



DEVON & CORNWALL
SCIENCE
LEARNING PARTNERSHIP

Primary Science

Audit

&

Needs Analysis

School: Roche Community Primary School

Date: 21st January 2022

Auditor: Michael Kimber

Section 1: School Information

School Name: Roche Community Primary		
School URN: 9082410	Postcode: PL26 8EP	Website: Link
Pupils on roll:207	% SEN: 25%	%PP: 27%
Ofsted Rating and comments on Science (previous inspection): Rating Requires Improvement: 2018 - No mention of Science on previous inspection https://files.ofsted.gov.uk/v1/file/2786017		
Head: Jeremy Walden	Science Lead: Lisa Gardner	Science Scheme: None

Audit Areas:

- Vision, Leadership and Standards
- Policy, Planning and Progression
- Staff development and support

Approximate agenda:

Meet with Headteacher	30mins
Meet with Science lead	60 mins
Meet with LKS2, UKS2 and EYFS teacher (10 mins each)	30 mins

Summary – to return to school:

During this audit, you identified the following key points:

Vision, Leadership and Standards

Roche Community Primary School has a clear shared vision for science in which learners' opportunities to conduct practical activities are prioritised and there are regular student voice conferences. During these, children are asked their opinions on science but also asked to recall learning. This is used across the curriculum to ensure that interventions and teaching is having impact. Over recent years, there has also been an emphasis on outdoor learning across the school.

A priority that was raised by all staff was the importance of talk and questioning during lessons. They felt that this was an effective means to elicit misconceptions and support children's reasoning. It also promoted use of scientific vocabulary, which is highlighted through vocabulary banks and science displays across the classrooms. The head's vision was that this vocabulary would be reflected not only in the teacher's inputs but also used regularly by the children throughout lessons.

Science is considered to be a strength in the school by the leadership team, and they have established various routines around the subject to ensure they are evidencing progress clearly. Partly, this has been driven by their 'Requires Improvement' Ofsted Grading – to be prepared for another inspection - however they have found that the routines they have established have been effective in enhancing teaching and learning at a deeper level. At this stage, they are now looking for opportunities to take science further and establish it as an enriching subject that has lasting, inspiring impact on the learners.

Policy, Planning and Progression

As mentioned above, Roche gain considerable value from robust and prioritised pupil conferencing meetings. One benefit of these meetings is in questioning children about the learning they have recently undertaken, as evidenced in their books. Children are asked questions without access to the book, then provided them to see what they can remember at both points. This has helped the school identify knowledge gaps, and identify key concepts to recap. More broadly, this helps to identify where certain styles of lessons & teaching have had the most impact. An outcome of these has been an increase in 'Super Science Days' in which whole days are dedicated to science. The staff have found these are memorable, enjoyable and have a positive impact on pupil outcomes.

Target tracker is used across the core subjects to measure progress and attainment. This has been embedded previously across both English & Maths, so staff have found extending this to science convenient and helpful. Beyond this, the children's floorbooks and displays are the primary source of evidence for pupil progress. The intention for these resources

(alongside the vocabulary banks) is that teachers should be referring actively to them during lessons, and the children subsequently are expected to do the same. Student voice has revealed that the knowledge organisers in the floorbooks are particularly helpful for students' recall, and completing this across the wider curriculum (eg. Looking at the science of sound during music lessons) has also been helpful. Having returned fairly recently to post, the subject lead felt these routines were effective and well-embedded in their own classroom, but should review how they are approached and utilised across the school to ensure consistency.

Roche has a standardised medium-term planning template, which carefully covers the key vocabulary, knowledge and working scientifically skills to be taught within each topic. A priority expressed by the headteacher was that teachers should understand the progression of knowledge within these documents alongside how knowledge and skills are developed throughout the wider school. On a lesson-by-lesson basis, teachers are given freedom around how they approach their teaching and are not required to submit individual lesson plans. In order to cater for gaps identified in knowledge (partly due to COVID), the school has adopted a weekly 20 minute recap science lesson.

Student voice is used extensively to measure the impact of lessons, and to understand how the children in the school are progressing. A specific group of children from each class currently meets with the head & deputy, though this may soon extend to the science lead. This has been a helpful measure to date and provides a thorough insight into how specific children are doing. Where possible, it may be worthwhile to extend this to more (or all) children so that all have the opportunity to share their perspectives, talk positively about science, and be monitored beyond statistical measures.

Staff development and support

Staff at Roche are collaborative and in regular communication with one another. During discussions with teachers, they did not feel that they had pressing subject knowledge or pedagogical needs within science, and felt that they were confident in teaching the subject. With this level of confidence, it would still be beneficial to work closely with them and identify where to extend staff further in their development in science teaching to ensure the best outcomes for children.

Though staff have not had any opportunity for science training this year, the subject lead is currently taking part in a support package with the Science Learning Partnership and in the near future will be attending a course looking at assessment in science. Time should be made to discuss outcomes of this session with the headteacher and cascade any actions to the teaching team. We have also recommended that Roche use the training day to collaborate with other schools within the trust and agree shared actions/priorities to implement in the near future. This will enable them to compare the impact of these actions and collaborate on projects which may emerge as a result.

As the school had discussed much of the mechanics of their planning and progression with an Ofsted inspector shortly prior to the audit, our conversation centred largely around how staff could look to further enrich the curriculum for their learners. In the past, the school has worked closely with organizations such as the Eden Project and had begun a

community project. The school were keen to re-establish links with these organizations as they move out of COVID restrictions. We also recommended looking to the local area to build further links, and the head suggested that the Lithium industry may be worth exploring. The STEM ambassador hub was also suggested as a means to bring more visitors into the classroom, break down gender stereotypes and provide enrichment – perhaps within Super Science Days.

Summary of next steps:

- Monitor use of floorbooks, and how consistently they are referred to across the school
- Ensure all teachers are clear on how the curriculum progresses throughout the school
- Explore ways to extend student voice opportunities to more children
- Cascade actions/reflection points from Assessment course to the team at Roche
- Build opportunities for local visits/visitors back into the curriculum

Thank you for inviting us to conduct this audit with you. We trust that the conversation on the day has opened the opportunity for reflection and highlighted areas you may wish to further develop within your curriculum. Should you have any comments or queries which arise from this report, please get in touch and we will be happy to discuss them.