ALL SAINTS' SCIENCE INTENT

At All Saints' CE Primary School, it is our intent to nurture and develop the whole child, delivering a high-quality education where Christian values are central to the ethos of the school and its teaching.

We are all **INCLUDED** INDIVIDUALS but here at All Saints' we belong- we have an identity. We worship God together, we are family, we celebrate our Inclusivity and are respectful of our differences.-

VISION FOR SCIENCE CURRIUCLUM

At All Saints' we believe our curriculum **inspires** children to have a life-long love of science. Whatever their background children are **included** and are able to make progress from their starting point and flourish. We want children to be **involved** by engaging their natural curiosity of the world around them and secure scientific knowledge and understanding.

We are **INVOLVED** and INDEPENDENT in our learning, we have a purpose. We aim to be the best that we can be. We always work hard, try our best, ask questions and wonder.

We are **INSPIRED** and IMAGINATIVE. We want to be life-long learners and successful in all that we do. We have great ideas and imagine a better future that we know we can work towards. We are inspired and want to inspire others too to make a difference in this world.

INTENT

PRINCIPLES

Our principles in science were developed by the teachers and pupils and aim to provide the foundation for excellent teaching of science.

INVOLVED

Science is FUN and children are fully involved and engaged in their learning. Children are active learners and pursue their learning out of school; they are able to draw on a range of experiences. Teaching is meaningful and memorable.

INSPIRED

Children experience awe and wonder in science in lessons, visitors coming into school and going on school trips etc. Children are also inspired by home learning projects and events such as Science Week. Children will also learn about inspirational **people** in science and science in **Britain** and in the wider world.

INVESTIGATE

Children build on their scientific knowledge and understanding through practical investigations. Children are 'hands on' and the learning has relevant meaning/ real life context.

VISION

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ENQUIRE

Children are able to ask questions that lead to a scientific enquiry e.g. Do all birds **migrate**?. Children are given the opportunity to explore, be **creative** and try things out. Children experience a range of scientific enquiry.

LANGUAGE

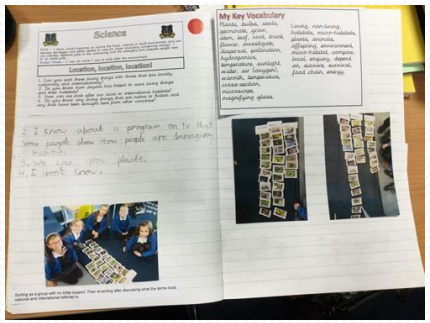
Children are able to use scientific vocabulary through speaking and recording. Children are able to hypothesise, explain and draw conclusions. Children are able to use **language** to demonstrate their understanding.

EQUIPPED

Children are secure in using science equipment and resources. Children begin to choose appropriate resources to measure and record investigations. Cross curricular links are made with other subjects e.g. Maths. Teachers are confident in their subject knowledge and enjoy teaching.

BIG IDEAS

Our curriculum underpinned by our BIG IDEAS – Language, Britain, People, Faith, Migration and Creativity. These are woven (where appropriate) into our vision and principles of science. The 'Big Ideas' are the hooks the children hang their learning and the building blocks for long term memory.



WE ARE SCIENTISTS

INVESTIGATE

We ask questions and investigate our ideas using different types of enquiry. We can sort, group and classify things based on their similarities. We can make observations and seek patterns in science. We can construct fair and comparative tests when investigating a question. We are 'hands on' and we build on our scientific knowledge and understanding.

In each science unit we build on our scientific knowledge through our knowledge gems centered around; **INVESTIGATE, RESEARCH & RECORD**. The knowledge gems are the key things we learn and try to remember. We apply our learning using our working scientifically skills through practical investigations.

RESEARCH

We learn about the world around us and we use scientific language to explain our learning. We are able to hypothesise, explain and draw conclusions from the knowledge we have acquired. We learn about scientists of today and famous historical ones.

RECORD

We use our skills from other subjects to help us record our learning in science. We use scientific vocabulary for speaking and writing our ideas. We take measurements and record these using graphs and charts. Through our investigations we can use a range of science equipment and resources.

