





### Rosebank Primary School

## Using Explorify to engage pupils in class discussions and build their confidence

#### About Rosebank Primary school

Rosebank Primary is an urban, inner-city school located in the centre of Dundee, Scotland. The number of pupils aged 5 to 11 on roll has doubled to 297 over the last 6 years and the school has relocated to accommodate this larger population. Half of the school's pupils applied for a clothing grant in the 2023/24 academic year and 45% have English as an additional language. The school has not been inspected within the last 10 years.

#### How science is led and taught at Rosebank Primary school

A key priority for Rosebank during the 2023/24 academic year is to raise the profile of science, technology and computing. The main objective is to increase pupils' science capital. The school are also looking to develop pupils' scientific skills and knowledge along with their confidence to think like a scientist.

Science is taught by all teachers at the school. The STEM lead dedicates three days each week to developing the science curriculum and upskilling teachers, so that they are confident to teach science.

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# How Rosebank Primary school uses Explorify<sup>1</sup>

The STEM lead is currently trialling Explorify, having first learned about it at a Scottish Schools Education Research Centre (SSERC) training course in 2022. The STEM lead initially used Explorify in literacy lessons to increase pupil participation and develop their oracy skills. As the pupils grew in confidence and became more familiar with science concepts, the STEM lead introduced more open-ended questioning to encourage pupils to share their knowledge in class discussions.

"Pupils were very timid and they didn't really feel confident in answering open questions .... I knew quite a few of those boys in that group were very interested in science and nature. So as soon as I saw Zoom In, Zoom Out, I thought I'm going to give this a go. I would just have the Zoom In, Zoom Out activity on the board as pupils came into class and obviously it took a few times to introduce exactly the point of it. But they absolutely loved it." STEM lead

Having successfully introduced Explorify activities in literacy lessons, the STEM lead now uses the resources in science lessons to stimulate discussion and debate among pupils. Many of Rosebank's pupils do not have a garden or access to outdoor spaces, and several pupils have not had access to experiences beyond the city or the immediate area in which they live. The visual content and practical elements of Explorify deliver tangible benefits in this context by enabling teachers to connect these pupils with nature.

"I think it's important to know that we are in an area of high deprivation where pupils are not getting experiences. A lot of the things that we're seeing in [Explorify] are not things that they're seeing elsewhere." **STEM lead** 

Each term, the STEM lead delivers around one STEM related CPD session to staff. This is supplemented, on an ongoing basis, by lots of one-to-one less formal conversations with staff to support them with subject content and suitable resources to access. The STEM lead also works with teachers to help deliver science lessons. During the remainder of the week, the STEM lead is a classroom teacher.

Science is taught as a major subject for one term each academic year, for 2-3 hours per week. Each year group focuses on a specific topic. Core topics in the current academic year are space, the senses, and biodiversity. For the remainder of the school year, science is taught for 3 or 4 one-hour standalone sessions to cover the outcomes selected for each stage. Rosebank Primary has recently shifted to interdisciplinary teaching. As a result, wherever possible, science content is integrated into other aspects of the curriculum. For example, one of the science lessons about the water cycle is linked with a literacy lesson on instructional texts.



## Impacts of Explorify at Rosebank Primary school

Increased pupil confidence to engage in science discussions

According to the STEM lead, Explorify activities have helped pupils understand that there is not always a right or a wrong answer. As a result, pupils are more confident to share their ideas and the reasoning behind them when asked questions, as well as to challenge each others' views. This practical and engaging way of teaching science has meant pupils are more likely to contribute to discussions.

"There's the possibility of so many different answers when using Explorify. Very rarely would pupils all think the same thing.... it was just a great way of encouraging children to have a go...."

STEM lead

Explorify activities also encourage pupils to listen and appreciate others' viewpoints, which is especially important in a school with pupils from diverse backgrounds and cultures. The open-ended and broad nature of the activities, together with the visual prompts, has increased the confidence of pupils for whom English is not their first language to contribute during classroom discussions.





#### Improved oracy skills of pupils

Teachers at the school say they notice an improvement in children's oracy skills as Explorify activities encourage them to speak in class and use more scientific vocabulary. To further develop these skills, pupils are encouraged to explain their observations from Zoom In, Zoom Out and What just happened? using "I think....because..." statements, as they would when describing images in writing. Using Explorify also encourages pupils to use descriptive words to describe things like colour and texture, in order to expand on their answers and as part of their why' explanations.

As a result of the successful trial, and the positive impact that Explorify has had on pupils with EAL, the STEM lead plans to cascade it throughout the school and encourage all teachers to embed Explorify in their science lessons.

"The more I've used Explorify over the last few weeks, I have thought I need to do [a session on Explorify] at one of the staff meetings. As we come into the new term, it's something that I want to show to all staff." **STEM lead** 

For further details about Explorify and its impact a full independent evaluation report can be found here.