Science Curriculum
Intent, Implementation and Impact

<table>
<tr><td>Intent</td><td colspan="4">At Pear Tree our science curriculum intends to meet the individual learning needs of each pupil. Through the creative curriculum we aim to excite and inspire our pupils to learn and engage in lessons and make progress towards their personalised targets. We aim to help pupils to understand the world around them, become functional in their immediate and wider environment and foster curious and inquisitive learners who are able to problem solve concepts using their knowledge and understanding. At Pear Tree School the skills that pupils acquire during science lessons are integrated in all areas of the curriculum to ensure pupils develop the necessary skills to prepare them for the next stage in their learning journey and are able to apply skills and knowledge in different contexts.</td></tr>
<tr><td rowspan="3">Implementation</td><td colspan="4">The science curriculum is designed to ensure that every learner will gain the skills and knowledge to enable them to successfully prepare for and transition into each phase of their education and ultimately into adulthood. A creative curriculum theme is used to add interest and excitement and develop cultural capital and expand experiences. One half term a year there is a STEM based creative curriculum theme that focusses on famous scientists and developments in the scientific world. A week of activities and an Inspiration day introduces the theme with teachers integrating the theme in their lesson plans throughout the half term finishing in an exciting end day with an assembly and activities linked to the theme.
In KS 1 and 2 science is delivered in one week blocks per half term. This means that pupils in KS 1 and 2 will receive 10 hours of science lessons each half term. In KS 3 and 4 science is taught for one hour weekly. This means that pupils in KS3 and 4 will receive between 6 and 8 hours of science lessons each term.</td></tr>
<tr><td>Planning and Teaching</td><td>Assessment</td><td>Cultural Capital</td><td>Personal Development</td></tr>
<tr><td>Teachers plan and deliver exciting, engaging and well differentiated lessons for all pupils. Lessons are planned in sequence to build on prior knowledge and skills. Teachers will scaffold lessons to support the development of relationships and early communication skills leading to pupils learning how to work as scientifically as possible. Highly skilled TAs support pupil learning and are deployed to model and support pupils to develop independence in application of knowledge and skills. All planning takes into account our pre-formal, semi-formal and formal learners and personalised targets are set for each lesson. Attention Autism</td><td>Robust target setting, assessment and analysis is embedded throughout the curriculum and across the key stages to ensure the science curriculum is effective in meeting learning need and ensuring pupils are making at least expected progress.
A range of assessment tools are used to monitor progress using the Routes for Learning linked to the Engagement Scale or PIVATs assessment tools. Progress towards the outcomes of the EHCP are carefully monitored using Evidence for Learning.</td><td>Cultural Capital in science is a broad and diverse concept, which includes a wide range of knowledge, experiences, attitudes, behaviours and practices.
Key dimensions of Cultural Capital in science are:
Developing scientific literacy and science related attitudes linked to enquiry skills.
Develop the ability to transfer skills learned in science including predicting, observing, problem solving and questioning.
Take part in science activities outside of school.</td><td>Predicting
Observing over time
Pattern seeking
Research
Fair testing
Teamwork
Independence
Growth mind-set
Resilience
Problem solving
Communication
Love of learning
Questioning</td></tr>
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	can be used to support learners understanding for all pathways.			
Impact	At Pear Tree our students will have gained the skills and knowledge needed to prepare them for the next phase of their education and ensure they are prepared for their adult life. They are able to apply the engagement and communication skills and scientific knowledge they have learnt in real life contexts that are relevant and important to them in their learning journey. This is evidenced through observation, assessments and recorded through Evidence for Learning.			
	Evidence in skills Pupils have acquired key skills in science in order for them to progress along their learning pathway. They have developed age appropriate skills which can be built upon through each phase of their education and can apply them in wider contexts.	**Evidence in knowledge** Children have gained knowledge and are able to use it appropriately and within context. Learners can use their knowledge in a variety of situations and draw on it to solve problems and overcome challenges.	**Breadth and Depth** Teachers plan opportunities for pupils to deepen their understanding in scientific enquiry, living things, materials and their properties and physical processes and cross curricular curriculum. Pupils have the confidence and are inspired to further their knowledge by displaying positive learning attitudes.	**Pupil Voice and attitude** Through discussion, annual reviews, evidence for learning and observation children are enthusiastic about their learning experiences and show a genuine curiosity and interest in science activities and investigations through: Exploration of their immediate environment and surroundings and being active communicators of wants, needs, likes and dislikes. Engaging with a range of scientific concepts by actively joining in with investigations and answering scientific questions. Beginning to develop and use language to describe phenomena and the world around them in simple terms.