



**“Guided by Jesus Christ, our teacher, we journey together,  
learning to dream, believe and achieve”**

**Most Able Policy**  
**For Mathematics 2015-2016**

“Meeting the educational needs of the gifted and talented is about building on good general school provision, not about providing something entirely different.”  
Professor Deborah Eyre, 2001.

**Definition of Gifted and Talented or Most Able**

Nationally the term ‘gifted’ refers to pupils who have abilities or who have the potential for these abilities, in one or more academic subjects in the statutory curriculum.

The term ‘talented’ refers to pupils who excel or who are potentially able to excel in one or more specific fields such as art, music, PE or performing arts.

The terminology for this group of pupils is varied and changing. Over the years many terms have been used, often being grouped into ‘gifted and talented’ and more recently ‘most able’ (Ofsted).

The Ofsted school inspection handbook (January 2014) states that it is ‘important to test the school’s response to individual needs by observing how well it helps all pupils to make progress and fulfil their potential’ and that it may be relevant to pay particular attention to the achievement of ‘the highest attainers’.

At St Clare’s we believe that all children within our school community have equal rights to the opportunities offered by education. We also understand that it is a myth and below our standards to accept that the most able pupils do well anyway and we recognise that they need as much support as other children.

**Aim of Most Able Policy in MATHEMATICS**

- To ensure class teachers can confidently identify, most able children as early as possible in their time at our school.
- Class teachers enter children’s names on the Most Able register,
- Class teachers, with the support of the Most Able Leader, will assess the needs and abilities of our most able pupils.
- Class teachers, with the support of the Most Able Leader, plan appropriate differentiation to allow these children to challenge and extend themselves beyond the levels of the highest ability group within the class, through enrichment, extension, opportunities for investigative learning or through the use of higher order thinking and questioning skills.

## Objectives

- To provide an enriched and challenging curriculum for able students
- To share good practice and provide appropriate teaching and support and resources
- To provide methods of identification

## Purpose

- To raise achievement of children with a mathematical gift
- To enhance teaching and learning
- To support teachers in delivering and developing a maths curriculum appropriate for the most able children.

## Identifying Gifted Pupils

Pupils who are gifted in MATHEMATICS are likely to:

### EYFS:

- Have uneven development
- Become cross if a task is too easy/challenging
- Need to own extended tasks
- Display unique creativity
- Often become easily bored and or disruptive
- Have very good verbal reasoning
- Need enrichment more than acceleration.

### Primary:

- Enjoy increased pace
- Need fewer steps in the process
- Need less instruction and practise
- Thrive on independent study
- Cope with abstract tasks
- Like open ended situations
- Need to learn to fail
- Need to be encouraged to take risks
- Need to develop self esteem in a supportive environment
- Learn and understand mathematical ideas quickly;
- Work systematically and accurately;
- Think logically and see mathematical relationships;
- Make connections between the concepts they have learned;
- Identify patterns easily;
- Apply their knowledge to new or unfamiliar contexts;
- Communicate their reasoning and justify their methods;
- Ask questions that show clear understanding of, and curiosity about, mathematics;
- Take a creative approach to solving mathematical problems;
- Sustain their concentration throughout longer tasks and persist in seeking solutions;

Some pupils who are gifted in mathematics perform at levels that are unusually advanced for their age. For example, an eleven-year-old may work confidently with the mathematics described for Level 5 in the national curriculum and begin to work successfully with concepts described for Level 6. Other pupils with exceptional mathematical potential may not demonstrate it in this way. For example, pupils may have high

levels of mathematical reasoning but be unable to communicate their ideas well orally or in writing. Sometimes gifted pupils reject obvious methods and answers as too easy, and opt for something more obscure. In these cases, formal testing alone is insufficient as a basis for identification. It is often helpful for teachers to provide enrichment and extension activities and to observe pupil responses to challenging activities.

### **Criteria for the identification of Most Able students in MATHEMATICS**

Throughout Key Stages 1 and 2 it is important for teachers to provide frequent opportunities for able pupils to show their potential. Pupils will reveal talents at different stages of maturity and often in relation to different aspects of the subject. Identification should be through using a wide range of evidence, much of which is likely to be informal.

- Quantitative assessment of skills through end of unit and end of year tests
- Qualitative assessment through teacher assessment of class work and homework
- Demonstrate above average performance (NC) compared to other students of a similar age and experience.
- Demonstrate originality and creativity in open-ended tasks

High ability does not always result in high attainment. Some able pupils may fail to achieve because they are not stimulated or challenged in the classroom. Others may be inclined to conceal their ability because of social pressures.

### **Enriching and extending pupils' experiences**

In order to challenge pupils who are gifted in mathematics, teachers should set activities that expect pupils to use a range of techniques accurately and efficiently, provide for a higher level of abstraction and lead to more advanced thinking.

When working with gifted pupils, teachers should aim to:

- Develop deeper understanding;
- Cultivate a willingness to reflect on the connections between different aspects of mathematics;
- Foster a desire to understand fully the mathematical concepts studied and the reasons why particular methods are correct;
- Develop higher-level thinking skills.
- Teach resilience and encourage risk taking.

