

## Egginton Primary School

<b>Science</b>
----------------

Date	Review Date	Subject Leader	Nominated Governor
January 2025	January 2026	Jack Banister	T & L

We believe this policy should be a working document that is fit for purpose, represents the school ethos, enables consistency and quality across the school and is related to the following legislation:

- Education Act 1996
- Education Act 1997
- Standards and Framework Act 1998
- Education (National Curriculum) (Temporary Exceptions for Individual Pupils) (England) Regulations 2000
- Education Act 2003
- Equality Act 2010

The following documentation is also related to this policy:

- Finding the optimum: the science subject report (Ofsted 2023)
- Teaching a broad and balanced curriculum for education recovery (DfE)
- The Education Inspection Framework (Ofsted 2019)
- An investigation into how to assess the quality of education through curriculum intent, implementation and impact (Ofsted 2018)
- Designing and Timetabling the Primary Curriculum - a practical guide for Key Stage 1 and 2 (Qualifications and Curriculum Authority 2002)
- Equality Act 2010: Advice for Schools (DfE)
- The National Curriculum in England Framework Document (DfE) 2014
- Race Disparity Audit - Summary Findings from the Ethnicity Facts and Figures Website (Cabinet Office)

We believe science education 'provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science. Through building up a body of key foundational knowledge and concepts, pupils should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.' (The National Curriculum in England Framework Document (DfE) 2014)

We have a duty to ensure compliance with the revised National Curriculum and with the application of the new programmes of study and attainment targets. We understand that 'the National Curriculum provides pupils with an introduction to the core knowledge that they need to be educated citizens.'

Our well-balanced curriculum promotes the spiritual, moral, cultural, cultural, mental and physical development of pupils and prepares them for the opportunities, responsibilities and experiences of later life. We will develop pupils' spoken language, reading and writing in all subjects and will develop pupils' mathematical fluency.

We strive to provide a curriculum that all pupils will find enjoyable with them understanding the relevance of their lessons. This can only be achieved by using the experience, enthusiasm and specialism of individual teachers who

## **Eginton Primary School**

provide interesting, relevant, purposeful and differentiated lessons based on real-life experiences, wherever possible, in a structured and well-ordered classroom environment.

Annually, we undertake a subject evaluation that is based on the following questions:

- How do we design and provide a curriculum that is broad and balanced for all pupils? (Curriculum Intent)
- How do we deliver our curriculum through teaching, assessment and feedback? (Curriculum Implementation)
- How do we assess pupil achievement through external tests/exam results and by our own school data? (Curriculum Impact)

We wish to work closely with the school council and to hear their views and opinions as we acknowledge and support Article 12 of the United Nations Convention on the Rights of the Child that children should be encouraged to form and to express their views.

We as a school community have a commitment to promote equality. Therefore, an equality impact assessment has been undertaken and we believe this policy is in line with the Equality Act 2010.

We all have a responsibility to ensure equality permeates in to all aspects of school life and that everyone is treated equally irrespective of age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex and sexual orientation. We want everyone connected with this school to feel safe, secure, valued and of equal worth.

We believe it is essential that this policy clearly identifies and outlines the roles and responsibilities of all those involved in the procedures and arrangements that are connected with this policy.

### **1. Aims**

- To ensure that all pupils develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.
- To ensure that all pupils develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them.
- To ensure that all pupils are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.
- To promote the teaching of numeracy and literacy within all subjects.
- To evaluate the school curriculum by focusing on curriculum intent, implementation and impact.
- To share good practice within the school.
- To work with other schools to share good practice in order to improve this policy.

### **Roles and Responsibility for the Policy**

#### **2. Role of the Governing Body**

The governing body has:

- delegated powers and responsibilities to the Headteacher to ensure all school personnel and stakeholders are aware of and comply with this policy;
- responsibility for ensuring compliance with the legal requirements of the national curriculum;
- responsibility for ensuring that the school complies with all equalities legislation;
- responsibility for ensuring funding is in place to support this policy;

## **Egginton Primary School**

- responsibility for ensuring this policy and all linked policies are maintained and updated regularly;
- responsibility for ensuring all policies are made available to parents;
- responsibility for the effective implementation, monitoring and evaluation of this policy.

