



Case Study

Shawmhor Early Years Centre is in the south side of Glasgow in an area with a SIMD Decile ranking of 5. It provides child care and learning for up to 134 children at any one time, aged from 6 weeks to 5 years.

STEM learning is embedded throughout their learning areas with an emphasis on the children exploring and investigating. They have implemented some particularly interesting, but simple and inexpensive, approaches.

Sand 'floor'

Rather than the traditional sand tray, sand is spread over an area of floor. Contained on three sides by windows and units, pupils can freely walk in and out of the. Within the area, children are



encouraged to investigate the properties of the sand using pipes and supports, and it is located close to the water area to encourage mixing and further exploration.

Donated cable drums are used as tables and/or stools. While there is some spread of sand into the room, this is easily swept up and no more of an inconvenience than with a sand tray.

Activity Centres

In each of the rooms, STEM is apparent in various activities: the pouring station; dinosaur egg hatching tray; floor drawing cars. Children are supported by adults, however, have a free choice to move from activity to activity and explore them through free play.



Tinker Table

Bits of old tech (computers, telephones, etc) are provided for children to tinker with. Simple tools are provided to allow children to dismantle and investigate the internal construction.

STEM in Action at Shawmhor Early Years Centre

September 2017

Is it for me?

This case study will be of interest to practitioners delivering STEM at Early and First Levels.

What does it cost?

Many of the resources were already available in the centre or donated and/or purchased inexpensively from charity shops.

Where can I find out more?

Shawmhor Early Years Centre
61 Nether Auldhouse Rd, Glasgow G43 2XG
Phone: 0141 637 0314

Fiona Penman, Head Teacher - Email:
headteacher@shawmhornursery.glasgow.sch.uk

If you need support in running your own event please contact the RAiSE Team -

Karen Creighton:
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Centre staff are on hand to reinforce learning through questioning and engage the children in thinking about how things works.



Building Site

Although they have relatively limited outdoor space, it is put to extremely good use. In one area, the centre has created a building site following a project supported by a SSE. A box of hi-viz vests, hardhats, and ID badges are available to children to use in their role play, and the area is marked with barriers and site safety signs. Even in dry weather puddles are a feature, and flower beds have been removed and allowed to remain as bare soil. Children are encouraged to construct and explore with a range of pipes, pallets, bricks and other scrap materials donated to the centre.

Displays

Displays appear throughout the Centre recording STEAM (Science, Technology, Engineering, Arts and Maths) activities. Photographs of children at play and their creations are shared with parents through these displays.



Gender

Throughout the centre, neutral colours and natural materials were predominant. The house corner was decorated and accessorised like a real home. Resources came from charity shops rather than using commercial children's toys which often reinforce 'pink for girls/blue for boys' stereotypes. This created a very gender-neutral environment and activities were being enjoyed equally by both boys and girls.



Learning

Children were clearly highly engaged with the activities. They could talk confidently about what they were doing, and it was clear that STEM exploration and investigation was embedded across the Centre.

Rationale

Shaw Mhor EYC is part of Hillpark Learning Community which in January 2014 were invited by Education Scotland to participate in the STEM project. The Curriculum for Excellence(CfE) is enabling new and exciting opportunities to make STEM education stimulation and exciting for all children. The principle of CfE is to teach skills for learning, skills for work and skills for life, and the vision of the STEM project is investing in Scotland's children for the future development of Scottish Industry.

Benefits

At an early age both boys and girls happily participate in STEM activities. Engaging children early is an important step to addressing issues of gender equality in STEM careers. Parents also tend to be more involved with early years centres, and sharing this learning with families is effective in raising science capital. The staff team have embraced STEM learning through purposeful play and the Centre's approach to learning is 'Active learning' which engages and challenges children's thinking using real life and imaginary situations.

Are you doing something interesting? Trying something new? If so, we'd love to hear from you. Contact any member of the RAiSE team to share your experiences. (Contact details above)
