Tillington Manor Primary School

Curriculum Intent - Subject Statement

Subject: Science

Aspect of Curriculum Intent Statement for TMPS	Subject Practice
Intent	
• What are the key concepts/skills children will learn in science?	 Children will develop their knowledge, understanding and skills in relation to: Questioning Investigating Testing Explaining and modelling Measuring and data handling Recalling and explaining the facts learned.
• How has learning been organised across the school to ensure	
continuity and progression?	• Strands of learning from the NC programme of study have been sub-divided in to key skills and concepts which have been progressively sequenced from EYFS to Y6.
Key skills development:	
 Reading Writing Mathematics Thinking/Problem-solving skills 	 Learning in science will support, but not be subsumed, by our key priority to develop: children's ability to read with understanding and to present a range of information in written form coherently and with appropriate grammatical accuracy children's capacity to apply numerical concepts children's thinking skills, encouraging their ability to develop ideas for themselves and to respond to and devise questions in enquiry based situations
How will learning in science prepare children for life in the	
 Century? Diversity understanding SMSC In what ways will resilience and independence in learning be 	 Children will encounter topics in science which: introduce them to the "big ideas" that underpin our understanding of the world around us. allow them to appreciate the wonder and beauty of man's achievements and the natural environment
fostered?	 The emphasis in science on enquiry, places a key responsibility on children to learn through research and investigation. Children will be encouraged to: find solutions using a range of strategies complete an expected minimum of work within a set amount of time using resources appropriately matched to their independent ability level work collaboratively

Subject: Science

Aspects of Curriculum Intent Statement for TMPS	Subject Practice	
Implementation		
 What are the key learning/teaching strategies staff should employ in science to promote high standards? Strategies specific to subject Strategies to encourage mastery through: The encouragement of oracy and vocabulary development 	 Key strategies to encourage high quality learning will include: Enquiry based approaches using a range of investigative strategies (pattern seeking, sorting and classifying, observing closely, observing over time, research, testing) Presentation of findings in different mediums A major focus on interaction and discussion as a key learning tool - allowing children to share ideas and compare findings and points of view - introducing and allowing opportunities for vocabulary to be introduced and reviewed 	
 Reading/comprehension skill development 	 Information will be presented using appropriate sentence structure and reflecting the skills/concepts expected for ARE writing in the year group. Genre will include: 	
 Writing and GPS 	 Note taking Report writing, to include explanations → increasing emphasis on children developing/backing up ideas and using scientific vocabulary accurately 	
 Mathematics 	 presentations Opportunities to reinforce/apply basic measurement, calculation and data handling skills to 	
 Thinking/Problem-solving 	 record and interpret information. Children responding to a range of questions and tasks to encourage them to analyse and evaluate information they encounter, to draw conclusions, develop ideas and to present 	
• What additional experiences should children have in science to enrich their learning?	 coherent arguments drawing on a range of information Children will develop their kn/und through additional enrichment experiences which will include: visits; workshops; themed events relating to significant national events; visitors to give first- 	
 How will new learning be linked to children's previous learning and experiences? 	 hand account or expert opinions Children achieve the best outcomes when new learning is linked to previous experiences/learning. This 	
Start of topicStart of lesson	can be achieved by routinely establishing: o What children already know through an exploratory question/challenge at the start of a topic –	
 Strategies to promote long-term memory 	 this allows learning to be tailored to needs/gaps and challenge to be built in. Learning in any one lesson is never in isolation - opportunities for children to use/apply what they already know through problem-solving, reasoning helps to establish long-term memory and an expectation that 	
 How will staff ensure that they present a consistent challenge in science? 	 children will need to recall Challenge and standards will be consistent when all learning in science focuses on the key skills identified within the NC strands and there is an expectation that: Children will be expected to ask questions and seek answers, through practical investigation, 	
 Strategies to promote involvement of children in our target arouns: 	testing and research, to build their understanding.	
o Boys o PP o SEND	 Finding approaches to content that engages children's interests - establishing/using links Organising tasks to allow progressive build-up of knowledge/skills Low entry/high threshold Adjustment 	
	 Pre-teaching to compensate for variable life-experiences 	

Subjec	t: S	cience
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Aspects of Curriculum Intent Statement for TMPS	Subject Practice	
	(How the curriculum intent will be achieved)	
Impact		
 How will we know children have achieved high quality outcomes and that learning is embedded? 	 Children, in line with the progression map for geography will: Demonstrate their ability to use the key skills of working scientifically (questioning, investigating, testing, explaining/modelling and measuring/data handling) Demonstrate their knowledge and understanding of: Curriculum content The work of some real scientists Use and apply their knowledge and understanding from one topic area to another Present their findings using a range of mediums Use scientific vocabulary with accuracy and confidence 	
 How will learning prepare children for different challenges and situations they will face, including tests? 	 Children will be resilient and not be put-off when facing new challenges/content tackle un-prepared learning situations, demonstrating standards expected in core subjects as well as in the subject-specific topic work with independence in a range of situations 	
 How will we know that children are developing in their understanding of SMSC/diversity etc.? 	 Children will demonstrate: respect and tolerance when facing a range of new ideas and content share with others respect for the achievements of scientists (male and female) from different cultures. 	

Aspects of Curriculum Intent Statement for TMPS	Subject Practice
Evaluation	
• How will we monitor standards?	 Standards will be monitored by subject leads/SMT through: discussion of their learning with children scrutiny of books and outcomes - assessing match with standards expected for year groups scrutiny of subject records observation of practice
• What will we do with information from monitoring?	 Results from monitoring will be used to evaluate: the effectiveness of subject plans and contribute to subject planning development the effectiveness of practice and to inform staff development needs whole school learning/teaching strategies and developments required → SIP