### **3. Role of the Headteacher**

The headteacher will:

- Ensure all school personnel, pupils and parents are aware of and comply with this policy;
- ensure that teachers:
  - 'have good knowledge of the subject(s) and courses they teach;
  - have effective support for those teaching outside their main areas of expertise;
  - present subject matter clearly, promoting appropriate discussion about the subject matter they are teaching;
  - check learners' understanding systematically, identify misconceptions accurately and provide clear, direct feedback and in doing so, they respond and adapt their teaching as necessary, without unnecessarily elaborate or differentiated approaches;
  - design their teaching to help learners to remember in the long term the content they have been taught and to integrate new knowledge into larger concepts;
  - use assessment well in order to help learners embed and use knowledge fluently or to check understanding and inform teaching;
  - create an environment that allows the learner to focus on learning;
  - develop a rigorous approach to the teaching of reading in order to develop learners' confidence and enjoyment in reading;
  - use reading materials at the early stages of learning to read that are closely matched to learners' phonics knowledge'.
- ensure compliance with the legal requirements of the national curriculum;
- consider disapplying a pupil from all or part of the national curriculum for a period of time if this will benefit the child;
- provide leadership and vision in respect of equality;
- provide guidance, support and training to all staff;
- monitor the effectiveness of this policy by:
  - observing teaching and learning;
  - planning scrutinies and work trawls;
  - discussions with pupils and members of the school council.
- annually report to the governing body on the success and development of this policy.

### **4. Role of the Curriculum Leader (Headteacher)**

The curriculum leader will:

- provide strategic leadership and direction;
- provide a curriculum that provides pupils with the essential knowledge they need to be educated citizens in democratic Britain;

## **Egginton Primary School**

- ways of improving the curriculum and the way in which we deliver it with a view of ensuring the highest standards of delivery and consistency in pupil's learning and teaching experiences and opportunities throughout the school;
- provide an environment that is fun, stimulating and challenging to all pupils;
- promote an awareness of and respect for a diversity of cultures, values, beliefs and abilities;
- equip children with a range of skills and a desire for lifelong learning;
- ensure appropriate coverage of the curriculum;
- provide support and advice;
- monitor pupil progress;
- ensure sufficient and up to date resources are in place.

### **5. Role of the Subject Leader**

The subject leader will:

- lead the development of this policy throughout the school;
- work closely with the headteacher and SENCO;
- promote the teaching of numeracy and literacy within all subjects;
- be accountable for standards in this subject area;
- monitor standards by:
  - auditing the subject area;
  - review of the scheme of work;
  - monitoring teachers planning;
  - lesson observations;
  - scrutinising children's work;
  - discussions with pupils.
- ensure continuity and progression throughout the school;
- devise a subject improvement plan;
- provide guidance and support to all staff;
- provide training for all staff on induction and when the need arises regarding;
- attend appropriate and relevant INSET;
- keep up to date with new developments;
- undertake an annual audit and stock take of resources;
- purchase new resources when required and in preparation for the new academic year;
- manage the subject budget effectively;
- undertake risk assessments when required;
- review and monitor;
- annually report to the governing body

### **6. Role of Teachers**

Teachers will:

- comply with all aspects of this policy;
- devise medium and short-term planning;
- develop mathematical fluency, numeracy and mathematical understanding in all subjects;
- develop pupils' spoken language, reading, writing and vocabulary in all subjects;
- plan and deliver good to outstanding lessons;

## **Eginton Primary School**

- plan differentiated lessons which are interactive, engaging, of a good pace
- have high expectations for all children and will provide work that will extend them;
- assess, record and report on the development, progress and attainment of pupils;
- achieve high standards;
- celebrate the success of pupils in lessons
- implement the school's equalities policy
- report and deal with all incidents of discrimination;
- report any concerns they have on any aspect of the school community.

