

Science

Intent

Curiosity and exploration form the centre of our science curriculum at Ashford Hill. We aim for our children to develop an understanding of the world in which we live through gaining knowledge and engaging in purposeful practical science work. Through building up a body of key foundational knowledge and concepts, carefully planned and sequenced within our curriculum, we aim to support our children to recognise the power of rational explanation and develop a sense of excitement about the world and natural phenomena.

Our vision is that our children will leave our school with the scientific knowledge and skills of enquiry (explain, predict and analyse) to allow them to be able to explore, enjoy and enquire about the implications of science through their next stage of education and beyond.



Implementation

Curriculum Design:

Our curriculum is designed with a strong emphasis on acquiring and building knowledge. From Year R our children begin to develop an understanding of their world around them through their work around plants, animals, the seasons and a learning rich environment within their continuous provision to spark their curiosity about how things work. As they move through to key stage one and two, this knowledge is built upon as they further discover more about plants and animals, earth and space; forces and magnetism; variation and evolution; materials and light and sound. Each time that they revisit a scientific concept, they build their knowledge to secure a deeper understanding of our world.

Due to mixed age year groups are children are taught by stage rather than age, this means that we have carefully crafted and adapted our curriculum (built from the foundations of the Cornerstones Curriculum) into two cycles to ensure that each area of the science programmes of study are revisited at the optimal and appropriate time for our children.





Working Scientifically:

Working scientifically is embedded throughout our science curriculum. We believe that children learn through experiences so where possible our children will conduct experiments and strive to behave and think like scientists as they learn to predict, hypothesise, observe and investigate how different variables affect the outcome of their experiments and findings. They learn to record their findings and spot patterns that lead them to pull their knowledge and data together to provide strong conclusions.

Environment:

We have extensive grounds within our school which enable us to take children outside and explore our established pond, conduct bug hunts in the grass and under rocks and logs and grow plants within our allotment areas. We use our grounds to bring scientific knowledge and concepts to life.





Enrichment:

Our science curriculum is further enhanced by planned educational visits. We visit Minstead Study centre, Winchester Science Museum and Marwell Zoo over our children's time at Ashford Hill.

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We assess the success of our children and curriculum design by discussing the work with our children, looking at the work and marking against the learning objective, observing our children carrying out practical tasks, Children's self-evaluation of their work and implementing low stakes informal testing where appropriate.





We monitor our children's progress by looking at the children's books, listening to their voice and assessing against the key knowledge required for each learning journey. We plan for further development based upon what we have observed.

At the end of Foundation stage, the children are assessed against the progress descriptors in their Foundation Stage Profile. At the end of KS1 and 2, the children are assessed using teacher assessments/judgement which is also informed by end of unit assessments.