Science Policy

Rationale

This document is a statement of aims, purposes and guidelines for the teaching of

Science at Buttercup Primary School.

Date	Review Date	Science Curriculum Team Leader
March 2019	**March 2020**	**Shaheda Khanom**

Science stimulates and excites pupils' curiosity about phenomena and events in the world around them. It links ideas and knowledge with direct practical experience and can engage learners at many levels. Scientific method develops and supports inquiry through experimentation and proposition. It develops creativity in thought and analysis in practice At Buttercup we encourage pupils to think deeper into to creations of Allah .

In studying Science, pupils gain understanding about how ideas contribute to scientific change – impacting on industry, business and medicine and improving the quality of life. They learn to question and discuss issues that may affect their own lives, and the future of the world.

Aims and Purposes

The main aims of science at Buttercup Primary School are:

- to help pupils develop scientific knowledge and understanding;
- to help pupils develop investigational skills;
- to develop pupils' questioning and analytical skills;
- to ensure teaching styles and methods in science vary to suit the type of learning and the pupils' differing learning styles and abilities;
- to provide appropriate and sufficient scientific resources for all pupils that will support effective learning and teaching.

Skills/Attitudes

Children are encouraged to develop the skills necessary to:

- plan, hypothesise and predict
- design and carry out investigations
- plan and carry out fair tests
- record findings in a variety of ways
- interpret results and findings
- draw conclusions
- communicate exploratory tasks and experiments
- observe and measure carefully

Children are encouraged to:

- persevere
- reflect critically
- co-operate with others
- be self disciplined
- think independently
- act responsibly

- show sensitivity towards the environment
- ask questions

Curriculum

Science is a core subject of the National Curriculum.
The Buttercup science curriculum is based on the National Curriculum programme and Islamic sciences of study which divides the subject into four attainment targets.
Sc1 Scientific enquiry
Sc2 Life processes and living things
Sc3 Materials and their properties
Sc4 Physical processes

At present progression is developed through a series of science topics based on the QCA/DfE exemplar scheme of work. New programmes of study are currently under draft consultation. A final version will be made available to schools in autumn 2013.This will be statutory from September 2014.

Curriculum Planning

This is organised in three stages:

Long Term Planning
This is based on the National Curriculum for science, which details what is to be taught over the Key Stages and provides the topic basis for planning science activities for each year group. This varies little from year to year, unless there are changes to the National Curriculum. It is monitored regularly and evaluated annually. A copy of the Long Term overview for Science is available in the Science Curriculum Team folder on the school conference

Medium Term Planning
This takes the long term plan and organises the teaching of science into termly or half-termly sections. The planning is more detailed and the objectives are more specific in nature. This planning is developed by the class teachers, who respond to the needs of their pupils. It also ensures a balanced distribution of work is undertaken across each term.

Short Term Planning
Lessons are planned in detail and specific class objectives are set, in accordance with the needs of the pupils. Individual learning goals might also be set for pupils in some lessons.

Teachers collaborate on the planning of science to ensure parity in provision and to share expertise.

Teaching and Learning

The work covered at Key Stage 1 builds on the Early Learning Goal for Knowledge and Understanding of the World for children in the Foundation Stage for pupils aged under five. Pupils in Reception continue to develop their knowledge, understanding and skills through play activities and direct teaching which begin to develop the skills needed for further scientific enquiry .In both key stages, science activities are challenging, motivating and extend pupils' learning. All lessons have clear learning objectives which are shared and reviewed with the pupils.

At all levels science teaching includes:

- practical investigations
- expositional lessons
- co-operative skills
- repeating experiences in different contexts in order that children can transfer scientific understanding.

Teachers use a combination of the following methods in their science work:
- direct experience
- second hand experience e.g. TV, pictures, internet
- books and other published material
- exploratory and investigational activities

Organisation

The teaching of science is organised in a number of ways:
- whole class teaching
- groups: investigative work, discussion
- individual: research, written explanations etc.

Resources

Resources, at present, are stored in the labelled science storage trays at the end of the Upper Key Stage 2 corridor. An inventory of resources is available in the science team folder on the school conference.

