

Effra Early Years Centre

STEM Policy

Date agreed June 2017	Review Cycle 3	Due for review June 2020
Signed		

"An appropriate curriculum in the early years is one that encourages and motivates children to seek mastery of basic academic skills in the service of their intellectual pursuits," such as reasoning, hypothesizing, predicting, as well as the development and analysis of ideas. These higher level thinking skills are the educational goals of STEM curricular projects."

Lilian Katz 2010

At Effra Early Years Centre we believe our children should be given every opportunity to reach their potential. We believe that by providing a wide range of exciting and engaging learning opportunities that sit neatly within the expectations of the Early Years Foundation Stage Curriculum, allows our children to achieve at the highest level.

Science, Technology, Engineering and Maths (STEM) are four aspects we make provision for within our weekly provision.

All young people should be prepared to think deeply and to think well so that they have the chance to become the innovators, educators, researchers, and leaders who can solve the most pressing challenges facing our nation and our world, both today and tomorrow.

STEM in Early Learning

How do we deliver STEM?

We deliver the STEM curriculum as an integrated approach within the EYFS. We plan for specific core books that support the STEM curriculum, we plan off site visits to support the learning and invite visitors in to excite and enthuse children about the curriculum.

Children do not differentiate between their usual activities and STEM activities, to them it is all fun play based learning.

We use opportunities such as British Science Week to provide a focus for some aspects of what we plan for the children.

At Effra Early Years Centre we have reflected on why a STEM curriculum works for nursery age children.

Nursery children are:-

- Naturally curious and questioning about the world around them.
- Early learners are natural scientists.
- STEM education sparks a child's interest in science, technology and math.
- Foundations of scientific learning are inquiry and exploration; both are elements of STEM.
- STEM encourages developmentally appropriate instruction as children explore the world around them.

Getting young children to think, try and achieve

Some children appear fearless in their pursuit of knowledge and experiences, while some are far more tentative about trying things out, or can be fearful of mistakes. Some give up quickly when 'the going gets tough' and some children think they are not 'clever' enough or that everything is 'easy'.

Through our targeted focused teaching in the EYFS and STEM curriculum we work to break down barriers to learning potential.

To support us and the children in the endeavour we also work with the children to develop a 'Growth Mindset'

At Effra we are interested in children's mindset and how we can create motivated learners who embrace challenge, learn from setbacks and know that they can grow their intelligence. Based on the work and research of Dr Carol Dweck, it is our intention that, as well as ensuring our children approach their learning with an effective mindset, we enable them to embrace skills which will prepare children for lifelong learning.

Challenge

Enjoy and seek out challenging and difficult learning opportunities. Have a belief that they will learn and improve with effort. Be open-minded and flexible to change. Take an ambitious approach to life at Effra. Find ways to solve a problem.

Empathy

Show empathy and care in both a nursery environment, inside and outside. Show respect for themselves, each other and the environment.

Perseverance and Resilience

Be persistent and not give up when faced with things that are difficult. Try different approaches to find what works. Ask for help when needed. See that there is no failure, only feedback and that this feedback will help them to improve and grow

their intelligence. Be keen to learn strategies to help them improve, deal with change and accept feedback positively.

Originality

Be imaginative and come up with original ideas. They are adaptable and will think of alternative suggestions to problems.

Curiosity

Ask lots of questions and be keen to find out the answer to problems. Enjoy discovering and exploring new things.

Collaboration

Work well in a group or with a friend, sharing ideas, negotiating and compromising where needed. They are supportive of others and are a good listener.

Reflection

Make plans and follow them, thinking carefully about the next steps. Be organised, prepared and analytical.

Make links between ideas and spots similarities and relationships. Able to apply their learning to different settings.