

Science is a core subject and so must be taught for a minimum of two hours per week.

Planning

One week before the unit begins, teachers must complete an elicitation task to inform planning. This will be in the form of a cold task with links to the children's prior learning and knowledge.

- There are separate Long-Term Plans for Henley and Helmingham, due to the different year groupings.
- Our medium-term plans follow the knowledge matrices on ASE PLAN (<https://www.planassessment.com/teacher>). These include Learning Objectives which will be covered in the unit, prior and future learning, Key Learning, Key Vocabulary, Common Misconceptions and possible evidence. The PLAN Examples of Work also provide additional guidance on the sequence of learning.
- The Working Scientifically statements found on the Long-Term Plans need to be used alongside the above to ensure sufficient coverage of all points.
- Teachers also have access to Developing Experts to support with planning and resources.
- Weekly timetabled lessons are planned from these resources.
- A Knowledge Organiser will be designed for the unit being taught and stuck into workbooks at the beginning of each unit of work and referred to each lesson as the unit progresses.

Teaching and Learning

Every Science lesson includes opportunities for pupils to ask and answer questions. Lessons should start and end with a review of learning.

- Regular elicitation tasks need to be used e.g. Explore, Engage, Extend questions in KS2 (found at <https://pstt.org.uk/unique-resources/explore-engage-extend/>), Explorify activities (<https://explorify.uk/>) or use of Science Mascot in EYFS to encourage scientific talk.
- PLAN Learning Objectives are required, with the Working Scientifically LOs for each lesson highlighted in blue as part of the Success Criteria.
- Key vocabulary for the unit is taught explicitly and displayed. This should be introduced at appropriate times during the unit. Word mats featuring the vocab should be available if required.
- There should be a minimum of one practical lesson per unit or a 'wow' experience. In many cases, there will be more than one opportunity for good quality practical work. All practical work and experiences must be designed to meet the learning objective from the PLAN documents.
- Tasks must be appropriately scaffolded so that all children can access Science, regardless of their reading and writing attainment. Staff need to be aware of SEND and PP children to ensure they can access the learning. Scaffolding, stem sentences, modelling and other support opportunities are designed to allow these children to achieve. Pupils with low levels of literacy are not disadvantaged by this in Science lessons. eg: already given the chart/writing frame, an adult annotating etc
- Recall activity at the beginning of every lesson to revisit learning throughout the unit being taught to embed knowledge and skills. Explorify has a very good selection of discussion points to gauge understanding. This does not necessarily need recording.
- Thinking aloud when modelling.
- Pupils have the opportunity for pair work, group work and independent study in each unit, including self-assessment and peer review.
- Opportunities for Stories through Science are maximised.
- Chn engage with British Science Week activities each year.
- There should be a ruled line 4 lines up from the bottom of the page to use for spellings. There should be evidence of the Sounds and Syllables scheme in place.

Assessment:

- AFL / elicitation to inform planning and baseline assessment at the beginning of each unit (prior to the end of the current unit to allow planning time).
- AFL will take place in every lesson through discussions, live marking and feedback.
- Double page spread / end of unit showcase piece. This is the preferred final outcome, depending on the age of the children and the unit being taught. Some guidance in the form of questions/prompt headings can be given. This is used to retrieve prior learning and for children to demonstrate an understanding of the knowledge that has been taught. Children can show their creativity in the way that they choose to present their work; this is not directed by staff. However, our main focus should be on the content and whether the children show an understanding of the learning objectives.
- There should be one opportunity for peer assessment per unit. This could involve the children adding a green/amber/red symbol within the Learning Objective, depending on their opinion of whether the Success Criteria has been met.
- The Greenfields Assessment Tracker is used to record achievements against each Learning Objective. The Working Scientifically LOs must also be assessed. These will then be used to plan future units.
- Teacher feedback should prioritise subject specific next steps in Science and the addressing of misconceptions.
- Misconceptions which come to light throughout the course of the unit and in the double page spread assessments must be addressed.

Learning environment

- Every classroom has a Working Wall for Science, which includes Working Scientifically Wheel, Enquiry Types, Knowledge Organiser (KS2), Key Vocabulary, examples of children's work which are named.
- Working scientifically skills document for the year group are stuck into the front cover of each book and children are taught how to use them.
- The Working Scientifically Cycle is also glued in at the front. These will be referred to frequently during the teaching and learning.