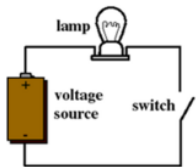


Developing Science

We have been working on developing our science curriculum for two years now and led by Miss Hamilton and Miss Blake, we have made a lot of changes, such as:

- Adding more 'wow' moments and making science more engaging.
- Making sure that science learning is carefully planned and the development of knowledge and skills is carefully sequenced through the school.
- Ensuring that all children are appropriately challenged, to move their learning on in science.
- Ensuring that the learning in each lesson is linked to a real life example / application
- Linking science learning to 'big ideas' in science and/or to the work of famous scientists in the past.
- Improving the way we teach investigatory science and science skills, such as helping children to understand what a 'fair test' is
- Making a better use of display to celebrate children's work and support learning in science.
- Auditing our resources and with the PTAs help, buying many more!



We were delighted that all our hard work and the fantastic efforts of our two inspirational teachers leading science, was recognised when we achieved the Primary Science Quality Mark in summer 20.



What Ofsted says...

In the Framework brought in September 19, Ofsted placed a much greater emphasis on the development of the curriculum. We have welcomed this change and the recognition that the whole curriculum is important and should be valued.



Ofsted explain their primary focus on the curriculum in judging the 'Quality of Education' on offer like this:

Intent, implementation and impact

Inspectors will consider the extent to which the school's curriculum sets out the knowledge and skills that pupils will gain at each stage (we call this 'intent'). They will also consider the way that the curriculum developed or adopted by the school is taught and assessed in order to support pupils to build their knowledge and to apply that knowledge as skills (we call this 'implementation'). Finally, inspectors will consider the outcomes that pupils achieve as a result of the education they have received (we call this the 'impact').

Cultural Capital

As part of making the judgement about the quality of education, inspectors will consider the extent to which schools are equipping pupils with the knowledge and cultural capital they need to succeed in life. Our understanding of 'knowledge and cultural capital' is derived from the following wording in the national curriculum:

'It is the essential knowledge that pupils need to be educated citizens, introducing them to the best that has been thought and said and helping to engender an appreciation of human creativity and achievement.'

Developing Our Curriculum and Our New Scheme of Work

The Intent behind our curriculum at The Firs

In September 2019, the staff reviewed the **intent** behind the design of our curriculum. Our curriculum review sprang from our Vision and Values as a starting point.



We looked at a range of aspects that we wanted to be the key drivers behind the makeup of our revised curriculum e.g.

1. What we wanted to develop in a 'Firs' Mindset' (which we defined as the values and approaches to life we wanted our children to live by and hold to)
2. The knowledge and skills we wished to develop in addition to those set out in the National Curriculum.
3. The gaps in children's knowledge, skills or awareness that we perceived, associated with the context of our local environment, location or general pupil characteristics.
4. Our understanding of what 'Cultural Capital' meant to us at The Firs and in each year group, how we could give children the chance to experience it.



Developing Our Curriculum and Our New Scheme of Work

You can see some extracts from this work on our website and it is all included in the Scheme of Work itself.



Once we had brought together all our ideas and agreed our priorities, we decided on an additional programme of learning, organised into a number of strands, that would complement the content from the National Curriculum. We called these additional strands 'The Firs' Themes'.

The Firs' Themes

The 4 Firs' Themes, in addition to the National Curriculum, to be interwoven through the tapestry of our curriculum:

Firs' Theme	Aims
<p>1. Healthy Bodies and Minds (HBM)</p> 	<ul style="list-style-type: none"> a) To ensure that children know about keeping hydrated and the key aspects in ensuring they eat a balanced diet. b) To provide opportunities to get enough exercise in school and to learn about the need to keep fit and healthy. c) To support children in recognising their own emotions and the feelings of others and to begin to understand how our emotions influence what we do. d) To help children to know about mental health, what it means, ways to look after their own and how to seek help. e) To make sure children know the dangers they may meet online or when messaging, ways to keep themselves safe and how to get help.
<p>2. Developing Me! (DM!)</p> 	<ul style="list-style-type: none"> a) To provide opportunities to explore moral issues and personal qualities, so that children develop an understanding and appreciation of The Firs' Values. b) To explore our 22 values in more depth, looking at how they shape the community we live in. c) To help children to understand and embrace the aspects of a Growth Mindset. d) To support the acquisition of good teamwork skills and an ability to work successfully with others. e) To teach the personal skills that will develop children's independence and self confidence. f) To enrich children's learning by giving opportunities to experience traditional games, nursery rhymes, songs, fairy tales and texts from the canon of great children's literature. g) To teach children about some of the great artists, musicians and scientists of the past and to feature their work and thinking in the art, music and science curriculum. h) To develop children's appreciation of and provide opportunities to experience, a range of traditional sports, whilst developing associated skills.

