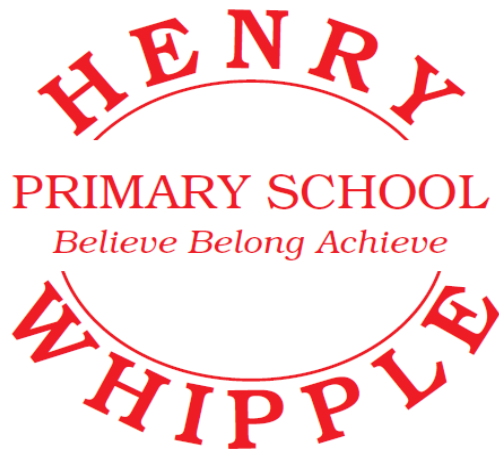
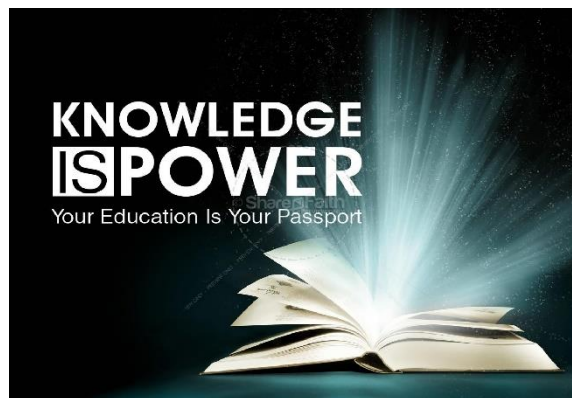


Henry Whipple Primary School



SCIENCE



1	<i>Intent / Implementation / Impact Subject area statement</i>
2	<i>Curriculum subject on a page overview</i>

1	<i>Intent / Implementation / Impact Subject area statement</i>
---	--



INTENT: (vision)

At Henry Whipple we...

Develop **scientific knowledge and conceptual understanding** through the specific disciplines of biology, chemistry and physics

Develop understanding of the **nature, processes and methods of science** through different types of science enquiries that help them to answer scientific questions about the world around them

Are equipped with the scientific knowledge required to understand the **uses and implications** of science, today and for the future

- ❖ We provide a high quality, deep knowledge-rich curriculum that allows our pupils to make connections between the world and its people across subject areas.
- ❖ We provide teaching that enables pupils to make purposeful links with vocabulary from their topic of study, applying this within their learning across different subjects.
- ❖ We build upon our pupils' curiosities about specific teaching topics which deepen previous learning.
- ❖ We use quality and well-regarded planning (PLAN knowledge matrices) and assessment materials (TAPS) to ensure the breadth and depth of the curriculum is of a high standard and up to date.
- ❖ We provide carefully planned enrichments including 'Learning Away' that ensures there is measurable impact on children's outcomes, including their behaviour, safety and SMSC development.
- ❖ We make links to other areas of the curriculum to develop Science as part of a wider knowledge and understanding of STEM subjects.
- ❖ We celebrate positive attitudes and learning behaviours, which are deep-rooted in our approach. This encompasses the key skills of communication, problem solving, team work, reflecting & reviewing, participating effectively, investigating and self-managing & independence (all key elements of our whole-school Learning Wheel)

IMPLEMENTATION: (how)

Our curriculum vision is translated into practice by...

School Curriculum

The programmes of study for science are set out year-by-year for Key Stages 1 and 2. We are however, only required to teach the relevant programme of study by the end of the key stage. Within each key stage, school has the flexibility to introduce content earlier or later than set out in the programme of study and may introduce key stage content during an earlier key stage if appropriate.

Teachers will base their planning on the programmes of study for their relevant year groups.

- ❖ Completing 'What If?' activities to engage children in the learning area, and ask questions in a scientific manner. Therefore, learning opportunities can be maximised closely matched to pupils' needs and interests.
- ❖ Planning learning sequences which are closely matched to selected vocabulary that will be taught within each topic area so that vocabulary can be built upon meaningfully and retained in long-term memory.
- ❖ Regularly reviewing pupil knowledge for topic areas taught through self-regulated learning approaches including knowledge-quizzing and knowledge showcases, whereby pupils half-termly revisit and recall their learnt knowledge.
- ❖ Tracking learning against core year-group specific objectives termly using SIMs data input for the wider curriculum to identify progress made and analysis of any arising gaps in knowledge including whole-school areas for development.
- ❖ Maintaining a broad and balanced curriculum teaching approach in our coverage, meeting individual needs and promoting our 'Believe, Belong, Achieve' philosophy.
- ❖ Promoting high aspirations through outreach links with organisations such as the University of Nottingham and wider external providers for specialist teaching in languages, PE and the arts to enhance our teaching delivery.
- ❖ Involving the wider community with learning through targeted Learning Together events, sharing expectations and curriculum coverage with all parents/carers, including themed weeks across the school year.
- ❖ Building long-lasting memory of core concepts and knowledge through use of Graphic Organisers and our Learning Toolkit as an approach to teaching and learning for all pupils.
- ❖ Broadening cultural capital and social equity for our pupils through our Learning Away and enrichment programme so that pupils' experience a wide ranging breadth of opportunities throughout their learning at HWP.

IMPACT

We know our curriculum works for our pupils through...

- ❖ Tracking of progress against core year group expectations: with the expectation that all pupils achieve expected standards for their specific year group objectives.
- ❖ Pupil voice impact showing evidence of the positive impact and use our Knowledge Organisers and Graphic Organisers to improve and deepen their knowledge and understanding.

- ❖ Parent voice impact showing the increased response, awareness and support of our knowledge-based curriculum approach.
- ❖ Evidence of pupils applying taught knowledge and vocabulary within core subject teaching; independently making connections and links across learning.
- ❖ Increased attendance and support for our Learning Together events which identifies parent agreement with our curriculum vision and knowledge-based outlook.

2

Curriculum on a page overview



CURRICULUM TEACHING AT HENRY WHIPPLE: SCIENCE



<i>At Henry Whipple Primary, we value Science as a core subject in the curriculum.</i> <i>We are committed to providing a curriculum that works together with our ethos of 'Believe, Belong, Achieve' and the concept that 'Knowledge is Power.'</i>			
Aims <u>Children:</u> • Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics. • Develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them. • Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.			
<u>Curiosity</u> Children are encouraged to be curious about the world around them and how this fits into the subject. We complete a 'Curiosity Challenge' regularly to develop questions 'a scientist would use'	<u>Vocabulary</u> Precise scientific vocabulary is introduced and built upon during lessons. Teachers and children use the appropriate vocabulary to embed knowledge.	<u>Knowledge retrieval</u> Pupils revisit key concepts and important lesson content through regular quizzing so that learning is embedded within long-term memory. Low-stakes quizzing is used to assess gaps in understanding and to inform sequences of learning so all pupils achieve in wider curriculum areas.	<u>Investigations</u> Pupils plan, prepare and at least one 'hands-on' investigation each half term that allows them to develop subject knowledge as well as working scientifically according to year group expectations. Here, children learn to measure, record and make predictions accurately.