**St John Fisher Catholic Voluntary Academy**

‘Faith, Inspiration, Caring’

# Policy on Science Updated October 2021

At St John Fisher Catholic Voluntary Academy, we strive to follow the example of St John Fisher putting our faith into action in every aspect of school life. We want to help every child achieve their full potential by equipping them with a feeling of self-worth, a respectful attitude towards others, an excitement for learning and an enthusiasm for life. We strive to develop the Gospel values of ‘Faith, Inspiration and Caring’ as we endeavour to develop the talents of every member of our school community.

 **Introduction**

At St John Fisher school, we recognise the importance of Science in everyday life. As one of the core subjects taught in Primary schools, we give the teaching and learning of Science the importance it requires. The Scientific area of learning is concerned with increasing pupils’ knowledge and understanding of our world, and with developing skills associated with Science, encouraging inquiry based learners.

The experience of pupils using Scientific methods of investigation should develop the natural curiosity of the child, encourage respect for living organisms and the physical environment and provide opportunities to developing children’s questioning. The National Curriculum will provide a structure and skill development for the science curriculum taught throughout the school, which is linked into our knowledge based curriculum learning. We endeavour to ensure that the Science

curriculum we provide, will give children the confidence and motivation to continue to further develop their skills into the next stage of education and adulthood.

 **Science Curriculum Intent, Implementation and Impact Overview**

**The intent of our Science Curriculum is to deliver a Science Curriculum which is accessible to all and results in each individual child being able to know more, understand more and remember more.**

**As a result of this, children will develop scientific understanding through the specific disciplines of Biology, Chemistry and Physics. They will** develop an 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. Through this, they will be equipped with the scientific knowledge required to understand the uses and implications of Science, today and for the future. Through effective teaching and learning, children will develop an enthusiasm and enjoyment of scientific learning and discovery.

**The Teaching of Science at St John Fisher**

**Science is taught weekly, with a new topic being taught every half term throughout all the year groups. The topic will include a Quiz at the beginning and end of the topic to assess and adapt lessons to suit the prior learning and current learning of each year group.** Working scientifically is taught throughout each unit of work with ample opportunities for children to use their reading skills in research and their mathematical skills when measuring, recording and analysing data. **Lessons are a mixture of practical and written work and t**eachers use a range of teaching and learning styles, including activities such as investigations, questioning, practical opportunities and outdoor learning.

Children with identified Special Educational Needs and/or Disabilities have access to an aspiring Science Curriculum, which is tailored to their needs. SEND children are provided with reasonable adjustments through their tasks, level of support provided and level of challenge. Advice can be sought from the school SENCO where needed.

In order for pupils to know more, remember more and do more in Science, these aspects must be evident in the implementation of the Science curriculum throughout school. The Science MTP outlines the Knowledge and Working Scientifically Skills as outlined by the National Curriculum objectives.

**The role of the subject leader**

The Science Co-ordinator is responsible for:

* Monitoring the teaching and learning of Science and to ensure that children know more, remember more and understand more about Science.
* Overseeing and implementing the policy.
* Writing an annual action plan for The School Improvement Plan and evaluating progress throughout the year.
* Attending INSET and local Network meetings to provide staff with appropriate feedback.
* Attending regular courses to keep knowledge up to date and feedback to staff upon return.

The school gives core subject leaders non-contact time when necessary, so that they can carry out the necessary duties involved with their role. It is the role of each subject leader to keep up to date with developments in their subject, at both national and local level. They review the way the subject is taught in the school and plan for improvement. This development planning links to whole-school objectives. Each subject leader reviews the curriculum plans for their subject, ensures that there is full coverage of the National Curriculum and that progression is planned.

**Monitoring and review**

Our governing body is responsible for monitoring the way the school curriculum is implemented. Governors review each subject area according to the policy review timetable and meet regularly with subject leaders.

The headteacher is responsible for the day to day organisation of the curriculum. The headteacher and senior staff monitor the plans for all teachers, ensuring that all classes are taught the full requirements of the National Curriculum.

