

## Science at Fox Wood



## Fox Wood School

*Together we shine*



## FUNctional Skills

How can science support our pupils to be more independent in day to day activities?  
Here are a few examples...

Science Area	Functional Skills Developed	Real-Life Examples
<b>Biology – The Body &amp; Health</b>	- Body awareness - Understanding illness, hygiene - Recognising body parts and senses	- Washing hands after toileting - Saying where it hurts - Brushing teeth and recognising why
<b>Chemistry – Materials and Their Properties</b>	- Identifying and sorting materials - Understanding how things change (melt, freeze) - Sensory awareness	- Sorting laundry by fabric - Understanding hot/cold (e.g. cooking) - Exploring soft vs hard objects
<b>Physics – Electricity and Appliances</b>	- Operating everyday devices - Cause and effect through buttons/switches - Electrical safety	- Turning on/off a kettle or fan - Using kitchen tools (e.g. blender) - Recognising dangers (e.g. plug sockets)
<b>Environmental Science – Weather, Seasons, Environment</b>	- Dressing appropriately - Understanding time and changes - Environmental responsibility	- Wearing a coat when it's cold - Noticing dark/light outside - Recycling or saving water
<b>Science Enquiry (Working Scientifically)</b>	- Making choices and predictions - Exploring and investigating - Developing thinking skills	- Choosing materials for building - Guessing what will float/sink - Following simple experiment routines



# Science



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The intent of the science curriculum at Fox Wood School is to:

- Encourage natural curiosity and develop a love of the world around us and beyond.
- Provide all of our students with exceptional life and learning experiences.
- Build FUNctional skills and self-confidence to enable students to work with increasing levels of independence.
- Develop social skills to enable students to communicate , and work cooperatively, with others.
- Foster concern for, and active care for, our environment.
- Encourage the application of knowledge gained in Daily Basic Skills & Science to support our pupils to be as independent as possible in daily life activities.



### Sequence of learning

At the initial whole school level, learning is sequenced by science strand & topic. This process allows us to map the broad sequence of learning onto long term plans for each class. By doing this, we ensure that we offer a broad and balanced curriculum with equal exposure to all three science strands and spread out topics to ensure a rounded science experience for all pupils. It also supports us in mapping out the revisitation of topics to ensure that we maximise long term memory retention for our pupils.

Within each specific topic, the sequence of learning is supported by the EQUALS scheme of work for science. EQUALS is an evidence based scheme which is mapped against the 2014 revised National Curriculum and has been designed specifically for pupils working below age related expectations. Furthermore, the purpose of EQUALS is to support pupils with propound and multiple learning difficulties, severe learning difficulties and moderate learning difficulties to fully engage with a meaningful science curriculum. The scheme breaks down learning into appropriate sequences for pupils working across all three of our curriculum tiers (pre-formal, semi-formal and formal). Teachers will use the sequence of learning alongside the pupils progression data to plan an appropriate, and individualized, learning experience which progresses in appropriate steps for the pupil. By using the EQUALS scheme alongside our own assessment and progression data, we know that we are providing an appropriately pitched and paced evidence based learning sequence.

### Implementation

The implementation of the science curriculum is largely individual and will be dictated by which curriculum tier the pupil is working within. Within the pre-formal curriculum, pupils will experience science through a wide variety of specialised sensory experiences. Pupils working within the semi-formal/complex ASD curriculum will experience a combination of sensory experiences alongside taught & practiced scientific concepts. Pupils working within the formal curriculum will experience a range of taught scientific concepts and develop their knowledge of scientific fair testing principles through designing and undertaking practical investigations and experiments. At all 4 tiers of the curriculum, the learning is individualized and sequenced at appropriate steps for each learner.

### Impact—recent data review

The most recent data review indicates that most class groups make good progress within at least one strand of Science per term—this can sometimes be more depending on the topics covered during this time period. There are still some areas for improvement and it has been identified that adopting a non-linear data assessment model for Science moving forward will give a truer representation of the actual progress being made by pupils. This relates to pupils which may have developed a 'spikey science profile' meaning that they are working across multiple levels on our data tracking system for different topics. By adopting the non-linear method we will be able to see the greater levels of progress being made across multiple levels.

**The EQUALS scheme aligns to the 2014 National Curriculum revisions and is specifically for pupils working below age related expectations with PMLD, SLD and MLD.**

