

Science Subject Report 2017-2018

Leadership and management

- Assessments recorded on system in w-drive, SJB assessment folder.
- Developed new system for assessment data - teacher assessments recorded for individual children - percentages for each group are created automatically (reducing staff workload).
- MiniSATs results are recorded on an excel document so average result for each child, across all of the units taught is generated automatically.
- Science folders - staff now gather evidence of work sample AND MiniSATs paper for exceeding/expected and emerging child.
- Science week - promoted investigative science lessons.

Moderation:

- Book/folder monitoring conducted in some year groups.
- Written/personal feedback offered to all teachers with clear positives and areas to be developed.

Links with other schools/outside agencies:

Effective links enable us to share good practice, increase subject profile, resource and impact on progress.

- Guardian Angels Primary School - investigative science staff meeting held in Spring.
- Science Week 2016 - in collaboration with the education group with the provision of forensic science workshops.
- HS2 collaboration - providing children with a range of STEM and work-related experiences in both Key Stage one and two. This involved part-day construction and STEM workshops and visits to the construction sites to

learn more about the HS2 project and those who are working on it: all of which were closely mapped to the curriculum, with a strong emphasis on Science, Technology, Engineering and Maths.

Progress Review:

- JK reviewed the coverage of taught units and highlighted the need for progression across year groups each term.
- JK analysed end of year data to find strengths and weaknesses in the data for each year group and to identify patterns in the data as a whole school.

Resourcing:

- Annual audit of resources.
- Staff emails sent out for requests in preparation of resourcing for future units.
- Science cupboard - cleared (Summer 2018).

Quality of Teaching

- JK supported staff in terms of assessment and gathering work samples.
- Opportunities were provided for teachers to share best practice through coaching observations.

Staff INSET/CPD:

- Guardian Angels staff INSET -to promote the delivery of investigative science lessons.
- External moderation events - to discuss and share best practice and work samples with other schools.

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Curriculum Events/Highlights

Science Week

During the week 12th - 16th March 2018 St John the Baptist Primary school took part in 'National Science Week'. The theme for this year's British Science Week was "Exploration

and Discovery”, encouraging young people to think everyday discoveries and how they affect their lives by exploring science in the world all around us.

The objective of Science Week each year is to provide engaging, fun lessons that focus on investigative skills and promote the relevance of Chemistry, Physics and Biology in our everyday lives.

This year we wanted to show children that there are scientific processes behind everything around us, most of which are taken for granted every day. “Exploration and Discovery” invites children to stop, take note and explore the processes that are happening around them every day.



Explorer Dome

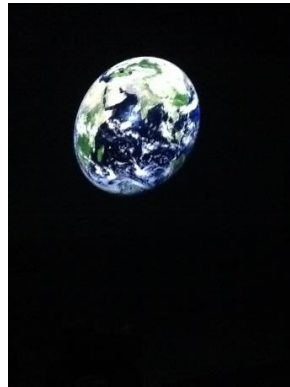
The Environment:

- KSI attended ‘The Environment’ sessions. The ‘Environment’ show toured habitats of the world, food webs and the role humans play within the ecosystem. Children virtually travelled to the rainforest and outer space to see the magnificent world from outer space.
- The children enjoyed the exciting, virtual ‘Explorer Dome’ sessions. The sessions were exciting and engaging and inspired the children as they were visually exposed to elements that are difficult to teach within the four walls

of a classroom. These sessions provided a 'wow' moment for all pupils in attendance.

Space:

- KS2 attended 'Space' sessions. Our Earth, our Sun, our solar system and our place in space. This was a fantastic session based on one of the most inspiring topics. This provided children with an interactive guide to our local neighbourhood and beyond with the opportunity to ask big questions, explore interests and learn how to spot the constellations in the sky.



Forensic Workshops

Education Group's Forensic Science Workshop engaged children with scientific techniques that demonstrated how science works in the real world. The context of the scientific investigation brought science to life and stimulated interest from Year 1 up to Year 6. The workshop allowed children to practice Science skills such as observing, exploring and asking questions.

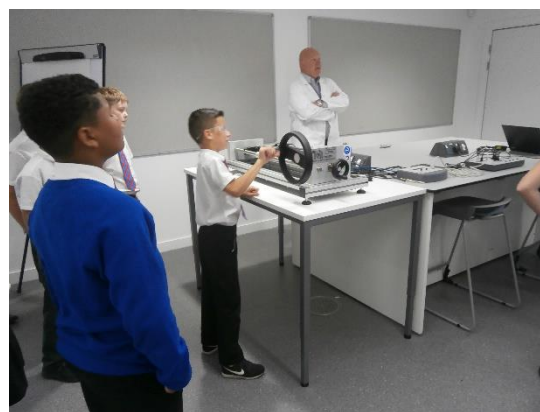
A crime was 'committed' and it was the responsibility of each class to work together to piece together the evidence. The workshops are suitable for all primary school children; however younger investigators were reassured that the story was 'make believe'. Once inside the crime scene the young investigators had to tape off the area in order to protect any evidence. Clues and evidence were identified, collected, interpreted and analysed. This included finding, developing and characterising fingerprints, investigating tool marks and other impressions, identifying hairs and fibres and investigating blood, bones and DNA.

The children witnessed first-hand how science is used in a real-life context and enjoyed solving the crime!



National College for High Speed Rail - Year 5 trip

Year 5 visited the offices of the construction company LM where they learned about the HS2 project and became architects for the morning constructing bridges strong enough to be free standing and withhold weight. The children then visited the National High Speed Rail College where they went on board a high speed train and used a VR machine to simulate a driving experience.



Fire service visit - FKS

Officers used their training, experience and expertise to deliver fire safety messages in a sensitive and reassuring way so children understood the importance of home fire safety without becoming worried about a fire happening in their home. Children learned that fire is dangerous, and can hurt people and was taught about common fire hazards, and to never play with matches or lighters. They also discussed smoke alarms and how they keep homes safe from fire, what to do in an emergency if there is a fire, and how to call 999.



Overview:

- Pupils and staff are more aware of their strengths/areas for development in Science.*

- Children engaged and enjoyed their learning in science this year.
- Science curriculum is providing children and staff with more opportunities for creative, investigative learning.
- Strong scheme and assessment tool in place - ensures staff are clear and confident with expected learning outcomes.

Next steps

- Ensure that teachers fully understand the assessment procedure for science and collect required evidence
- Monitoring of scheme coverage - reviewed half-termly: work samples, folder/book looks, lesson observations, learning walks and discussions with staff and pupils.
- Review/audit resources.
- Organise Science Week 2019.
- To organise and plan a range of enriching experiences for all year groups to ensure a rich and bespoke Science curriculum for St John's.
- Ensure progression documents are fully utilised to ensure lesson outcomes are delivered at the correct pitch.
- Continuation of internal/external science moderations.
- Use/monitoring of assessment tools/data to highlight any pupil/groups that are not making expected progress. Followed by support/interventions.
- Prepare and report to SLT and Governors.
- Make best use of external links/partnerships.

Jemma Kelly

September 2018