Cross Curricular

Links with other subjects are made whenever possible, e.g. use of investigative techniques in geography/maths or communication skills in English.
Use is made of ICT for data handling, information handling, PSHE, etc.

Monitoring and Assessment

All teachers are responsible for monitoring pupil progress in science.

We assess pupils against the end of key stage levels at the end of every term. This is a summative assessment and details what the pupils knows at that moment in time.

More important to the school, however, are the formative assessments, which are informal, continuous and ongoing, and identify the needs of the individual pupils. These are incidental, form part of the classroom activities, and are used to inform the pupil's future learning.

A variety of strategies, including questioning, discussion, concept mapping and marking, is used to assess progress. The information is used to identify the pupils' needs and to inform planning.

Expectations

By the end of Key Stage 1, the performance of the great majority of the pupils should be within the range of levels 1 to 3. Most pupils are expected to achieve level 2.

By the end of Year 4, the performance of the great majority of pupils should be in the range of levels 1 to 4. Most pupils are expected to achieve level 3.

By the end of Key Stage 2, the performance of the great majority of the pupils should be within the range of levels 3 to 5. Most pupils are expected to achieve level 4.

Health and Safety

Sc1 promotes investigation and exploration in science. In their planning of practical activities, teachers need to anticipate likely safety issues. They should also explain the reasons for safety measures and discuss any implications with the children. Children are always encouraged to consider safety when they plan and carry out their investigations - both their own safety and that of others.

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.

This policy has been equality impact assessed and we believe that it 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.

Monitoring and Evaluation of Policy

This policy will be monitored by the Science Curriculum Team and Standards Committee of the Proprietor and reviewed annually.

Linked Policies

▪ Health & Safety	▪ IPC	▪ ICT	

Head teacher:	R. Begum	**Date:**	25th March 2019
Proprietor:	N. Rehman	**Date:**	25th March 2019

Science Policy - Initial Equality Impact Assessment

Policy Title	The aim(s) of this policy	Existing policy (✓)	New/Proposed Policy (✓)	Updated Policy (✓)
Science	To outline the aims, content, and delivery of the curriculum for science which is used throughout the whole school.			✓

This policy affects or is likely to affect the following members of the school community (✓)	Pupils	School Personnel	Parents/carers	Governors	School Volunteers	School Visitors	Wider School Community
	✓						

Question	Equality Groups																								Conclusion	
Does or could this policy have a negative impact on any of the following?	Age			Disability			Gender			Gender identity			Pregnancy or maternity			Race			Religion or belief			Sexual orientation			**Undertake a full EIA if the answer is 'yes' or 'not sure'**	
	Y	N	NS	Y	N	NS	Y	N	NS	Y	N	NS	Y	N	NS	Y	N	NS	Y	N	NS	Y	N	NS	Yes	No
		✓			✓			✓			✓			✓			✓			✓			✓			✓
Does or could this policy help promote equality for any of the following?	Age			Disability			Gender			Gender identity			Pregnancy or maternity			Race			Religion or belief			Sexual orientation			**Undertake a full EIA if the answer is 'no' or 'not sure'**	
	Y	N	NS	Y	N	NS	Y	N	NS	Y	N	NS	Y	N	NS	Y	N	NS	Y	N	NS	Y	N	NS	Yes	No
	✓			✓			✓			✓			✓			✓			✓			✓			✓	
Does data collected from the equality groups have a positive impact on this policy?	Age			Disability			Gender			Gender identity			Pregnancy or maternity			Race			Religion or belief			Sexual orientation			**Undertake a full EIA if the answer is 'no' or 'not sure'**	
	Y	N	NS	Y	N	NS	Y	N	NS	Y	N	NS	Y	N	NS	Y	N	NS	Y	N	NS	Y	N	NS	Yes	No
	✓			✓			✓			✓			✓			✓			✓			✓			✓	

Conclusion	We have come to the conclusion that after undertaking an initial equality impact assessment that a full assessment is not required.

Preliminary EIA completed by	Date	Preliminary EIA approved by	Date
R. Begum	25/03/2019	N. Rehman	25/03/2019