Subject leaders monitor the way their subject is taught throughout the school. They monitor long-term and medium-term planning, and ensure that appropriate teaching strategies are used. Subject leaders also have responsibility for monitoring the way in which resources are stored and managed.

Policy reviewed October 2020

**Appendix 1**

**Covid 19 Catch-up Plans**

To ensure complete coverage of the Science curriculum from the Academic year 2019-2020, we are implementing Science Covid Catch-up plans for the academic years 2020-2021 and 2021-2022 as recommended by the PSQM (Primary Science Quality Mark). This is to ensure that children have not missed out on any key science knowledge teaching. These plans identify the topics that may not have been taught or were taught as part of Home Learning, for each year group and provide teachers with opportunities to assess and teach any gaps in pupil’s knowledge.

The plans have been created in such a way, as to link missed topics with their corresponding topic in a later year group to ensure the progression of knowledge. For example, where a plants topic has not been fully covered in Year 1, this has been planned to be assessed and necessary objectives taught prior to teaching of plants in Year 2. Where it has not been possible to match topics like for like, they have been linked to the closest topic for that Year group.

Teachers have been provided with suggestions on how to assess pupils’ knowledge of objectives from previous years and activities that can be done to teach the objective.

The effectiveness of the catch-up plans will be monitored and reviewed on a termly basis throughout 2020-2021 and 2021-2022 by the Science Subject Leader.

**Appendix 2**

**Teaching Science Safely During Covid-19**

All teaching staff have received training in how best to teach practical science safely during Covid-19 before the start of the Academic year 2020-2021.

The following advice has been recommended by CLEAPPSS and is additional to the advice given on the Risk Assessment from St Thomas Aquinas Academy Trust.

*CLEAPSS believes that hands on science practical work* ***can and, more importantly, should,*** *still happen. It will however require very careful planning…to ensure that pupils and staff stay safe.’*

Teachers and staff have been advised too:

* Avoid going around inside the school building to do practical science for the moment e.g. looking at what different objects are made from. However, it is ok to go outside in your bubble as long as it is from your outside classroom door, children know what is expected of them and where they are going and you adhere to handwashing etc. Pupils/staff should still try to maintain social distancing where possible as per the RA.
* Children should avoid moving around the classroom[[1]](#footnote-1), so teachers need to plan in how equipment etc. is going to used and dispersed amongst pupils.
* Pupils and staff should wash their hands before using any science resources.
* Staff should try and maintain social distancing whilst completing practical science activities.
* Equipment can be shared by pupils in the same bubble. Once equipment has been used it will either need to be **‘cleaned meticulously’\*** by a staff member in that bubble or quarantined for up to 72 hours. CLEAPPSS recommends that any equipment which can’t be cleaned because it may cause damage etc., should be quarantined. A note or sticker should be placed by the resources with a ‘date of use’ and ‘safe to use’ date.
Teachers will need to double check with each other about any resources they may be using when teaching similar topics.
* Teachers will need their own set of equipment to demonstrate and show pupils how to carry out activities themselves, which must be wiped down after use. This must not be borrowed from one of the pupil sets or given to pupils afterwards.
* Good idea to use the visualiser where possible for demonstrations so children can see.
* Given the continued uncertainty around the rate of infection in the general population and the rapidly developing understanding of COVID-19 and its pathology it would be prudent, as a precautionary measure, **not** to attempt the following activities:

· Cheek cell sampling

· Lung volume / capacity & other breathing based activities

· Activities which make use of saliva

· Activities which make use of straws or other equipment for blowing through e.g. blowing through lime water or using a musical instrument which you blow into to create a sound.

1. **\***Meticulous cleaning’ does not mean sterilize. CLEAPSS believes that careful and thorough cleaning which includes the use of an appropriate disinfectant is the intended meaning. This can be achieved in a number of ways

· Immersion in a solution of disinfectant

· Spraying with a disinfectant

· Wiping surfaces with wipes impregnated with disinfectant [↑](#footnote-ref-1)