Teachers generally use the national curriculum and the appropriate Framework for teaching mathematics as the starting point for planning their mathematics lesson. Teachers need to be sensitive to the following points:

- Activities should have clear goals, and should aim to increase pupils' ability to analyse and solve problems, stimulate originality and encourage initiative and self-direction;
- Activities should challenge pupils to develop their thinking through, for example, observing, comparing, classifying, interpreting and summarising;
- When open-ended tasks are used, teachers need to be clear what lines pupils are likely to pursue, what Processes are involved and what outcomes are achievable and expected;
- When providing additional work for most able pupils, care should be taken to ensure that the pupils do not come to view the work as an imposition;
- Most Able pupils should not be expected to work unsupported and undirected for extended periods.
- Most Able pupils should be routinely expected to master in greater depth than their peers, for example finding links between mathematical ideas and processes.

- Provide additional stimulus for most able pupils, for example number puzzles; work involving; word, time and calendar problems.

### **Using Thinking Skills**

- By using thinking skills, pupils who are gifted in mathematics can focus on 'knowing how', as well as 'knowing what' (learning how to learn). Mathematics is not just a collection of skills -- it teaches pupils to think, to reason, to solve problems and to think in creative ways.
- The sections of the programmes of study that relate to 'using and applying mathematics' outline relevant knowledge, skills and understanding, and provide opportunities for the development of the following thinking skills:

### **Enquiry Skills**

- The ability to ask relevant questions, to pose and define mathematical problems or enquiries, and to plan how to solve them. Most Able pupils can represent problems and can select and organise what to do

### **Reasoning Skills**

- The ability to recognise patterns and generalise, and to give reasons for results and conclusions. Most Able pupils in upper KS2 should be expected to analyse their results, looking for cause and effect, patterns and relationships. Activities in mathematics provide opportunities for them to draw inferences from data and to present reasoned arguments.

### **Creative-Thinking Skills**

- The ability to apply their mathematical skills to new and unfamiliar situations, to extend ideas, and to solve problems by considering new and flexible ways of doing things. Most able pupils should be expected to explore connections in their mathematical work, to use their imagination by asking questions such as 'What if?' and 'Why?'. They should explore, identify and use pattern and symmetry in mathematical contexts, and should select and combine known facts and problem-solving strategies in creative ways to solve problems

### **Evaluation Skills**

- The ability to evaluate information and to judge the value of their own and others' work or ideas. Most Able pupils in upper KS2 should be expected to review progress as they work in mathematics to monitor the accuracy and appropriateness of their solutions when solving mathematical problems.

### **Responsibility of the Able, Gifted and Talented Leader:**

- To monitor the effectiveness of the MATHEMATICS policy
- To keep the register of Most Able students up to date
- To ensure through training and monitoring that planning and teaching includes provision for Most Able students
- Audit of existing provision for Most Able students
- To build up a bank of appropriate extension materials and resources
- To keep up to date with new initiatives and refresh the policy as appropriate

## Responsibilities of the Class Teacher

- To provide stimulating work so students are motivated by challenge
- To provide opportunities for creative and unusual responses
- To identify underachieving students
- To set homework which challenges able students

## Teaching Strategies

Structured mathematics lessons provide opportunities for more able pupils to experience particular challenges and work focused at an appropriate level in each part of the lesson.

**Oral and mental work** should take a wide variety of forms. Where it involves oral questioning by the teacher, questions need to be planned carefully to ensure able pupils are engaged and challenged. This can be achieved through the use of open questions that can be answered at different levels (e.g. 'Give me three different numbers whose product is 120') or by the use of questions targeted at specific groups or individuals. When seeking oral responses from the class, it is important regularly to take some, but not all, answers from the most able.

**Plenary sessions** can provide a vital opportunity to assess, acknowledge and refocus the work of specific groups in the class. This is particularly useful where a group of more able pupils has reached a different point from the rest. For example, when pupils have been generating numerical sequences and exploring their patterns, all will be expected to offer generalisations while the most able will be invited to offer insights into why they work. The plenary is also an opportunity to consider whether homework tasks may need modifying to make them more appropriate for able pupils if this has not been planned in advance. In the main part of the lesson, you can match tasks to the needs of able pupils by:

- Starting pupils on a task at an appropriate level of difficulty;
- Using challenging questions to deepen thinking;
- Extending and opening up tasks.

Encourage pupils to take responsibility for working at a challenging and rewarding pitch. For example, where pupils are working through graded exercises for practice, encourage them to find the right level. The more able may be told: 'Start at question 10; if it is too easy jump to 15; if it is too hard, go back to number 5'. With encouragement, they can become adept at finding the questions that will challenge them. Emphasise quality over quantity. Help pupils accept that tackling one challenging question is often more worthwhile than doing 20 routine ones.

Plan a series of probing questions that can be used with pupils who are ready to deepen their understanding of a topic. Good prompts include:

- Why is this true?
- When does this not work?
- Can you see another way of doing that?
- Can you think of a counter-example?
- Write a paragraph explaining the idea for someone else.

## Out of Class Enrichment Activities

- EYFS-Y6 Problem Solving Workshop
- KS2 Primary Maths Challenge

## **Assessment**

- Ensure that assessments provide opportunities for students to achieve at highest level
- Class activities, testing throughout the year and end of year tests.

## **Monitoring and Evaluation**

- Able, Most Able subject leader responsible for ensuring the successful implementation of policy and practice
- Target setting and student feedback
- Curriculum monitoring

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**Signed by:** *W. Ryan*  
W. Ryan, Chair of Governors.

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