Developing Our Curriculum and Our New Scheme of Work

	<ul style="list-style-type: none"> i) To begin to learn about and discuss gender and race equality issues in Y4 and begin to learn some of the history behind the moves for emancipation in the 19th and 20th Centuries. j) To be given opportunities in Y4, to discuss and learn about age appropriate current affairs.
3. Forest Schools and the Environment (FSE) 	<ul style="list-style-type: none"> a) To learn about the natural world around them, including local trees, wildlife and the seasons. b) To understand the problems facing the environment (including global warming, pollution, waste management and impact on the natural world) and ways we can take action to tackle issues. c) To be aware, at an age appropriate level, of current affairs relating to environmental issues. d) To benefit from forest school's work that develops practical skills, teaches about the natural world and gives opportunities to support outdoor learning in other curriculum areas. e) To develop social skills, independence and to foster self belief and confidence in Forest School sessions.
4. Our Community (OC) 	<ul style="list-style-type: none"> a) To develop an appreciation of the values and rules needed to support a successful and happy community. b) To learn at an age appropriate level, about the different roles and functions offered by members of the community (both male and female) beginning to awaken ideas about future interests / careers e.g. police, doctors, nurses, vets, firefighters, scientists, engineers, retail etc. c) To learn about Democracy in Year 4 and ensure children begin to understand how our democracy works. d) To learn about Ampthill and the area they come from (in its historical and cultural contexts). e) To learn about and develop an appreciation of different cultures, including those in nearby towns and globally. f) To learn about and respect the religious beliefs of others. g) To develop a basic understanding of French culture and life, to compliment MFL French work and to capitalise on Ampthill's relationship with its twinned town Nissan-lez-Enserune. h) To have opportunities to meet, talk to and value the contribution and experience of older members of our community.

Implementing our curriculum

We have created Knowledge and Skills maps for the Firs' Key Themes, to indicate what we want children to know and be able to do in relation to the Themes. They build from and support knowledge and skills in the National Curriculum and make sure that the curriculum is broad, with many different opportunities and is rooted in the knowledge, skills and local context that pupils need.

Developing Our Curriculum and Our New Scheme of Work

We have also created Knowledge and Skills maps for science and each foundation subject, to indicate what we want children to know and be able to do within the coverage of the National Curriculum.

This is to ensure that the curriculum is planned and sequenced well, with staff being able to see where the current lesson is rooted in the sequence of learning from the previous year, later in the current year or into the next year.

See extract below from the Firs Scheme of Work for Geography:

Subject -	Geography - Skills			
Key Skills -	Year 1	Year 2	Year 3	Year 4
Using Maps	<ol style="list-style-type: none"> 1. Use a simple picture map to move around the school 2. Use relative vocabulary such as bigger, smaller, like, dislike 3. Use directional language such as near and far, up and down, left and right, forwards and backwards 	<ol style="list-style-type: none"> 1. Follow a route on a map 2. Use simple compass directions (North, South, East, West) 3. Use aerial photographs and plan perspectives to recognise landmarks and basic human and physical features 	<ol style="list-style-type: none"> 1. Follow a route on a map with some accuracy 2. Locate places using a range of maps including OS & digital 3. Begin to match boundaries (e.g. find same boundary of a country on different scale maps) 4. Use 4 figure compasses, and letter/number coordinates to identify features on a map 5. Locate Europe on a large scale map or globe 6. Name and locate countries in Europe (including Russia) and their capitals cities 	<ol style="list-style-type: none"> 1. Locate places on a range of maps (variety of scales) 2. Begin to use 8 figure compass and four figure grid references to identify features on a map

Teachers carefully plan to include, challenge and engage all pupils. This ensures a good pace of learning.

Learning objectives and success criteria, are used to communicate to children the key facts and skills involved in an aspect of learning and how to achieve well.

Developing Our Curriculum and Our New Scheme of Work

Children work in groups and with 'learning partners', to ensure appropriate discussion about the subject matter being taught. By talking about their learning and explaining their thinking to others,

children are given the opportunity to really cement their understanding of what they are learning.

Teachers give feedback to children either verbally in the lesson, as written comments when work is marked or by making notes about misconceptions, areas for development or next steps and devoting some time, at the beginning of the next lesson, to deliver these vital points to the children.

'What Are We Learning Sheets' for parents have been enhanced, so that each term, parents/carers will have, as well as full access to the Scheme of Work on our website, details about the work in each area being covered that term, with suggestions for how learning can be supported at home.

Measuring Impact

Teachers carefully assess children's learning as part of their work each day in the classroom. This assessment is not only used to inform them about the individual child and how they are progressing but also to guide them in the planning of the next steps in learning in future lessons.

Each area of the curriculum is led by a teacher who designs a Subject Monitoring Plan at the beginning of each year. Over the year they will talk to children and staff, watch some teaching, look at the work and the planning written by the teachers and any data on pupil achievement. They will use all this information, to draw conclusions on the strengths and areas of development in their subject. This then guides them in what improvements to plan for going forward. These actions are then featured in the School Development Plan, in the next academic year.