










Curriculum Rationale

Through our science curriculum, children at Thurcroft Junior Academy will explore the world around them. They will learn about how the physical and natural world works, what its components are, and how the world got to be the way it is. Children learn by asking questions arising from their natural curiosity and knowledge of the world around them thus science at TJA is exciting, engaging and challenging. Children seek to find answers from our enquiry-based curriculum through experiments and investigations. In doing so, they enhance their capacity for scientific reasoning, knowledge and vocabulary. We aim to give all children a strong understanding of the uses and implications of science today, inspire them in STEM and fully prepare them for KS3.

INTENT		IMPLEMENTATION		IMPACT	
 Alignment to the NC	<p>Within our academy we follow the National Curriculum as this ensures that there is clear progression and cohesion throughout the year groups. We base this to form our ACET SoW which is aligned with the NC for science.</p>	 Pedagogical Approaches	<p>Within our academy, we strive to make science as practical as possible as we believe this is where children build schema and the learning 'sticks'. The lessons are designed to ensure pace but to check prior learning and address misconceptions.</p>	 Approach to Assessment	<p>Formative assessment is also used throughout lessons to give children instant feedback on their work.</p> <p>We promote small group learning alongside independent tasks. We try to challenge all students by 'challenge next step' activities.</p>
 End Points	<p>There is always an end point at the end of each unit of work building on prior knowledge. The SoW clearly states the end point for each unit and how this links to the NC objectives.</p> <p>Children can demonstrate their knowledge through different ways, verbally, double page spread, investigation activity etc.</p>	 Teachers' Expert Knowledge	<p>All teachers within the academy are trained to work with the ACET planning. CPD and staff training is available if teachers require it to build on their knowledge.</p> <p>Teacher can access support to build on their subject knowledge through the TJA Science lead, Science leads from the Trust, the Trust science and STEM lead and linking with the secondary schools.</p>	 Performance Data	<p>Parents and carers receive a summary of their achievements throughout our geography curriculum at the end of the academic year.</p>
 Sequencing	<p>The ACET curriculum enables children to build on their knowledge each year right the way from Year 3 up to Year 6. Each year, children build on their prior knowledge to dig deeper into their learning in order to gain a more in-depth understanding of key concepts and ideas.</p> <p>The enquiry-based approach will help children develop and progress from 'small steps' to the /bigger ideas' of science during their journey with us.</p>	 Promoting Discussion & Understanding	<p>Discussion is promoted throughout teacher input in order for children to build on each other's existing knowledge.</p> <p>We are focusing on vocabulary and children having a greater understanding of key subject specific terms.</p> <p>Through the investigations children are discussing their findings and building on their understanding. By delivering a practical enquiry based lesson we try to promote a range of ways of recording methods. Children are encouraged to talk through their learning in order to deepen their understanding.</p>	 Pupils' Work	<p>Within our academy, our science work is recorded in a variety of ways.</p> <p>When children complete practical/investigations, photographs are often taken of their work in order for children to reflect back on their work.</p> <p>We use tablets for research activities alongside drawing, writing work.</p> <p>At Thurcroft Junior Academy, we have high expectations of our students, including with the quality of their work as well as their presentation, therefore we ensure the same quality of work across all areas of the curriculum.</p>



Addressing Social Disadvantage

Within our academy, we believe every child can engage and achieve within every subject. With clear scaffolding and high-quality teaching, all children are able to access our geography curriculum.

Pre-teaching and over-teaching may be required in order for some children to achieve, this being said we ensure that the curriculum is fully inclusive.

We subsidise activities, workshops/trips to help support our families.



Knowing More & Remembering More

Within our academy, we always recap previous learning to check children’s understanding and start lessons by revisiting previous learning or misconceptions we have identified.

Each year, the curriculum builds on previous learning. We ensure KS1 concepts are mastered before starting the KS2 learning in Y3.



Pupil Voice

At Thurcroft Junior Academy, we are regularly gaining feedback from our children to find out their opinions on our curriculum. Staff members work closely with the pupils to constantly be improving our curriculum to gauge children’s interests in order to consistently gain a high level of engagement.



Local Context

Through the provision of an exciting, engaging curriculum and using a range of recording methods, children are encouraged to develop a lifelong love of science.

We are very lucky to have wonderful grounds with a range of plant and animal life to explore. We use our school environment which includes, field, grassland and a pond to support our learning where appropriate.



Teacher Assessment

The end points for each science unit are a powerful method of assessment – misconceptions can then be addressed through our flashback 5 slides.

Teachers are constantly observing children and ensuring they have opportunity to demonstrate the range of working scientifically skills through a variety of ways.