

RAiSE

Raising Aspirations in Science Education

St Sylvester's Primary School adaptation of the YESC Little Lighthouse Project into an IDL within a local context.

Thursday 24th May 2018

Case Study

During a visit by the RAiSE PSDO for Moray to St Sylvester's P4 class, it became apparent that the class teacher Brenda King and her class had taken the premise of the YESC Little Lighthouse project and expanded upon the work to incorporate more opportunities for development of literacy and numeracy.

YESC approached Moray Council's Digital Learning Team to work with a number of schools in Moray. The teachers had CPD training on The Little Lighthouse Project & kit and each school was given a kit to use with a class.

There are a number of Lighthouse's in the local area that pupils researched. The Museum of Scottish Lighthouses is in Fraserburgh and as well as encouraging visits, they also have Loan Boxes and scope to come out to schools to visit you. Brenda also used the Lighthouse Keeper's Books by Ronda Armitage as part of the Little Lighthouse Project. After reading these pupils wrote their own stories about their lighthouses.

Rationale

The Little Lighthouse project already covers numerous Science, Technology, Social Studies, Literacy & English E&Os at First Level and has eight sessions which could be covered in a term. Brenda was keen to use this context to develop some key numeracy and literacy skills with her pupils including:

- Accurate measurement - stripes were carefully measured to make them equal width.
- Research Skills—use of the internet to find out more about local lighthouses
- Reading - use of the series of Lighthouse Keeper Books linked to this context encouraged more reluctant readers in her class

Is it for me?

This case study will be of interest to teachers of first level who are looking to use STEM as a context to develop literacy and numeracy skills.

What does it cost?

YESC Little Lighthouse Kits cost £150 and can be ordered from :

http://www.yescotland.co.uk/kit_order_form.html

Where can I find out more?

Young Engineers & Science Clubs
Scotland: yesc@scdi.org.uk

Museum of Scottish Lighthouses:
<http://lighthousemuseum.org.uk/> has a Primary School Visit Information Pack

Janey Irving; the RAiSE PSDO will be more than willing to discuss any queries you may have and assist in any way with developing similar IDL projects within your school.

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- Writing—pupils wrote their own imaginative stories of the lighthouse keeper
- Presentation skills—all pupils in the class contributed to a presentation about their learning presented to visitors and parents

Benefits

Pupils had the opportunity to learn a huge number of STEM E&Os within a defined context.

Section 1 – Shedding light

Social studies – People, past events and societies—SOC 1-02a, SOC 1-06a

Numeracy—MNU 1-01a

Section 2 – High height

Technology – Craft, design, engineering and graphics contexts for developing technological skills and knowledge—TCH 0-12a/TCH 1-12a, TCH 1-13a, TCH 0-14a/TCH 1-14a

Numeracy links – shape, position and movement

Section 3 – Lighting Up

Sciences – Forces, electricity and waves—SCN 0-09a, SCN 1-09a

Section 4 – Sunlight

Science – Planet Earth—SCN 0-05a / SCN 1-05a

Social studies – People, past events and societies—SOC 1-12a

Section 5 – Sound waves

Sciences – Forces, electricity and waves—SCN 0-11a/SCN 1-11a

Section 6 – Light bites

Sciences – Planet Earth—SCN 0-01a/SCN 1-02a, SCN 0-03a/SCN 1-03a

Health and Wellbeing – Food and textiles context for developing technological skills and knowledge - HWB 0-30a/ HWB 1-30b, HWB 0-35a/ HWB 1-35a

Section 7 – Light delights

Technologies – Computing science contexts for developing technological skills and knowledge—TCH 0-09a / TCH 1-09a

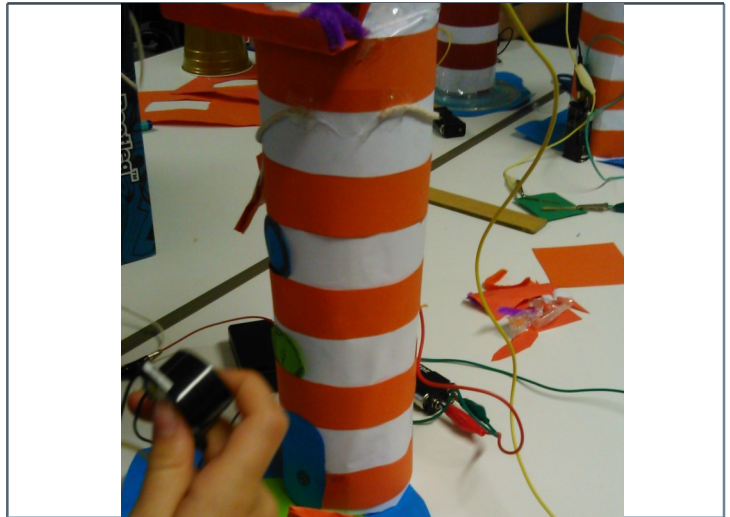
Technology – Craft, design, engineering and graphics contexts for developing technological skills and knowledge—TCH 0-12a/TCH 1-12a, TCH 0-15a/TCH 1-15a

Science – Planet Earth—SCN 0-06a/ SCN 1-06a

Science – Forces, Electricity and waves—SCN 0-07a/SCN 1-07a, SCN 1-08a

Section 8 – Lighting the future

Technologies – Technological developments in society—TCH 0-01a/TCH 1-01a, TCH 1-01b

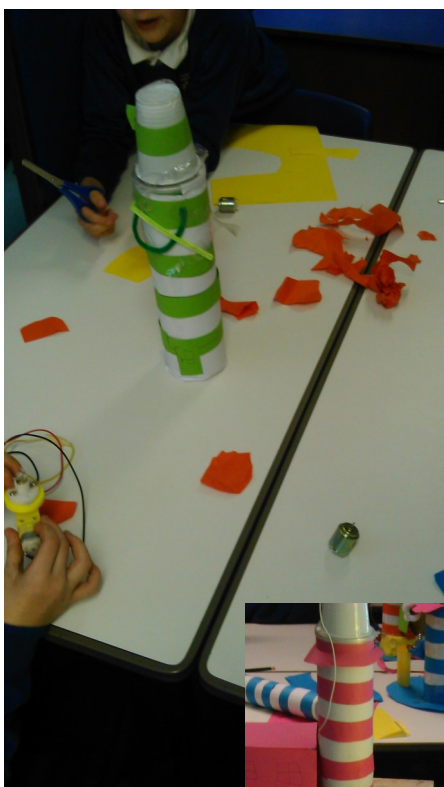


Impact

The CPD training provided had ensured that the teachers were confident to deliver the STEM E&Os that are part of the Little Lighthouse Project. This had directly impacted on Brenda's approach in the classroom and to the IDL growing organically to better meet the needs and interest of the class and to her being comfortable to incorporate more opportunities for development of key skills that were a class target for the session.

Using STEM as the hook for learning had led to actively engaged and very enthusiastic pupils who were keen to share their learning with others (as evidenced in the visit by myself as PSDO and in the parent visit) . Some more reluctant readers/writers were encouraged to write their stories as they saw the links to what they were learning and enjoying.

Feedback from parents following the shared learning event was very positive and it was clear that this approach had led to positive outcomes for the pupils and specifically impacted on their literacy skills.



This case study has been prepared by Janey Irving.

The views contained in this document are those of the author and do not necessarily represent those of the RAiSE Project, Education Scotland, and/or The Wood Foundation.

