



Yarm Primary School

Using Explorify to deepen pupils' scientific understanding

About Yarm Primary School

Yarm Primary School is part of the Enquire Learning Trust located in Stockon-on-Tees, a market town in County Durham between Middlesbrough and the North Yorkshire Moors. The school has 351 pupils aged 3 to 11. The percentage of children eligible for free school meals is 6.7%, compared to the national average of 24.6%. Ofsted recently rated it as 'Good.'

How Yarm Primary uses Explorify¹

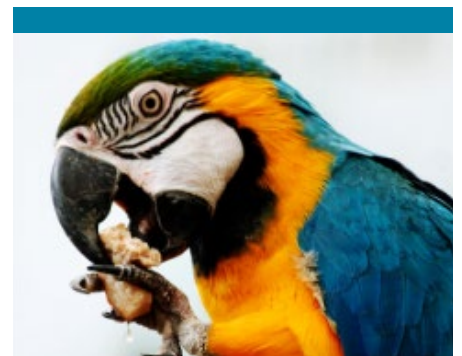
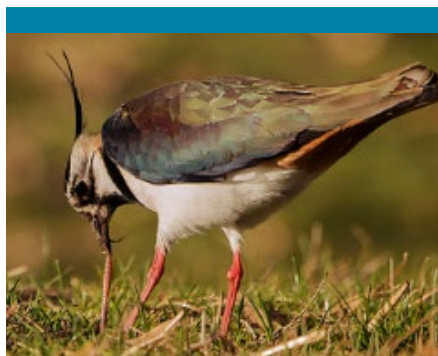
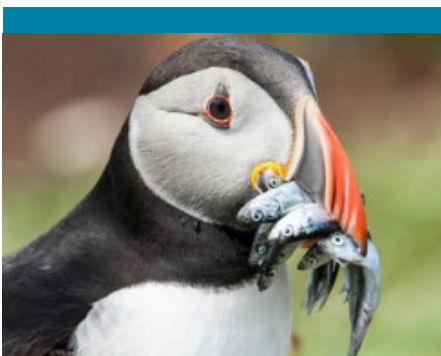
The Primary Science Teaching Trust introduced Explorify to the science leader in 2022. They initially used the "Science Leader Toolkit" to link Explorify to lesson plans and to support the sequencing of scientific vocabulary within the curriculum. It is now used across the whole school in a variety of ways and, according to the science leader, the versatility and quality of the resources are key benefits.

Teachers report that quick and fun activity types like "What if ...?" and "Odd One Out", promote collaboration, scientific discussion and debate among the children and encourage them to share their prior learning and think like a scientist.

How science is taught at Yarm Primary

Eleven teachers at Yarm Primary teach science weekly as a standalone subject for 1.5-2 hours. Teachers report that science topics are, included in other activities wherever possible, such as guided reading and assemblies. The science leader's role is to raise the profile of science, provide coaching and support to other teachers, and establish protocols for the teaching of science through the use of lesson plans, which include links to Explorify. They have also established partnerships with scientists working in industry and research. The science leader collaborates with other schools in the Enquire Learning Trust to raise the profile of science. The Trust is currently developing a primary science curriculum, and the plan is to embed Explorify throughout this curriculum.

"Staff love Explorify because of the quality of the resources and the quality of the guidance and the signposting as well." **Science Leader**



Odd One Out - Perfect Pinchers

Early career teachers (ECTs) and those who are less confident in science particularly value the background information provided in Explorify activities. The science leader reports that it helps ECTs to develop a fuller understanding of the subject and gives them the confidence to ask more open-ended, probing questions during lessons. This helps the children develop their own knowledge. For example, the “Run the activity” section supports ECTs to engage pupils in richer group discussions, which in turn helps to develop children’s oracy skills, as well as their scientific understanding. ECTs use the “Take it further” sections to help children make connections with other science topics and to previous learning.

