Science at Bearnes – updated September 2023

How is Science taught at Bearnes:

Science is taught as a discreet lesson for 1 hour per week in KS1 and 2 hours per week in KS2. Staff are to use Plan Assessment alongside the curriculum document in order to plan progressive lessons with a substantive and disciplinary learning outcome every lesson.

Elicitation – prior knowledge and misconception identification:

Every topic will start with a two-part elicitation – this elicitation will look at pupils prior knowledge as well as what they might already know about the topic coming up (future knowledge).

Elicitation tasks will be completed at least 2 weeks prior to the start of a new topic in order to guide effective planning to address gaps, misconceptions and riot knowledge. The elicitation will be used alongside Plan Assessment in order to create purposeful lessons so that **ALL** pupils meet the substantive and disciplinary learning outcome from every lesson.

Elicitation star expected to be planned around vocabulary or an enquiry question.

Lesson expectations for all pupils:

Pupils should all receive the same quality of science education and with this in mind the following elements should be present in every lesson taught.

- ✓ Every child from Year 1 up has a designated science book for recording their learning.
- ✓ Every lesson has both 1 substantive and 1 disciplinary learning outcome – this is stuck into the pupils book (printed on sticker) to save time writing them out. The outcomes will be in the form of I can statements. The substantive outcome will be lifted directly from the curriculum.
- ✓ Every lesson should be knowledge/content driven
- ✓ Every lesson should start with a recap of the last science lesson and an explanation of how this new lesson carries on from the last or from prior learning (possibly in another Year – see Plan Assessment for prior knowledge expectations)
- ✓ Each classroom to have a designated science working wall/display that is added to throughout the course of the topic. Every science display must include evidence of pupils work (their learning journey) and key vocabulary (Tier 3 usually) for that specific topic. The vocabulary expected can be found on Plan Assessment planning grids.
- ✓ Worksheets should be limited and only used when necessary – all lesson content must specifically allow the pupil to meet the two learning outcomes by the end of the lesson.
- ✓ Reasonable adjustments should be seen in books in order to o allow all pupils to meet the expected lesson outcomes.
- ✓ Pupils should highlight key vocabulary, from the topic, within their work to allow staff to make quick judgements on pupil understanding/use of vocabulary.
- ✓ Each science topic should start with a frontispiece that identifies the topic being covered and key vocabulary as a minimum.
- ✓ The use of Twinkl worksheets are discouraged due to the fact these are not aligned to the learning outcomes we set as a school and the fact that many worksheets contain KS3 knowledge.

- ✓ All pupils must be given the opportunity to write in their science books – same high expectations as in English books
- ✓ No pupil should leave their science lesson not understanding the the two learning objectives – this leads to gaps in knowledge, a lack of understanding for the next lesson in the sequence and in the long run a dislike of the subject.

Assessment Science:

Pupils need to be assessed at the end of a topic – this could be through an enquiry question (used for elicitation also) or allow stakes quiz on Microsoft forms. Information gathered from this assessment plus teacher judgements will be used to complete the assessment tracing grid.

All staff are expected to assess pupils progress/attainment in every science topic covered. Every class has an assessment tracking grid within the Science curriculum area of Teams. It is expected that all staff complete the grid showing pupils working below, at and above ARE for each optic taught. This completed document can then be accessed by the next reciting teacher in order to see prior knowledge and plan accordingly, when teaching the progressive curriculum.