

Science @ Granby Juniors:

Science at Granby Junior School aims to ensure children:

- See science as an enjoyable experience
- Can work individually and cooperatively, listening to, and valuing, the opinions of others
- Can observe, question, hypothesise, plan, measure, construct a fair test, communicate and draw conclusions based on evidence
- Can use skills from other subjects, such as Maths to represent data, and technology where appropriate to enhance the science curriculum
 - Are observant, curious and caring about our environment
- Can relate science to everyday life and appreciate its contribution both in the present, and historically, to our British values and other cultures
- Appreciate the nature of science and the importance of collecting fact-based evidence



'Golden Nuggets'

We would like our pupils to:

- Plan different types of scientific experiments to answer questions, including recognising and controlling variables where necessary
- Take measurements, using a range of scientific equipment, with increasing accuracy and precision
- Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, and bar and line graphs
- Use test results to make predictions to set up further comparative and fair tests
- Report and present findings from enquiries, including conclusions and explanations of results and possible adaptations to ensure a successful outcome



Content and Sequencing:

A clear and comprehensive scheme of work that is in line with the Key Stage 2 curriculum for science is taught at Granby Junior School. This is sequenced to build on prior knowledge. It distinguished between the disciplines of biology, physics and chemistry so that children are aware in which area their learning sits and can make appropriate links when needed.

Whole class teaching, co-operative group work, paired work and individual work are all utilised as appropriate by teachers to enable children of all abilities to progress. Discussion, research, questioning and practical innovation are central to our philosophy of relating science to everyday life.

Granby Junior School also participates in National Science education initiatives such as National Science week.

Recognising the importance of collaborative working with STEM ambassadors in the community and the development of a STEM afterschool club provides opportunity for children to extend their love of science, in conjunction with the other disciplines of maths, technology and engineering.

Children are encouraged to ask their own questions and be given opportunities to use their scientific skills and research to discover the answers.

Inclusion:

At Granby Junior School, we believe every child can succeed in science. Lessons are carefully planned so that all pupils can access the same ambitious curriculum, with appropriate support and challenge to meet individual needs. Through practical learning, adapted resources and high-quality teaching, every child is encouraged to develop confidence, curiosity and a love of science.

Safeguarding

Consideration for health and safety is considered before a topic is introduced in the classroom.

The curriculum guidelines within each topic are considered with reference to HES Health and Safety guidelines.

Electrical equipment is regularly tested, and PPE precautions are used where necessary.

Support for staff:

Science Lead – Deborah Woodhouse

Teachers are supported through collaborative planning, shared resources and regular professional dialogue to ensure consistency and progression across the science curriculum. Professional development is provided in response to school priorities, and strong links with local Key Stage 3 providers help enrich science teaching and support transition.



Planning

Science is delivered by following a comprehensive and detailed syllabus. This is year specific and outlined in our School Progression Map for science in line with the National Curriculum.

Through our planning, we involve problem solving opportunities that allow children to apply their knowledge and find out answers for themselves.

Planning for science consists of three types: long term plans, medium term plans and short-term plans.

Outdoor Learning:

At Granby Junior school, we are ideally located to utilise the natural environment – both in our school grounds and in the immediate area. A short walk around our local area, Bennerley viaduct, Ilkeston canal and Shipley Park enable our children to explore a range of habitats. We provide an excellent foundation for further learning in KS3.

Progress/Assessment

Science is assessed throughout the year using practical activities, questioning, class discussions and written work.

Lessons begin with a short retrieval activity to revisit prior learning and strengthen children's understanding. Teachers use ongoing assessment to identify misconceptions, celebrate success and plan next steps.

By the end of the year, teachers make an overall judgement based on each child's knowledge, understanding and scientific skills.

This information is shared with parents in the annual school report.

Links to other curriculum areas:

The use of scientific vocabulary is practised through cross curricular writing, displays, word banks and teacher modelling. Similarly, Mathematical skills such as graph work, data handling and measurement are reinforced as an important element in the children's understanding of scientific enquiry. Children have access to key language and meanings, to understand and readily apply this to their written and verbal communications. Design and technology links are also made through cross-curricular work.