



# Science Learning Walk 8<sup>th</sup> May 2024

A group of governors visited school to see teaching, learning and assessment in Science. Before we visited school, we read some information on Science from the National Curriculum and from the School Improvement Plan.

## **Links with School Improvement Plan**

### **Quality of Education**

All teachers and subject leaders to develop assessment opportunities across all subjects, particularly in foundation subjects, in order to gain an accurate view of what pupils already know and what they need to know further so that they can progress.

### **Leadership and Management**

To improve subject and pedagogical knowledge to enhance teaching and assessment.

### **What did we do?**

We visited Years 2,3,4 and 5 to see their Science lessons. We looked at some work books, talked to the children and then had a discussion with the Science lead, Mr McAnespie.

### **What did we learn?**

#### **Year 2: Lesson on flowers**

Working in pairs, the children were writing down and drawing sunflowers to describe the key parts of the flower, what they needed to grow and thrive. This part of the lesson was to recap prior learning. There was a good opportunity to speak to the children to hear what they knew about how plants grow. They showed a good demonstration of science vocabulary and knowledge. There was a combination of drawing and written work. The children were very happy to talk about the subject and said they enjoyed science.

#### **Year 3: Dissection of flowers**

Working in pairs, children were using scissors to cut flowers to extract and name their key parts. Again, there was a good demonstration of science vocabulary and knowledge, with children naming, pointing to and describing the function of parts such as sepal, petal, stamen. They were very pleased to talk about their work and the practical task was undertaken enthusiastically and with good support from the teacher. There was clear enjoyment of the topic.

The children were taught in a formal learning arrangement, sitting at desks, and were asked to first verbalise their answers informally, sharing with the class, before being asked to write their answers down. Following written responses there was wider class discussion.

#### **Year 4: Sound**

A guitar was used by the teacher to demonstrate transmission of sound and vibrations of a string into particles in air. This involved questions and answers and checking on prior learning. There was a strong emphasis on students using the correct, and very specific, science vocabulary to describe and give exact answers e.g. vibration, pitch, particles, greater, lesser, distance.

After discussions on changes in pitch and what causes an increase in volume, the next part of the lesson was an activity where students were making their own cup and string telephones in pairs and with hypotheses on what the results might be if various factors were changed. Learning outcomes were differentiated (working towards/ meeting / exceeding) for the children when providing their answers, based on their knowledge of qualities of different states of matter for transmitting sound. It was clear that the class enjoyed the lesson and behaviour, attention and responses to the questions were excellent.

### **Year 5: Lesson on planets in the solar system:**

In the first part of the lesson the teacher asked questions to find out the differences between moons and planets. A range of scientific vocabulary was used by students to describe features of, and differences between, the planets. Physical demonstration using fruits was provided for children to undertake an exercise in ordering the size of planets from big to small. There was the promise of being able to taste the fruit later. Working effectively in pairs, the children referred to earlier learning in their books to help answer the questions. We talked to the children about the topic. They showed excellent knowledge, with one student explaining the key differences between the outer and inner planets.

### **Positive comments**

All classes showed enjoyment in their work and a good level of scientific vocabulary. They were able to tell us what they were doing and what they had done previously. They were working scientifically. It was good to see retrieval practice (discussion of prior learning).

### **Book scrutiny**

We looked at a selection of books from different years and levels. Knowledge organisers were evident at the start of each topic for children to refer to, providing the key vocabulary and information on that topic. It was explained these were provided for KS2 by the Trust, whereas for KS1 there was a need for the curriculum leader to source this. This might be developed by the Trust.

We looked at some KS2 books from year 6, where there were clear indications of how topics covered in today's lesson in Yr 5 (planets of the solar system) were then built on in Yr 6, to show development of learning.

### **Curriculum lead**



We had a very interesting and informative discussion with the curriculum lead who explained where the focus should be in developing the teaching of the Science curriculum. It was also useful to hear how the school works with the Trust eg curriculum support for teachers and visits for some children to have experience of working in a Science lab at secondary school.