### **7. Role of Pupils**

Pupils will:

- comply with this policy;
- be encouraged to work in partnership with the school by making decisions and exercising choice in relation to their educational programme;
- listen carefully to all instructions given by the teacher;
- ask for further help if they do not understand;
- participate fully in all lessons;
- participate in discussions concerning progress and attainment;
- treat others, their work and equipment with respect;
- support the school code of conduct and guidance necessary to ensure the smooth running of the school;
- liaise with the school council;
- take part in questionnaires and surveys.

### **8. Role of Parents/Carers**

Parents/carers will:

- be aware of and comply with this policy;
- be encouraged to take an active role in the life of the school by attending:
  - parent-teacher consultations;
- be encouraged to work in school as volunteers;
- be encouraged to respond to curriculum information newsletter;
- be informed via termly newsletters of their child's topics;
- be asked to take part periodic surveys encourage effort and achievement;
- encourage completion of homework and return it to school;
- provide the right conditions for homework to take place;
- expect their child to hand in homework on time;
- join the school in celebrating success of their child's learning.

### **Policy Procedure**

#### **9. Teaching and Learning Style**

We use a variety of teaching and learning styles in order to develop children's knowledge, skills and understanding.

## **10. Curriculum Planning and Organisation**

Teachers collaborate on the planning of the subject to ensure parity in provision and to share expertise. Curriculum planning is managed in three phases, namely:

### **Long-term Planning**

- Details what is to be taught over the year for mixed-age classes;
- Provides teaching guidelines and overall objectives for each year group for the whole year.

### **Medium-term Planning**

- Organises the subject into termly or half-termly sections;
- More detailed and the objectives are more specific in nature;
- Developed by the teachers, who respond to the needs of their pupils;
- Ensures a balanced distribution of work is undertaken across each term.

### **Short-term Planning**

- Details the subject curriculum over the week;
- Plans lessons in detail with specific class objectives;
- Sets individual learning goals for each pupil.

## **11. Links with ICT**

The use of information and communication technology will promote, enhance and support the teaching of this subject area.

## **12. Inclusion**

We believe that we are an educationally inclusive school as we are concerned about the teaching and learning, achievements, attitudes and well-being of all our pupils. We aim to provide places for all pupils who express a preference to join this school.

We work hard to offer equality of opportunity and diversity to all groups of pupils within school such as children:

- from both sexes;
- who have special educational needs and disabilities;
- who are looked after;
- from minority faiths, ethnicities, travelers, asylum seekers, refugees;
- who are gifted and talented;
- who are at risk of disaffection;
- who are young carers;
- who are sick;
- who have behavioural, emotional and social needs;
- from families who are under stress.

We believe we have a duty to ensure that all children have equal rights to the opportunities offered by education and that all children will be encouraged to fulfil their potential in their academic, physical and creative

## **Egginton Primary School**

achievements. We want to give all children the right to access high quality educational experiences, to take part in a broad and balanced curriculum and to be part of the social life of the school.

We recognise that within the school we have more able, gifted and talented children. We believe that:

- more able children demonstrate a higher ability than average for the class and often require differentiated tasks and opportunities to learn through challenges;
- gifted children are those who have the ability to do well in more than one subject;
- talented children demonstrate an innate talent or skill in creative, cultural or sporting fields.

We have an obligation to plan and deliver well-structured lessons with appropriate assessment plus ambitious targets for pupils who have low levels of prior attainment or come from disadvantaged backgrounds. Also, we have a duty to cater for pupils whose first language is not English by planning teaching opportunities to help them develop their English and to gain full access to the national curriculum.

### **13. Differentiation**

Differentiation is best defined as 'the process by which differences between learners are accommodated so that all students in a group have the best possible chance of learning.' (Geoff Petty)

The main purpose of differentiation is to challenge and raise standards of learning by ensuring that curriculum objectives are accessible to all our children despite their backgrounds or abilities. We see differentiation as a form of integration and not exclusion. Differentiation must reflect the learning objective and can be achieved in a variety of ways either by task, by support or by outcome and should be chosen by fitness for purpose.

