

## Appendix 3 – STEM Analysis

Forsbrook Primary School

Report to Governors SUMMER 2019



### **Objective 5: To implement and develop a STEM curriculum which provides a multi-disciplinary, applied approach to science, technology and maths**

Priorities	What we did
<ul style="list-style-type: none"> <li>To increase the appreciation of the importance of STEM skills</li> <li>Increase the awareness of the importance and relevance of science to society</li> </ul>	<ul style="list-style-type: none"> <li>Mr Harrison has led the Green Goblin car project, running an after school club with a group of Year 6 pupils. These pupils will be entering the annual event in July this year.</li> <li>The Royal Academy funded year-long project partnership enabling Year 6 pupils to progress their computer science knowledge and skills using educational robots. Students have been supported in devising practical investigations, discovering information about a hostile environment such as Mars. Pupils used both BBC Microbits and Lego We:do kits.</li> <li>Six Year 6 pupils and Mrs Lockett will be attending Computer Science in Schools Conference at Staffordshire University to share their work with other professionals in the local area.</li> <li>All pupils in Year 3 entered the Lego First League, working in teams of six to do the following: <ul style="list-style-type: none"> <li>Research challenges facing today's scientists</li> <li>Design, build, test and program robots using LEGO® MINDSTORMS® technology</li> <li>Apply real-world math and science concepts</li> <li>Learn critical thinking, team-building, and presentation skills</li> <li>Participate in tournaments and celebrations</li> </ul> </li> <li>Year 6 attended the Big Bang Fair at the NEC in Birmingham, an award-winning combination of exciting theatre shows, interactive workshops and exhibits and careers information from STEM professionals..</li> </ul>
Outcomes	Evidence
<ul style="list-style-type: none"> <li>Years 3 and 6 have had opportunities to develop their engineering skills through the projects they have been involved in.</li> <li>As a result of applying for the grant, we now have Lego:wedo kits that can be used in all year groups for students to engage in STEM projects</li> <li>Strengthened links with STEM ambassadors through working collaboratively.</li> </ul>	<p>Mrs Moulton has seen a positive impact in her classroom: <i>“The Lego First League project highlights which pupils are resilient and good independent problem solvers. Pupils who are naturally good leaders have stepped up in each group and it is evident which children are able to work well within a team and which struggle to communicate well with their peers. This has helped myself, as the teacher target these children in later lessons to help build on these life skills.</i></p> <p><i>The SEN children have worked exceptionally well with their groups. The project really supports their communication skills with their peers. By working as the engineer, they had to rely clear instructions to the builder, by acting as the building they had to listen carefully to instructions given and by being the resource manager they had to locate based on information given. These are all skills that my SEN children already have interventions for and IEP targets towards, so this helped support them well.</i></p> <p><i>Overall my children now have a better understanding of their strengths and weaknesses when problem solving and working as a group. Many of the sessions ask the children to state and record what talents they will bring to the team and why these are important to the task set. This has helped them to build confidence and equipped them with some of the skills they need in a changing workforce.”</i></p> <p><i>“We had a great day at the Big Bang Fair. I loved the science shows and taking part in the hands on science activities. I'd like a job in science when I'm older.” (Year 6 pupil)</i></p>
Next Steps	<ul style="list-style-type: none"> <li>To plan opportunities to use the Lego We:do to make support the teaching of engineering, design and science across the curriculum.</li> <li>Train staff to use the resources.</li> </ul>