“Explorify is supporting some of my less experienced colleagues, particularly ECTs, with their subject knowledge, because below the activity it gives you the background information.”
Classroom Leader

Impacts of Explorify at Yarm Primary

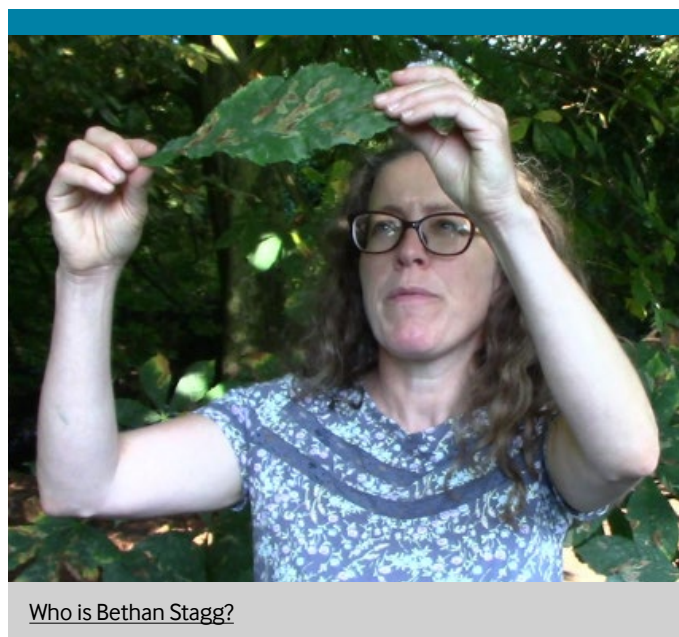
Building pupil confidence

The “Zoom in, Zoom out” activity effectively encourages children, who usually lack the confidence to participate in class discussions, to contribute and explain their thinking using scientific vocabulary. Teachers also note that because there is no right or wrong answer to the “Odd One Out” activities, this helps to further build children’s confidence and willingness to contribute to class discussions.

Lesson planning and delivery

Teachers state that the comprehensive background information and activities in Explorify provide them with resources that help to reduce their workload and the amount of time required for science lesson planning. Explorify also supports teachers to develop their science knowledge and confidence and achieve intended learning outcomes whilst making science fun and engaging for pupils. This in turn has increased children’s interest and curiosity towards science.

Teachers at Yarm Primary report using the “Who is...?” videos to introduce older children to different STEM careers and the routes into them. The videos often help to stimulate classroom discussions and prompt pupils to ask in-depth questions about careers, such as ‘what made the person in the video want to do a particular career?’ and ‘what subjects did they study at school?’ Videos are also used as lesson starters, to support and extend learning, for example, showing outcomes of experiments if there has not been enough time in the lesson to continue with practical investigations.



The “What just happened?” activity types for young children aged 3-5 explore scientific concepts and aims to increase subject knowledge and science vocabulary. Children take part in these activities during carpet time when they are using iPads. Early years teachers link these activities to what is happening during outdoor play. For example, when it is icy outside, they make connections to activities on ‘freezing’ in Explorify.

The science leader reports that Explorify is integrated into extra-curricular activities, such as their science club, where “Problem Solvers” activities, such as ‘Protect your ears’, are used to support school science challenges.

The “What’s going on?” “Listen, what can you hear?” and “Zoom in, Zoom out” activities have enabled Yarm’s early years teachers to increase the practical scientific content in their lessons. As a result, children in this phase now engage in more concrete, firsthand learning experiences in science and, according to the science leader, these children have started to use scientific vocabulary more frequently. This provides a firm foundation on which to build on pupils’ scientific knowledge in subsequent years.

“Explorify has really helped to add practicality and context to science for younger children. They love the visual-ness of it, they love the interactivity of it, they love the real-world examples.” **Science Leader**

Assessment

The science leader reports that using Explorify for lesson starters and retrieval tasks helps classroom teachers to undertake regular, formative assessments of children’s science learning, and they can more easily identify gaps in their scientific knowledge.

The visual content of the Explorify activities supports inclusive teaching and encourages children with additional educational needs to engage in scientific discussions with their teaching assistants and peers. This helps teaching assistants to assess the verbal skills of these children more effectively.

“When it comes to our assessment processes, Explorify has allowed children to express themselves in a way that makes it much easier for teachers to assess them.” **Science Leader**

For further details about Explorify and its impact a full independent evaluation report can be found [here](#).