

STEM THROUGH STORIES

More than 150 schools throughout Scotland are delivering impactful STEM lessons to primary pupils, using stories as a hook to engage and explore scientific concepts.

RAiSE National Education Officer Laura McCafferty led upon professional learning which provided a clear way to incorporate STEM learning into their practice during the Covid-recovery phase focus on literacy, numeracy, and health and wellbeing.

Laura developed planners which encompass an interdisciplinary approach using stories as a context for learning.

The Gruffalo, Charlie and the Chocolate Factory, and Goodnight Mister Tom, were developed initially, with teachers requesting a focus on titles including The Very Hungry Caterpillar, The Iron Man, and Wonder.

There were also planners created with a Learning for Sustainability focus to align with COP26 using titles including Somebody Swallowed Stanley, Eco Wolf and the Three Pigs, and World Burn Down to address early, first and second level.

The professional learning led teachers in Falkirk, Dundee, Renfrewshire, South Lanarkshire, Orkney, and Clackmannanshire through a step-by-step process to populate planners.

Laura said:

“It has been an incredibly challenging time for schools and teachers have had to prioritise in terms of the drivers set out for Covid recovery in the curriculum. We know that STEM has an important role to play in engaging and motivating children, so I was keen to provide teachers with simple tools to incorporate it into existing workstreams to help deepen the learning opportunities.

“Stories and STEM have one incredible thing in common – imagination. Children are naturally curious so there are a very many direct links to be made to broaden their understanding and enjoyment of a text through practical, hands-on STEM.”

One teacher focussed on Beetle Boy, a book her P6 class were already reading. The topics covered included:

- Made beetles using spoon back
- Researched, analysed, classified, and displayed relevant information on cards which then went on an entomology topic board
- Studied and researched star constellations and made some from marshmallows and skewers
- Studied shadows and made shadow puppets
- Researched beetle life-cycles, habitats, species before going on a bug safari in the woods making bug hotels, and collected some for the class terrarium. The children cared for the bugs before releasing them back to their habitat.
- Studied trees, and identified leaves and measured trees to age them
- Explored careers in STEM and using myworldofwork.com
- Made beetle jewellery having studied Egyptian beliefs and the link to modern day jewellery
- Hosted Light Week studying light, refraction etc, as well as making a firefly lifecycle and electric light circuit

The teacher said: "Thank you so much for this course and resources. I have been raving about it to my whole school."

Feedback from other practitioners included:

"Super, easy to follow planners - saving a lot of time looking for ideas, so thank you very much!"

"I think for me this information on how to teach STEM through Stories is important long term as I will plan to teach this in future classes."

"Being shown where to directly access the planners and talked through how to follow them was most beneficial."

All of the resources are freely available here:

<https://drive.google.com/drive/folders/1vIA47m6m1oh1Qg4HUGDNc6I2UU4-5za?usp=sharing>

For additional support on developing STEM through Stories, please contact your local Primary Science Development Officer (PSDO) if you are an active RAiSE authority.













