by following a line of enquiry, conjecturing relationships and generalisation and developing an argument, justification or proof using mathematical language. Children will solve problems by applying their Maths to increasing sophistication including breaking down problems into simpler steps. The range of reason it questions includes: true or false, why or why not?, what do you notice?, what's wrong with? and explain type scenarios.

MASTERY

We have adopted a Mastery approach to our Maths teaching where teaching staff are well trained and have excellent subject knowledge. Maths is taught using the concrete – pictorial-abstract (CPA) approach, where children are introduced to mathematical concepts through manipulatives, which lead on to structured visual diagrams and eventually leading to generalised mathematical principles in the abstract phase. The curriculum supports mathematical vocabulary and retention of knowledge. Opportunities are consistently created to deepen the learning, space the learning and retrieval practice.

RESOURCES AVAILABLE

At St. Bernadette's we use a range of resources to aid and support the teaching and learning of mathematics. The NCETM, White Rose and Classroom Secrets provide staff with a wealth of information and ideas for fluency, application and reasoning skills in addition to powerpoints and teaching sequences
Practical equipment is also available in each classroom. Base 10, numicon and place value apparatus is used by teachers and children on a daily basis, giving them a strong base on which to move from the concrete to the pictorial stages.

SIGNIFICANCE OF MATHS

At St. Bernadette's we make links with Maths to the real world. Opportunities are given where Maths is part of our everyday lives, especially in regard in their lives and of an adult's. Opportunities such as the value of money and how it is used in different situations such as the need for budgeting in daily life. Also how it can link with other areas of our lives. For example, home improvements: measures for decorating or building. We also reveal more surprising links where Maths is used but probably not recognised such as with fractions: Walking to school and arranging to meet a friend halfway.

CREATIVITY IN MATHS

Having a Maths curriculum that is a creative one has allowed for more diverse learning and being more enlightening and surprising. The barriers between mathematical units are there to be knocked down so we can allow links to be made and crossovers to exist: using algebra in geometry to investigating problems involving a mix of fractions, area and money. The possibilities of being creative with Maths carries across to all other areas of the curriculum: measuring and converting distance on a map in geography to timings track events in P.E. that can be compared and ordered.

INVESTIGATIVE WORK IN MATHS

Every day is an investigation in Maths. Investigating new objectives, new areas of the Maths curriculum, new methods, different approaches to a specific mathematic aspect, through problems solving, real life scenarios and applying learning in activities give. We investigate how every aspect of the Maths curriculum works, how the curriculum have interwoven links and use Maths to investigate within other subjects across the curriculum.

COMPARISON WORK IN MATHS

It is essential that our Maths curriculum makes links between its different units of learning. Maths is an interlinking subject. Fractions are compared to decimals and percentages, we use our knowledge of reflection to help define and notice the differences when translating shapes. Methods and strategies are comparable as well. For our example, using practical strategies lead to using similar pictorial methods. Simple number skills carry on throughout both key stages to support use of larger numbers.

CHANGE

Maths helps to understand the size of numbers and by using measures aspects such as length, money, mass and time we can apply such knowledge to things that change. Through aspects such as measure we understand and learn about the scope of numbers, coming to comprehend how small or large, short or long, heavy or light something can be. And it is not just in the Maths lessons we see this change. Again aspects across the curriculum uses numbers to show change such as on a timeline, growth of a plant or timings in PE.

X TABLE TUESDAY

Times tables are a very important part of the Maths curriculum at St. Bernadette's. Times tables are taught in class within all areas of the STAR scheme. To increase importance, all children from Reception to Year 6 undertake a test every Tuesday with focus on x tables and division facts. Reception and Year 1 have number bond facts for rapid recall.

Each test follows the order of times tables as the National curriculum states – 10,2,5 first followed by 3,4,8 etc.. Children have to pass the test in the specified time in order to progress. Any children seen to be still on the same test after a couple of weeks will have additional focused support to help them move on.

The division facts are building children's confidence with the inverse which is just as important as knowing the x table itself.

As an additional incentive for learning the facts, children can achieve a certificate for Bronze, Silver Gold Platinum and Titanium levels. These are combination tests involving mixed times tables and division facts.

All tests are timed to enable children to see how quickly they need to recall the facts. This is particularly important for Year 4 pupils as they will sit a timed test during Summer Term.