



**Science**  
Our Helpringham HEART

<b>SCHOOL VALUES</b>	<b>Happy</b>	<b>Equal</b>	<b>Aspirational</b>	<b>Resilient</b>	<b>Team</b>
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**INTENT – We come to school every day to...**

<b>CURRICULUM VISION</b>	<b>Develop our sense of self</b>	<b>Develop our sense of others</b>	<b>Develop our sense of the world</b>
	<ul style="list-style-type: none"> <li>... understand the methods, processes and uses of science</li> <li>...recognise the power of rational explanation ...develop a sense of excitement and curiosity</li> <li>...build up a scientific vocabulary that can be used accurately</li> </ul>	<ul style="list-style-type: none"> <li>...work collaboratively understanding that in science all ideas are valid</li> <li>...engage in class debates challenging the views and ideas of others in a respectful way</li> <li>...be part of a team when undertaking experiments showing all roles are important</li> </ul>	<ul style="list-style-type: none"> <li>...understand how science has changed the world and is vital for our developing world</li> <li>...have a knowledge of historical scientific discoveries and inventions</li> </ul>

**IMPLEMENTATION**

<b>TEN PRINCIPLES FOR EXCELLENT TEACHING</b>	<b>Questioning</b>	<b>High Expectations</b>	<b>Scaffolding</b>	<b>Parent Partnership</b>	<b>Assessment</b>	<b>Use of technology</b>	<b>Inspirational and memorable curriculum</b>	<b>Active Learning</b>	<b>Engaging Learning Environment</b>	<b>Differentiation</b>
	1:1/ class discussion Quizzes Class debates	Use of correct scientific vocabulary. High quality investigations and experiments	Cornerstones National Curriculum Use of scaffolding to help with writing scientific reports	Workshops Links to parents working within a STEM field	End of term/year Children's work Work scrutiny Professional discussions	Use of computers/laptops/tablets for research and investigation BBC documentaries such as 'Planets with Brian Cox'	Projects Visits or virtual visits where appropriate such as Magna or a virtual visit about electricity	Hands on participation in experiments and tests	Displays of children's work Resources	By outcome Level of support Questioning

<b>ORGANISATION OF CURRICULUM</b>	Reading	Writing	Phonics	Maths	Science	History	Geography	Art	DT	Music	PE	Computing	PSHE	RE
	<p>Reading- Comprehension about scientists, discoveries and inventions. Reading non-fiction texts to research key ideas or people for our topics</p> <p>Writing- Creating experiment reports, fact files or biographies about scientists</p> <p>Maths- Measuring and timing in experiments, creating graphs and charts</p> <p>History- Learning about historical Scientific figures and inventions, understanding the development of ideas over time</p> <p>Art- Scientific drawing skills</p> <p>Computing- Using research skills and alternative ways of recording such as using the tablets</p>													

<b>TERMLY FIVE TO THRIVE</b>	High Quality Texts	Memorable Experience	Hands on Learning	Celebration of Children's Work	Community Engagement
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<b>ASSESSMENT</b>	Daily, verbal feedback	Cold Maths	Extended writing pieces	Formative Assessments	Summative Assessments	Termly phonics screening	Multiplication Skills
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**IMPACT – How will we know?**

<b>QUALITY OF EDUCATION</b>	<b>BEHAVIOUR AND ATTITUDES</b>	<b>PERSONAL DEVELOPMENT</b>
<ul style="list-style-type: none"> <li>- High engagement</li> <li>- Children inspired to be independent thinkers, researchers and learners</li> <li>- Knowledge development</li> <li>- Children prepared for the next step of their education, futures and careers</li> </ul>	<ul style="list-style-type: none"> <li>- Engagement in learning</li> <li>- Resilience</li> <li>- Children see challenges as opportunities</li> <li>- Children have pride in themselves and their work</li> <li>- Children are able to take risk and responsibility</li> </ul>	<ul style="list-style-type: none"> <li>- Independence</li> <li>- A Love of learning</li> <li>- Children are able to care for their physical and mental wellbeing in a healthy way</li> <li>- Children are curious, creative and courageous</li> </ul>

**EVALUATION**

<b>REVIEW</b>	<b>High quality outcomes</b>	<b>Innovation</b>	<b>Communication</b>	<b>Developing staff</b>	<b>Improving and changing</b>
	<ul style="list-style-type: none"> <li>- Data</li> <li>- Progress in books</li> <li>- Pupil voice</li> <li>- Parent voice</li> </ul>	<ul style="list-style-type: none"> <li>- Share new ideas</li> <li>- Outward looking</li> <li>- Reactive to learning opportunities</li> </ul>	<ul style="list-style-type: none"> <li>- All parties know what is expected from our curriculum through effective communication</li> <li>- Governors ask challenging questions which teachers and TAs answer confidently</li> </ul>	<ul style="list-style-type: none"> <li>- High quality CPD linked to the school development plan</li> <li>- Sharing of ideas and knowledge</li> <li>- Working with others outside the school</li> </ul>	<ul style="list-style-type: none"> <li>- Review</li> <li>- Reflect</li> <li>- Discuss</li> <li>- Learn</li> </ul>

<b>MONITORING</b>	Class teachers and teaching assistants	Subject Leaders	Headteacher & Governors	Locality Lead & County Council	External partners e.g. OFSTED
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