

Science Non-Negotiables

Overview

1. All Science lessons are taught weekly, occupying two foundation slots (lasting an hour and a half) and using the White Rose scheme of work. These slots can either take place on the same afternoon, or on separate days depending on what staff feel is more appropriate.
2. As a core subject, Science should be taught by the class teacher.

Teaching

3. Each Science lesson has two learning objectives – one for scientific knowledge (substantive) and one for working scientifically (disciplinary). These should be displayed on teaching slides, and shared with children, but do not need to be printed out. The scientific knowledge LO should match the small step title.
4. Each lesson should begin with the flashback 4 provided by White Rose. If misconceptions or gaps in knowledge are uncovered in these flashback questions, these should either be addressed at the time, or time should be given in future lessons to address them if needed.
5. Teaching in lessons should use the White Rose Science scheme as a basis. Staff should use the provided White Rose PowerPoints as the core content of their lessons, however these slides **must** be adapted to include practical experiences and to ensure coverage of working scientifically objectives. The White Rose scheme suggests practical activities that could be carried out for most small steps, and the Science lead has a number of other resources that could be used if required. Staff may also wish to add in extra question prompts from the scheme of work to check for understanding. Children should be aware which enquiry type they are using (when appropriate), and which of the working scientifically skills they are using – PSTT symbols should be referred to support this.
6. In at least three lessons in a unit, an activity from [Explorify](#) must be included to promote scientific discussion and reasoning throughout the school. Teacher discretion should be used to decide where these sessions would be most appropriate within a unit.
7. Children will use White Rose workbooks in each small step. Any extra worksheets or questions should be answered in their green science exercise books.
8. At least one extension question per small step should be produced. These should target GDS children, and their answers should be recorded in their green science books (to match maths). These questions should be more open-ended and encourage children to make links to real life, offer opinions and broaden their thinking regarding the topic being studied.

Recording Learning

9. Science units start with a title page stuck into books in order to distinguish between units.
10. Each unit has a knowledge organiser which is kept in a separate folder that stays with the children as they move through the school. This gives children an ongoing record of the Scientific knowledge they have learned to refer to.

Assessment

11. At the end of a Science unit, children will complete the assessment quiz provided by White Rose. This should be stuck into their green science books.
12. Assessment will be carried out at the end of every Science lesson, against the learning objectives, and should be recorded in the assessment grids as with other foundation subjects. Children should be assessed at greater depth if they have managed to successfully complete the challenge questions in the lesson. Children should also complete the end of unit assessments provided by the scheme, and these results should be added to the assessment grids at the end of each unit.
13. Assessment grids must be kept and passed on to the next teacher to inform end of key stage reporting for science in both year 2 and year 6.

Displays

14. All classrooms should have a Science display and working wall. These will contain the title of the unit, key vocabulary covered in the unit, and anything else that would be useful to provide support during lessons.
15. Teachers should display the PSTT enquiry types and enquiry skills symbols and refer to these where appropriate in their lessons.