

Digital resources case study: Fiona Maher

ENHANCING STEM LEARNING THROUGH INNOVATIVE TEACHING RESOURCES

STEM enhancement for primary pupils

Fiona is a specialist higher level teaching assistant at St Peter's Catholic Primary School in Essex, where she has specific responsibility for developing a STEM curriculum at the school. Each week she runs a STEM enhancement activity for each class in the school, which sits alongside the science curriculum and enhances the pupils' learning.

"I loosely look at what the children are learning in science, and I also look at their topic work. For example, year four are doing electricity at the moment, but they're also learning about Norway and about the environment. So I can relate my STEM lessons to either of those topics."

"The STEM Learning website is brilliant. When I know what I'm going to teach, I will do a search to try to find something that relates. I also find the newsletters really helpful as they point me to new resources that I haven't discovered yet."

Fiona found out about STEM Learning's resources when she was searching for STEM resources suitable for primary pupils. The science lead at her school is also a member and recommended the digital resources. Fiona attended one of STEM Learning's courses, 'Introducing Working Scientifically', which gave her an in-depth insight into how to use the website.



Building confidence

Fiona has enjoyed testing different activities and resources from STEM Learning, and finds that they are good at building confidence in her pupils.

"They love them. I did two years at secondary school as a progress mentor in the science department and often was seeing girls 'giving up' on science, on anything practical.

It's lovely to see how engaged our kids are with these resources. They really love the engineering side of it; they listen, they follow instructions and they're really interested in it. It's a great resource."

Using the resources

"I only have the children for 45 minutes to an hour; it goes really quickly. I might pull out pieces from a resource that I can do within that time, or I might break it down into a project which we will work on over several weeks. Sometimes I use it straight off the shelf, but usually I will read through it and tweak the activities to fit our timetable."

"This is my first year in post. I'm trying to create a curriculum that I won't have to then redo next year. I'm trying to keep it year specific and do a different activity with every year group. We've also run a whole school challenge from the resources online about building bridges."

Fiona has found the [Engineering Fairy Tales](#) resource a fun, engaging activity for her pupils. "I've been able to do a different fairy tale with each year group and they are really interesting. The nice thing about our STEM lessons is that it is a bit of a break for them, from the normal way that they learn, so they're always quite excited. They look forward to my lessons. So that is a good sign!"

"These resources are great at planting the seed with the kids. With year five, we looked at the James Webb telescope project in detail. The children were going home and looking on the NASA website, following it up in their own time, and they keep asking me about it. That's been lovely, seeing the children have gone home wanting to know more and more about it. That all came from finding an exercise on the STEM Learning website."



Engineering Fairy Tales

Children's stories provide a great context for learning science. STEM Learning offers a selection of resources based around popular children's books which discover the science hidden in a book. Resources include book summaries, hints and tips for teaching the science, and further stories on a similar theme.

For example, the collection [The Gruffalo – Identifying and naming animals](#) shows how the story of The Gruffalo® can be used to explore identifying and naming animals as well as learning about a woodland habitat.