IMPLEMENTATION

KEY QUESTIONS & THEMES in SCIENCE

'Science enquiry is what children do in order to answer scientific questions about the world around them'. Jane Turner et al.

What scientific knowledge do I already have (about specific topic)?

How could we investigate this question?

What questions could I ask to understand (about a specific topic) further?

What measurements will we need to take? How often?

Why do shadows change shape?

• Observe • Pattern Seek • Classify • Investigate • Research •

What equipment will we need?

How could I investigate my questions? How can I make it a fair test?

How can we make it a fair test?

How are we going to record our investigation?

How can I measure and record my investigation?

What conclusions have we drawn?

What answers have I found and what research do I have to support my thinking?

What scientific knowledge do we have to support our ideas?

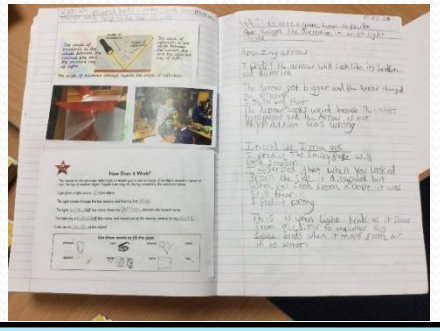
What other questions could we ask?

IMPLEMENTATION

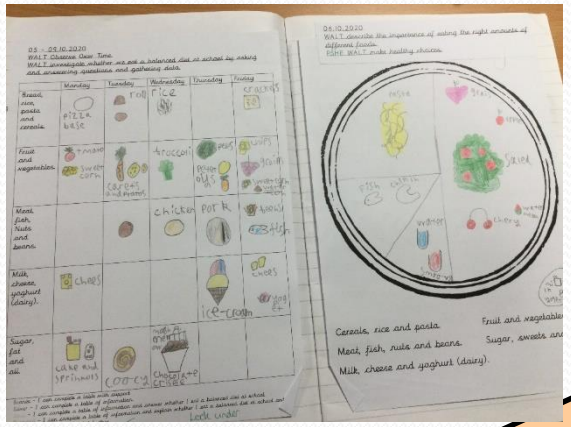
SCIENTIFIC KNOWLEDGE

Each year children build on their prior learning and science units are revisited through the Primary years.

See long term plans and progression documents.



Science is taught weekly in most classes. Some classes are taught by different teachers to enhance learning from a teacher's specialism.



Our science curriculum follows the National Curriculum for KS1 & KS2 and the guidance in Development Matters and Early Learning Goals in EYFS.

The science curriculum is supplemented with other enrichment activities such as educational visits (NHRM, Science Museum etc.), science week activities, visitors in school etc.

Teachers use a range of resources to support learning e.g. STEM, Explorify, BP resources etc.

