



Glebe Guide to Science

Cultural Capital

Staff provide the children an opportunity to investigate and discover the life of a scientist- focus is to show diversity and break down stereotypes in the subject

Science provides the opportunity to study and have awareness of cultures and ideas from across the world.

Skype a Scientist allows children to experience people from across the world. This supports the breaking down of stereotypes within the subject

Pupils experience opportunities to investigate the real world of science through development of skills and knowledge that is transferable to their lives (resilience, determination)

Provide the children with the skills required to question data and make their own judgements- evaluating data for falsehoods

Enrichment

Involvement in annual **British Science Week (March)**

School trips provided for scientific locations- World Museum Liverpool; Jodrell Bank; Think Tank, Birmingham

Glebe Academy engages in **Greenpower Goblin Racing- STEM focus and looks at speed, materials**

Skype a Scientist sessions provided across the academic year

STEM After school club- providing opportunities for PP children to engage in practical STEM tasks.

What we use to support our curriculum delivery?

TAPS Focused Assessments for practical science & assessment of practical science- these are completed once per half term

National Curriculum objectives used to sequence unit content; used to develop sequencing of unit content

Explorify- Odd One Out; investigations; The Big Question used in sessions- lesson warm ups; prior learning check

Intent - The Why

Science is a fundamental part of life for all of our children, families and wider community.

We use aspects of the science curriculum to promote an understanding of what constitutes a healthy and safe lifestyle.

At Glebe, we strive to develop a passion, enthusiasm and enjoyment of scientific learning and discovery.

Through the teaching of practical science, we aim to develop a deep understanding of the nature, processes and methods of Science through different types of enquiries that

Implementation – The How (*including how/when we assess)

Daily

EYFS- Knowledge & Understanding of the World tasks are provided daily as part of **continual provision** with the EYFS classes

Opportunities provided for SODA based around science content- Odd One Out, Zoom in and Zoom Out tasks (when appropriate)

Weekly

1.5 hours, or a complete afternoon assigned to scientific studies per week

A starter/warm up to develop thinking skills or ascertain prior knowledge and understanding: use of questioning from previous weeks/units, odd one out for scientific thinking

Each lesson will develop substantive knowledge (accessed throughout and as starter/recall activities)

Impact – The So What

We engage and enrich the enjoyment of investigation and enquiry

Children develop a depth of understanding of the science curriculum

We engage and inspire the next generation of scientists

We break down the barriers of stereotypes in the science community and promote a diverse world

End of KS2- Met Standard (2023)

<p>enable children to answer scientific questions about the world around them. This helps to strengthen the disciplinary knowledge of the children</p> <p>We provide enquiry-based learning and opportunities for collaborative activities within the classroom and wider school grounds. This supports the development of disciplinary knowledge/understanding</p> <p>We develop scientific substantive knowledge, which is taught to the children, and conceptual understanding through the specific disciplines of Biology, Chemistry and Physics. The substantive knowledge is required to understand the uses and implications of science, today and for the future. This aspect of the curriculum is assessed at the end of each unit of work.</p> <p>We teach the children to use a range of methods to communicate their scientific information and present it in a systematic, scientific manner, including I.C.T., diagrams, graphs and charts.</p>	<p>Practical sessions allow for children to 'be' scientists through develop of disciplinary knowledge</p> <p>Marking and feedback is used after each session to assess the understanding demonstrated within the lesson- marking and feedback is completed in line with school policy</p> <p>Staff assess whether science displays need to be updated as new work is generated, encouraging greater visibility of the subject within classrooms (this is to contain opportunities to break down stereotypes within the subject)</p> <p>Half termly/Termly</p> <p>The children complete an assessment of knowledge based on the completed unit- conducted through questioning or presentation of knowledge from unit</p> <p>Children complete a half termly TAPS practical science investigation/assessment with a focus on either: Plan, Do or Review. These are pre-mapped across the year for each unit. Data gathered at the end of academic year</p> <p>Science displays created and relate to topic taught. These contain science support and examples of work.</p> <p>Children are given the opportunity to study a relevant scientist or opportunity to address stereotypes within the area of study (scientist relates to scientific aspect being taught)</p> <p>Children are provided with the opportunity to complete a Skype a Scientist session- one per term</p> <p>Children have an opportunity to engage in a piece of independent writing with a science link</p>	<p>87% at standard (27/31)</p>
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