

This term we are *working as scientists*

I can pose questions	I can carry out research	I can identify and classify	I can record observations over time	I can plan and carry our fair and comparative tests	I can report my findings using scientific language
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Essential Question: How much longer can we live like this?

<p>Project launch (2 days)</p> <ul style="list-style-type: none"> • What is science? • What is a scientist? • Carousel of science activities and experiments as children explore the <i>working as scientists' skills</i> (above) • Exploring the essential questions 	<p>Main teaching phase (6 weeks)</p> <ul style="list-style-type: none"> • States of matter • Renewable and non-renewable resources • Types of materials (properties and characteristics) • Changing states including reversible and non-reversible changes • Categorising materials by longevity • Is all plastic bad? • Waste and recycling • Consumption over time • Changing habits for a more sustainable future 	<p>Trips, visits and workshops support the precision phase</p> <ul style="list-style-type: none"> • Beach clean with CEFAS 	<p>Project phase (3 weeks)</p> <ul style="list-style-type: none"> • Working collaboratively in small teams, children agree an 'essential question' with their class teacher. The EQ will drive their science investigation • Children work independently to complete their science investigation and prepare for presentation day which takes place during the science fair
<p>Pupil outcomes</p> <ul style="list-style-type: none"> • The format of the outcome is agreed with the class teacher (it could be presented on a trifold board for example), but it must include an oral presentation with planned contributions from all team members 	<p>Public exhibition</p> <ul style="list-style-type: none"> • The science fair will take place on the 4th and 5th December • 4th December will be presentation day with children presenting their science investigations to their peers • 5th December will be festival day with a launch assembly from Dr Ken Farquhar and a programme of workshops, demonstrations and a Q&A with a panel of scientists. The second day will also include the parent showcase 	<p>Experts and authentic audiences</p> <ul style="list-style-type: none"> • Kinetic Science • Dr Ken Farquhar • ICT Solutions • Bugman • Mad Science • CEFAS • Anglian Water • Floranova • John Innes Centre • Norfolk Wildlife Trust • Science and storytelling 	<p>Community legacy</p> <ul style="list-style-type: none"> • New from Autumn 2020

<p style="text-align: center;">Reading</p> <p>Fiction</p> <ul style="list-style-type: none"> • The Promise by Laura Carlin • The journey of a Plastic duck <p>Non-Fiction</p> <ul style="list-style-type: none"> • A selection of books and other reading material supporting the <i>working as scientists</i> theme including States of Matter, and Plastic - Past, Present and Future 	<p style="text-align: center;">Writing</p> <p>Autumn 1</p> <ul style="list-style-type: none"> • Poster to provide information • Narrative to entertain • Explanation text - how plastic is made <p>Autumn 2</p> <ul style="list-style-type: none"> • Scientific write-up for science fair projects 	<p style="text-align: center;">Oracy</p> <ul style="list-style-type: none"> • Physical – voice and body language • Linguistic – Vocabulary, language • Cognitive – content and structure of talk, seeking information and clarification through questions • Social and emotional – working with others, listening and responding, audience awareness 	<p style="text-align: center;">Grammar, punctuation, spelling</p> <ul style="list-style-type: none"> • Debating skills • linking ideas for cohesion • informative language - how to present information • expanded noun phrases • multi-clause sentences • using grammar and vocabulary to enhance meaning • using modal verbs to recommend and assert • using embedded phrases for succinctness • Using adverbial phrases to link events according to chronology and cause
<p style="text-align: center;">Maths</p> <ul style="list-style-type: none"> • Week of inspirational maths • Number: place value and algebra • Number: calculations • Measurement: perimeter, area, volume • Number: proportionality • Number: place value and algebra • Geometry • Consolidation 	<p style="text-align: center;">Homesteading</p> <p>Gardening and growing</p> <ul style="list-style-type: none"> • Preparing the new vegetable beds for planting (front of school) and the new wild area by the pond <p>Animal care</p> <ul style="list-style-type: none"> • promoting biodiversity across the site <p>Cooking</p> <ul style="list-style-type: none"> • Preparing a range of savoury dishes using seasonal produce where possible 	<p style="text-align: center;">Philosophy</p> <p style="text-align: center;">Starting in April 2020</p> <p style="text-align: center;">What's in the news?</p> <p style="text-align: center;">Weekly discussion on the big issues in the news</p>	<p style="text-align: center;">Thrive</p> <p>All children have three 30-minute whole class Thrive sessions each week. The sessions are age-appropriate and activities are set based on the teacher's knowledge of the children. The aim of the sessions is to enable children <i>over time</i> to develop happy, healthy and safe relationships</p>
<p style="text-align: center;">Music</p> <p>60-minute singing and general musicianship lesson with Sistema (whole class on Thursday)</p> <p style="text-align: center;">Optional music opportunities</p> <ul style="list-style-type: none"> • Sistema orchestra (1.5 hours after school on Tuesday and Friday weekly) • Bandwagon (Thursday mornings) 	<p style="text-align: center;">Sex & relationships education (SRE)</p> <p>Puberty, relationships and reproduction</p> <p>Lesson 1</p> <ul style="list-style-type: none"> • Describe how and why the body changes during puberty in preparation for reproduction 	<p style="text-align: center;">Physical Education</p> <p>60 minutes of high quality physical education each week</p> <p>Autumn term:</p> <ul style="list-style-type: none"> • Net and wall games (tennis and Ping Pong) • Invasion games (football - team games) 	<p style="text-align: center;">Forest Schools</p> <p style="text-align: center;">60 minutes of outdoor learning each week</p> <p>Autumn term</p> <ul style="list-style-type: none"> • Working safely in the tree circle • Understanding biodiversity • Building animal homes to promote biodiversity • Developing a wild area • Working safely with tools • Den and shelter building • natural arts and crafts

<p style="text-align: center;">Art and design</p> <p>Children engage in a range of art activities. Some of these form part of early morning work and some relate to the REAL project of <i>working as scientists</i>.</p>	<p style="text-align: center;">Computing</p> <p>Children use computers for a range of research and presentational activities in support of their independent and team projects.</p> <p style="text-align: center;">Internet safety</p> <p>Children explore how to stay safe online during their year team circle.</p>	<p style="text-align: center;">Modern Primary Languages</p> <p>Each class will have 30 minutes of Rigolo Primary French teaching each week</p>	<p style="text-align: center;">Homework</p> <p>We don't set homework, but do expect children to read daily and to record this in their Reading Record.</p> <p>Opportunities to follow-up REAL learning from class will be explored with individuals and activities will be self-set. These may or may not link directly to the Pupil Outcome</p>
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