IMPLEMENTATION

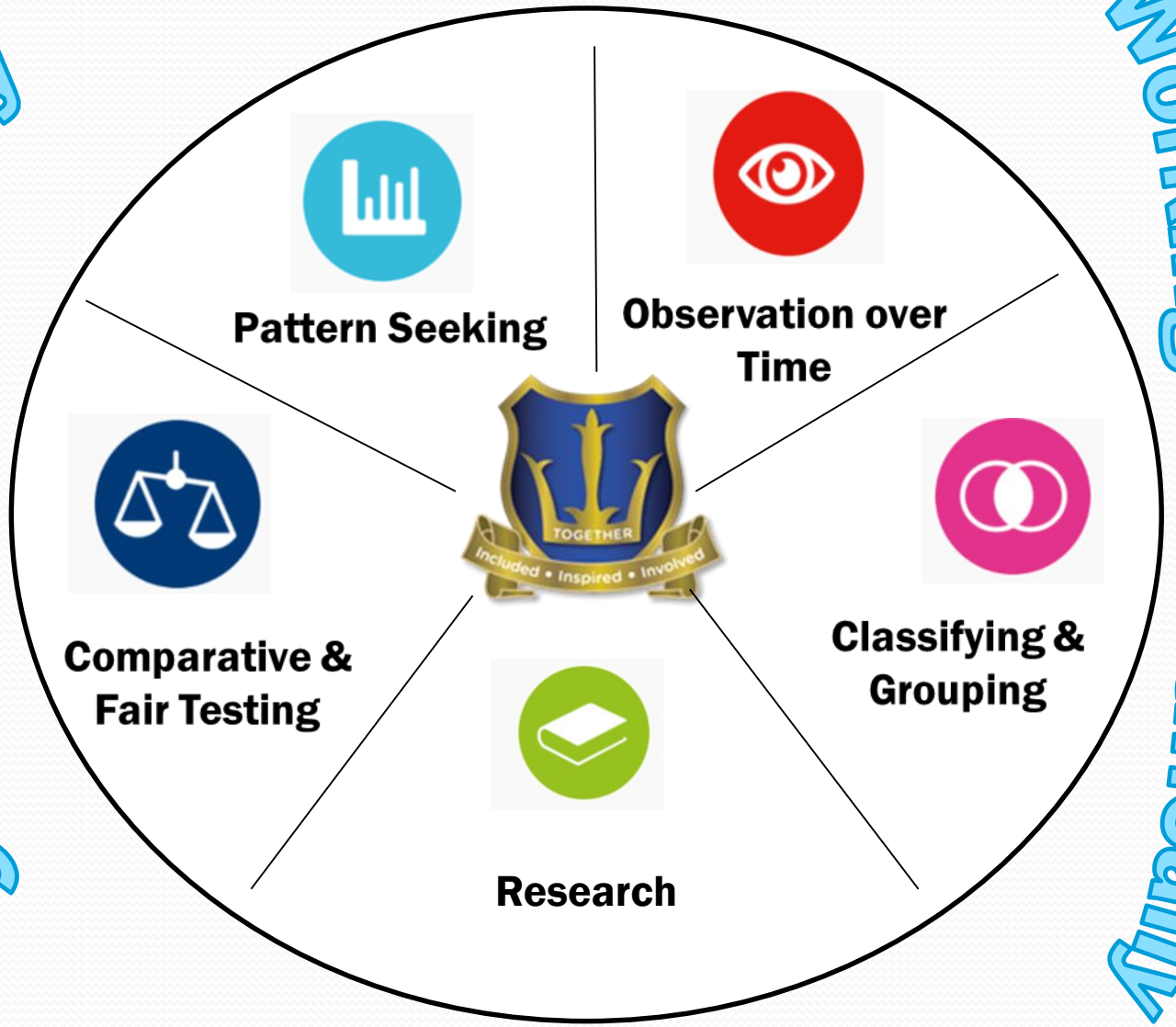
WORKING SCIENTIFICALLY

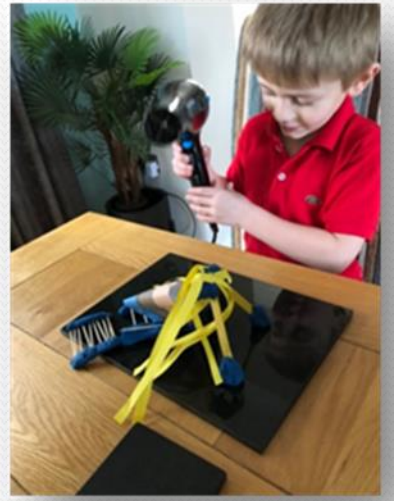
Working scientifically skills are taught through scientific enquiry.

Each year children will cover each type of enquiry. Where possible cross curricular links with other subjects.

Scientific Enquiry

Working Scientifically





It is important children recognise there are different ways to answer scientific questions.

IMPACT

Children will be able to:

achieve age related expectations in Science at the end of their cohort year.

be able to articulate their understanding of scientific concepts and be able to reason scientifically using rich language linked to science.

demonstrate a love of science work and an interest in further study and work in this field.

retain knowledge that is pertinent to Science with a real life context.

The science curriculum results in inspired and inclusive learning which provides children with the foundations for understanding the world that they can take with them once they complete their primary education.

be able to question ideas and reflect on knowledge.

work collaboratively and practically to investigate and experiment.

demonstrate their mathematical skills through their work, organising, recording and interpreting results.