We want all children to achieve success, therefore we will ensure they are given differentiated tasks that are matched to their level of attainment so that they can demonstrate successfully what they know, understand and can do. The main feature of effective differentiation is good planning resulting in effective teaching and learning with children making good progress. Also, we expect to see in all classes interested well motivated children responding to challenges, children working productively on task and being aware of their own progression.

### **14. Special Educational Needs and Disabilities**

We want pupils with identified special educational needs and disabilities to have full access to all subjects of the national curriculum with teachers planning lessons that have no barriers to pupils achieving and with appropriate targets relating to the subject.

### **15. Assessment for Learning**

Teachers will:

- carry out continuous assessment;
- use short-term assessments matched to the teaching objectives to adjust their planning;
- make comments in pupils' books related to the teaching objective;
- carry out medium-term assessments to measure progress against key objectives to adjust planning;
- use long-term assessments to help them plan for future academic year;
- inform parents and carers of their child's progress and achievements.

### **16. Monitoring and Review of the Subject**

Monitoring of standards of children's work and the quality of teaching is the responsibility of the subject coordinator supported by the Headteacher.

Standards will be monitored by:

- looking at pupils' work;
- subject observations;
- pupil discussions;
- audit of subjects;
- general curriculum discussions.

### **17. Contribution of the Subject to other Areas of the Curriculum**

Science contributes to many subjects within the primary curriculum and every opportunity is sought to draw scientific experience out of a wide range of activities. This allows children to begin to use and apply scientific skills and knowledge in real contexts.

### **18. Resources**

The school has a full range of resources to support the teaching of this subject throughout all year groups. Resources are upgraded and replenished when the need arises. An annual stock take and audit is undertaken by the subject leader in the summer term in preparation for the next academic year.

### **19. Raising Awareness of this Policy**

We will raise awareness of this policy via:

- School prospectus.
- School website.
- Staff handbook.
- Written communications with home such as weekly newsletters
- Headteacher reports to the governing body.
- Email.
- Annual report to parents.

### **20. Training**

We:

- have in place appropriate training for this policy that is undertaken by a registered training provider that covers:
  - All aspects of this policy
  - National curriculum programmes of study and attainment targets for all subjects
  - Curriculum
  - Teaching and learning
  - Differentiation
  - Assessment
  - Monitoring and Evaluation
  - Special Educational Needs and Disabilities
  - Equal opportunities
  - Inclusion



- ensure the content of all training is correct, delivered well and engages staff as we believe that the more engaging training is, the better the outcomes that we need to measure;

### 21. Equality Impact Assessment

Under the Equality Act 2010 we have a duty not to discriminate against people on the basis of their age, disability, gender, gender identity, pregnancy or maternity, race, religion or belief and sexual orientation. We believe that this policy is in line with the Equality Act 2010 as it is fair, it does not prioritise or disadvantage any pupil and it helps to promote equality at this school.

### 22. Race Disparity Audit

We acknowledge the findings of the Race Disparity Audit that clearly shows how people of different ethnicities are treated across the public services of health, education, employment and the criminal justice system. The educational section of the audit that covers: differences by region; attainment and economic disadvantage; exclusions and abuse; and destinations, has a significant importance for the strategic planning of this school.

### 23. Monitoring the Implementation and Effectiveness of the Policy

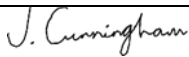

The practical application of this policy will be reviewed annually or when the need arises by the subject lead and the Headteacher.

### 24. Linked Policies

- Assessment
- Curriculum
- Special Educational Needs and Disabilities
- Teaching and Learning

We believe this school policy:

- is an essential part of the school;
- supports staff in managing certain situations;
- forms an important framework that will ensure consistency in applying values and principles throughout the establishment;
- provides guidance, consistency, accountability, efficiency, and clarity on how the school operates;
- provides a roadmap for day-to-day operations;
- ensures compliance with laws and regulations, gives guidance for decision-making.
- stems from the school's vision and objectives.

<b>Headteacher:</b>		J. Cunningham	<b>Date:</b>	January 2025
<b>Chair of Governing Body:</b>		A. Farrow	<b>Date:</b>	January 2025