Department of Education, Sport and Culture

Rheynn Ynsee, Spoyrt as Cultoor

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Date: 14 June 2018

Moderation of Science Record 2017-18

Date – 12th June 2018

School – Sulby Primary School

Moderators – redacted

Class teachers – redacted

School Context – There are 157 children on roll, the school has 7 classes all single form entry. The Co-ordinator is redacted the Y4 teacher who has been co-ordinating for 3 years. Science is currently not on the SIP although the school will be shifting its priorities in the 2018-19 academic year when it will be trying a mastery approach in Science. They will then be moving away from using a selection of QCA and various schemes to support their objectives and lesson ideas in Science. At present staff do not use the tracker but support assessment through the level descriptors found in the 'Guide to assessing Science' document. The Headteacher is keen to slimline the moderation of Science to make it user friendly for staff especially in the area of SC1. The Headteacher informed moderators that there has been no in-house moderation as the school will be moving to a new curriculum shortly.

[The original scheduled appointment to moderate the school was cancelled due to a lack of supply cover being available for one of the moderators, this was not confirmed until a week beforehand. The Headteacher informed the moderators that work for the moderation had already been completed by his staff. It was agreed therefore, that when a new date was scheduled, moderators would only assess on the original evidence gathered so as not to add to teachers' workload further.]

Activities During Visit – Moderators met with the Headteacher, the Co-ordinator was also available to sit-in for the initial session. Assessment material was reviewed, the

science evidence provided was moderated and the Y2/Y3 pupils interviewed (the Y6 pupils were out on a day trip and were not available).

Evidence of in house moderation - Headteacher meets with staff to discuss children who are flagged up during pupil progress meetings.

ScienceTraining attended including Science Cos - Science Co-ordinator regularly attends co-ordinators' meetings.

Verbal feedback given – Yes, to Headteacher
Moderation Focus - Two pupils assessed at 2a and two pupils assessed at 4a. Focus was on overall attainment and use of data within science.

Overall Comments:

The school was warmly welcoming with offers of drinks, and a room provided for the moderators to work in without being disturbed. The Headteacher made himself available throughout the day for questions. The pupils who were available for interview were polite, responsive and happy to share their thoughts. They appeared enthusiastic about this area of learning.

The Y2,Y3 and Y6 teachers had prepared evidence for assessment, work was marked and science strands that had been achieved were highlighted on a master copy of the level descriptors, one for each child. All work was labeled at the beginning of each piece with the learning intentions, moderators then cross checked this with the descriptors to assess the levels achieved.

Individual Students:

Student 1 Yr2
Level: 2a
Evidence provided: Science Book which contained photos of children, written records of investigations which included some graphs, worksheets, relating to SC2, SC3 and SC4. There was an enclosed copy of the highlighted level descriptor sheet for L2.

The Moderator agreed/<u>disagreed</u> with this level because:
Although initially a little shy the student was enthusiastic about this subject and was able, when asked about misconceptions, to indicate on the diagram why the circuit would not work when previously he had recorded it as complete. He was prompted to use the scientific vocabulary, 'complete circuit'. The highlighted descriptors and the moderation show that the child is working at a Level 2b. Whilst coverage shows that all areas of SC1 are being addressed some investigations had potential to progress the learning further by using the descriptors in the 'discussing, explaining and evaluating' strand further i.e after drawing up results ask the children to complete their investigations by reflecting on a conclusion/what they have learnt from these.

Student 2 Yr3
Level: 2a
Evidence provided: Science Book which contained photos of children, written records of investigations which included some graphs, worksheets, relating to SC2, SC3 and SC4. There was an enclosed copy of the highlighted level descriptor sheet for L2.

The Moderator agreed/disagreed with this level because:
The student was very enthusiastic about science and the hands on investigative work that she does in school. In interview we asked several questions about work undertaken throughout the year and the misconceptions highlighted in her book by the teacher. Her answers indicated she was still not confident in her subject knowledge, however it is difficult to know from just seeing comments in the book what verbal follow up was done to correct any misconceptions. The evidence provided showed that the pupil had secured enough SC1 at Level 2 to be a secure 2b, however, there was also evidence from the moderation process to suggest she had achieved elements of a Level 3 in some of the descriptors. (There were no Level 3 assessment sheet attached). We would therefore agree assess them as working within Level 2a.

Student 3 Yr6
Level:4a
Evidence provided: Science Book which contained photos of children, written records of investigations which included tables, various graphs, worksheets relating to SC2, SC3 and SC4. There was an enclosed copy of the highlighted level descriptor sheets for L4

The Moderator agreed/disagreed with this level because:
This pupil is working at a level 4a with some elements of level 5 being present. It was lovely to see the pupil using 'because' predictions and writing conclusions using, for the most part, scientific knowledge; but this needs to be underpinned with more subject specific vocabulary in context and consistent use of subject specific knowledge being applied to her learning.

Student 4 Yr6
Level: 4a
Evidence provided: Science Book which contained photos of children, written records of investigations which included tables, various graphs, worksheets relating to SC2, SC3 and SC4. There was an enclosed copy of the highlighted level descriptor sheets for L4

The Moderator agreed/disagreed with this level because:
This pupil is a level 5c. There was a range of scientific data, presented using different forms of graphs, repeated observations with clear reasons why. Conclusions were well framed, with suggestions for science methodology that used key vocabulary.

Strengths:
1. It is clear that Science is taught regularly and there is a clear structure in place for science teaching across the school. Pupils interviewed stated they enjoyed Science especially the practical aspects.
2. The Headteacher is keen to raise standards in Science and has a clear idea of what direction he wishes the school to take in order to move forward.
3. The evidence shows that the school provides regular opportunities for investigative work.
4. The learning in Y6 highlights there are opportunities for children who are more able to extend their learning.
5. It is clear that the school is progressing skills in data handling as there was a good range of tables, bar charts and line graphs being used at Y6 in Science and the skills were being developed to interpret, analyse and evaluate these.

Lower down in the school evidence of the use of pre-formatted tables, and the construction of bar charts was also present.

6. Scientific concepts within the real world were used as a context for some of the work.
7. There were strong scientific written models used in the Y6 work to record, this will help support learning when transitioning to secondary school.
8. Teacher feedback in books in Y3 challenged learning and allowed the pupil to progress if acted upon, and, or, discussed with the pupil later.

Areas for development:

1. In order to support the Higher Order Thinking Skills in SC1, consider ways to encourage Level 2 learners to successfully tackle open-ended challenges rather than relying on structured worksheets which might limit progress.
2. Consider developing the use of pattern seeking and model making investigations (Y6 did use one on filtering) within learning activities.
3. Whilst curriculum time is pressured a key element of developing science skills is to allow time for reflection so that children can identify weaknesses in their methods and results, repeating these if necessary. Y2 would benefit from extra time to record conclusions linked to data so the investigative cycle is completed.
4. Children when asked were not sure how to move their learning on or what they needed to do next to be better scientists. Sharing next steps would support their progression.
5. There were some misconceptions in books that were echoed by the pupils when interviewed. Whilst there is no way of judging if these were addressed in class verbally, it's important that these are addressed early on.
6. Teachers should consider annotating attainment across levels as progress is not linear

Signed (Moderator) – Date –

Signed – (HT) Date