



## Subject Rationale

### Our vision for science

We aim for our children to become confident in their understanding of the science field, knowing the three key strands of science – biology, chemistry and physics. Additionally, children should be able to conduct scientific enquiries, using working scientific language and skills by the time they leave Abram Bryn Gates.

### Content

The content of our Curriculum for science is based around the National Curriculum.

In the *EYFS* children will follow their early learning goals to explore the world, using a range of scientific enquiry skills – observations, questioning and investigating.

In *Key Stage 1* children will begin to develop an understanding of the three strands of science and use their knowledge and skills to enquire into asking questions, making predictions and using results and evidence to make simple conclusions.

In *Key Stage 2* children will further their understanding of the three strands of science and begin to consider the most appropriate equipment, how to make a fair test, how results are reliable and most effectively recorded. Additionally, they will apply these skills to plan effective future investigations.

Throughout their time at Abram Bryn Gates, our children will be provided with opportunities to revisit areas of the curriculum at different parts of the school year. This will allow for opportunities to work scientifically; to apply subject knowledge to different aspects of learning and to provide relevant learning experiences.

### Concept

The overarching concepts of our science curriculum are to explore biology, chemistry and physics, applying their working scientifically skills to reason, predict, conclude and evaluate results, found from investigations.

### Progression of skills and knowledge

Our curriculum has a strong focus on developing children's skills, knowledge and vocabulary by building on their prior learning. Biology, Chemistry, Physics and working scientifically are introduced in *EYFS* and developed throughout each year group, building on prior skills, knowledge and exploring new vocabulary.

## **Inclusion**

At Abram Bryn Gates, we ensure that each individual is able to access and use the scientific equipment, allowing every individual the opportunity to investigate and explore to develop their scientific enquiry skills, allowing every child to have the tools to succeed.

## **Opportunities & Resources**

At Abram Bryn Gates we provide children with the opportunity to use effective and appropriate scientific equipment on a regular basis, as well as, offering opportunities to further their knowledge through visitors and trips – including trips in our local area.

## **Assessment**

In science, assessments will be made over time based on evidence of a range of activities across the strand taught over a period of time. The nature of assessment will vary from formative to summative assessments, through observation, discussions and evidence of work - including the progression of skills, knowledge and vocabulary evidenced and assessed using individual assessment grids which are in each child's book.

## **Monitoring**

Following an action plan being completed, the science lead will work to carry out the tasks; book monitoring, auditing, pupil voice, teacher feedback and observations. The feedback will then be shared with colleagues, including what is working well, areas to consider and next steps – this will then be reviewed and will feed into the following academic year's action plan.