

Summary of GSIS Curriculum Intent	Summary of GSIS Science Curriculum Intent
<p>Our pupils come to us from a very wide range of pre-school/nursery and home experiences, with varied self-help skills, motor skills, language skills and cultural capital. In recent months, we have welcomed a significant number of children who are new to English, and to the UK school system, including an increasing number of children who are refugees. The number of children entitled to Pupil Premium funding, has increased from 14% in May 2019, to 25% in May 2022.</p> <p><b>Our Curriculum Intent prioritises the following:</b></p>	<p>Most children come to our school with an innate curiosity in the patterns, details and characteristics of the living and non-living things in and around them. They love using their hands to explore the world around them and they are very keen to share what they have discovered. We aim to foster this awe and wonder about their world and develop their understanding of what Science is. We aim for them to build their scientific knowledge and develop a range of scientific skills, with enthusiasm and delight. We want them to understand that their learning in Science is integral to their learning about the real world all around them and we want them to develop their understanding of how the knowledge they gain in Science, connects with other curriculum areas.</p>
<p><b>Language Development</b></p> <p>We have an exceptionally rich language experience in our school, with some children who are articulate with a wide vocabulary, some skilled bilingual speakers, and others who are very new to English. All children need to develop the language skills and vocabulary, in order to express themselves in school, communicate with their peers and adults and access the curriculum. We give priority to assessing and developing speech and language skills, including the building of a rich vocabulary, with a learning environment that promotes language development and interventions to support children who need additional help.</p>	<p><b>Language Development</b></p> <p>We aim for the children to build their knowledge of specific vocabulary related to the key knowledge for each unit of work in Science. This is outlined in the school science vocabulary progression document and builds from year to year, based on published “PLAN” resources. We also aim for the children to develop their knowledge of key vocabulary linked to working scientifically. This vocabulary is reinforced across the year in different science units and different curriculum areas e.g. Maths and Geography teaching, i.e. in enquiry and data collection activities. Vocabulary is also clearly evident on whole class Science displays, which builds through a topic and supports children to remember and use it.</p>
<p><b>Learning Behaviours</b></p> <p>All children need to have secure self-help skills, leading to them being active learners able to make decisions for themselves and manage their own needs. We structure our curriculum to have a focus on the core learning behaviours of independence, co-operation, inventiveness, resilience and reflection.</p>	<p><b>Learning Behaviours</b></p> <p>Individual Science lessons will incorporate and require individual, paired and/or group work depending on the tasks. Elements of each unit will require the children to often work collaboratively: discussing, exploring, investigating, observing, testing, sharing equipment, taking measurements, collecting data and using secondary sources. We aim for our children to be highly reflective in order to ask questions, answer and reason during science lessons. Teachers will aim to communicate when specific school learning behaviours are needed within these lessons, and particular learning behaviour mascots will be highlighted on medium term plans.</p>
<p><b>Physical Activity</b></p> <p>An active lifestyle can boost good mental health, and can develop the motor skills which will support the children’s recorded work. We ensure that our curriculum and environment enable the development of physical skills, including fine and gross motor skills, core strength, hand and upper body strength.</p>	<p><b>Physical Activity</b></p> <p>As much as possible, we aim to make Science teaching relevant through giving our young children as many opportunities as possible to practically explore real objects and concepts in the real world. They handle materials in and around the school environment, go on walks, using their senses to explore what they can see, hear, smell and touch. They observe how the trees and plants in our school grounds change with the seasons, they explore the micro habitat around the Junior school pond and further afield, they plant and grow beans and they visit habitats such as Kew Gardens and the butterfly house at Golders Hill Park. They conduct practical experiments and conduct fair tests in the playground. Practical exploration makes the learning memorable and helps it to stick, for our Infant children.</p>
<p><b>Cultural Capital</b></p> <p>All children need to have access to the experiences that will enrich their understanding, put their learning in context and reflect their rich and diverse cultural backgrounds. We aim to enrich the cultural capital of our pupils through skilled creative arts teaching and a programme of visits and experiences that enable children to make connections in their learning, reflecting the diversity of our school community.</p>	<p><b>Cultural Capital</b></p> <p>We aim to make Science teaching accessible to and enjoyable for all children. Common misconceptions are outlined on PLAN’s unit overviews so that teachers can anticipate and pre-teach specific core knowledge or concepts that they think children may find tricky. Cross-curricular opportunities are also identified on long and medium term plans in order to ensure that children can make links between Science and other curriculum areas and remember more.</p>

	Visits to school by 'Animal Encounters' and the 'Space Dome', aim to enrich children's learning experiences in Science and make them memorable.
<p><b>Creative Curriculum Design and Progression</b> Our curriculum, based on the Early Years Foundation Stage Curriculum and The National Curriculum for Key Stage 1, provides children with a rich variety of creative, practical and stimulating learning experiences both inside and outside the classroom, enabling each child to access learning appropriate to their age and stage of development. Our children are given strong and creative teaching across the whole curriculum, with catch-up programmes and interventions for those children who need additional help. Topic based thematic links.</p>	<p><b>Creative Curriculum Design and Progression</b> In Key Stage One, PLAN's 'Knowledge Matrices' for each topic support our teachers to plan sequences of science lessons that include the relevant National Curriculum statements for Science. They highlight references to prior learning, future learning, key learning and key vocabulary. We aim to also use PLAN's 'Working Scientifically' matrices to ensure the children are given the opportunity to work scientifically, in different contexts, in Key Stage One. We aim to use examples of work for each topic, provided by PLAN Primary Science, to support us to make summative assessment judgements at the end of each topic. We also use PLAN's 'Knowledge Matrices' for EYFS to teach the foundations of KS1 Science as part of the children's learning in understanding of the world.</p>
<p><b>If you were to walk into a Science lesson at Garden Suburb Infant School you would see:</b></p>	
<ul style="list-style-type: none"> <li>• All children engaged and enthusiastic to gain science knowledge.</li> <li>• Children who can work independently, and are also keen to share and work co-operatively. They take turns and are keen to discuss their knowledge, ideas and findings.</li> <li>• Children using subject specific vocabulary, appropriate to their age and stage of development, with understanding and confidence, in order to talk about different aspects of their work</li> <li>• A focus on enquiry and working scientifically, embedded in relevant lessons.</li> <li>• Teachers demonstrating secure subject knowledge, teaching lessons which are explicitly adapted to be both ambitious and to meet the needs of pupils with Special Educational Needs.</li> <li>• Teachers and support staff presenting information clearly, addressing misconceptions and encouraging appropriate discussion to learn key concepts.</li> <li>• Teachers and support staff helping children embed and use knowledge, not just memorise disconnected facts.</li> <li>• A powerful learning environment, including "working walls", which reflect their learning journey.</li> </ul>	