



The Brindishe Federation of primary schools

The impact of Explorify: Improving pupils' oracy and teachers' confidence

About the Brindishe Federation

The Brindishe Federation comprises three primary schools in London. The schools vary in size from 227 to 666 pupils, with mixed demographics. The percentage of children eligible for free school meals ranges from 10.1% to 21.1% at the largest school.

Science at the Brindishe Federation

Science is usually taught discretely once a week at the federation's schools, but staff are encouraged to link it to the wider curriculum, including topics in English, maths and geography. For example, the data collection part of the maths curriculum involving graph work and statistics is interlinked with science to make the lessons more meaningful for pupils.

How the Federation uses Explorify¹

Teachers across the Federation have been using Explorify since 2016. Science leaders at Brindishe promote the use of Explorify as a cost-effective resource that can support staff to improve their science teaching and raise the profile of science alongside maths and English.

Teachers are expected to use at least one Explorify activity per unit of science, and some engage with the resource every week. To encourage teachers to engage with Explorify one of the science leaders in the federation identifies three different Explorify activities applicable to each of the science units. Explorify isn't just used in classroom settings; science leaders also use it to support extra-curricular activities, such as the after-school science club they run for budding scientists.

Both science leaders and classroom teachers at the Federation use Explorify to tailor science lessons to the needs of their pupils and use different Explorify activities dependent on the year group they teach. For example, the federation considers Zoom In, Zoom Out and the Odd One Out activities particularly beneficial for engaging and promoting discussion with younger children in early years and Key Stage 1.

Teaching staff at Brindishe frequently use Explorify activities to introduce new topics and to stimulate whole class discussion at the beginning of lessons. Staff also use the activities as a plenary at the end of lessons to help the children to consolidate their learning. In addition, the teachers at the federation use question activities to extend and challenge the learning of more academically able children.

The schools also use Explorify as a formative assessment tool, which supports teachers to identify those children who have the potential to work at greater scientific depth and those that would benefit from some extra support.

Teachers at the Federation describe how Explorify helps to increase pupils' awareness about science and can help to highlight their potential misconceptions in a topic area. They find the Explorify activities user-friendly as they provide comprehensive and straightforward guidance,



which ensures they are accessible for all. For example, the detailed contextual information helps teachers at the federation to pre-empt the questions children may ask and enables them to confidently respond.

The Helpful Reads in the teacher support section are particularly beneficial in supporting staff to keep abreast of the latest science education research.

“The teacher support section, regarding the latest reports and latest updates, they’re really good and helpful, and for me, as a leader, to just check in on and see what’s been happening, that I can update the staff about.” Science Leader

Impact of Explorify at the Federation

Impact on pupils' confidence, language skills and oracy

The teachers at the federation report various impacts on pupils after engaging with Explorify activities, including how children's enjoyment of science has increased, and that pupils are more able and confident to talk about science in a meaningful way.

"They feel more confident, they seem to enjoy speaking about the science that we're doing, or they look forward to planning their own investigations." **Classroom Teacher**

Explorify encourages children not to be afraid of getting it wrong. Teachers at the federation report that because children are interested in the activities, that they are more likely to have a go and are excited about contributing their ideas in lessons.

"So sometimes we do Zoom In, Zoom Out and children's ideas change, and they realise that they don't always have to see it the same way. So, again, it's really enforcing that thing that we don't always get it right first time and it doesn't really matter." **Science Leader**



The overall language skills of the children at the Federation have improved through their increased capacity to use scientific vocabulary. A particular strength of the visual resources and pictures in Explorify is that they stimulate group and class discussion among the younger children, which helps to improve their speaking skills and expand their use of scientific key words. The Explorify materials encourage the children to discuss topics using new terminology and their teachers have observed that the children have expanded the length and depth of their answers.

"It's had impact with improving their ability to use the scientific vocabulary that is taught and apply it to sentences because the activities are planned in a way that when they're discussing it, they really need to use the language that we're teaching them in class to actually talk about it in a meaningful way." **Classroom Teacher**

Wider impacts are also evident among children at the Federation because of using Explorify, including improved oracy and reading comprehension skills. The Brindishe schools recently undertook a large-scale oracy project and applied the technique of asking pupils to explain their thinking, developed whilst using Explorify, to other situations.

"My children often find reading comprehension questions really hard when they've got to justify their opinions. They're very comfortable doing it when they're doing these Explorify activities. I sometimes will refer to it and say, like we do in the Odd One Out, you just have to explain why you think that. So, there is the link with other subjects in that respect." **Science Leader**

Impact on teachers' confidence to teach science

Teachers at the schools report that Explorify has significantly increased their confidence in their science teaching, especially amongst those with less experience.

"If you're not as confident or, in certain terms, like, retaining scientific knowledge and learning science behind the things, Explorify is able to really clearly explain what's going on in a way that it's easy to understand no matter what your scientific background is." **Classroom Teacher**

For teachers with a science background who are confident in their science subject knowledge, Explorify has enabled them to develop more accessible and understandable lessons for children and other staff that will be delivering the same lesson. Science leaders and classroom teachers at the federation report that their scientific subject knowledge has improved because of engaging with Explorify. It has also enabled them to develop their knowledge about the applicability of science across different settings and the different roles that scientists can have.

The visual activities that are integral to Explorify support inclusive science teaching as they enable staff at the federation to make science engaging and fun for different year groups, more academically able children, those who may have additional educational needs and children for whom English is not their first language (EAL). For example, the visual nature of the What's going on? activities effectively engage EAL children:

"I like to use the What's going on? activities with some of the EAL children. It's quite visual for them to see what is happening and we can Google translate it to try and get some of the key points across." **Science Leader**



Teachers at the Federation find that Explorify provides them with a frame of reference that enables them to assess and confirm their judgements about children's knowledge on a topic, which helps them to pitch subsequent lessons at the right level.

Explorify also enables the teachers to reduce the amount of time they need to dedicate to planning their science lessons because they only need to search one website, the resource is easy to navigate, and the comprehensive guidance means that everything is in one place.

"Explorify gives teachers some[thing] that isn't scary and isn't labour intensive and has got some extra facts to back up their notes and knowledge." **Science Leader**