

Driver Diagram: STEM 20/21 – Priority 2

Aim – states what is to be achieved, how good and by when.

By June 2021 100% of our learners can demonstrate increased confidence in problem solving, communication and resilience through our STEM curriculum.

Through professional reading, all staff will demonstrate an increasing understanding of the role of STEM in promoting achievement and attainment of all.

Through accessing our STEM hubs (first and second) and our Wonder zone the children will have the opportunity on weekly basis to engage in learning that is pupil led. The adult's role is to facilitate.

By June 2021 we will have created and signposted families to STEM related learning at home.

Primary drivers – needed for the aim to be achieved.

Pedagogy: ongoing CLPL supports staff developing understanding of highly effective learning and teaching within STEM.

Critical Reflection: Through opportunities provided, staff will engage in critical reflection around aspects of STEM with a view to inform whole school planning and assessment.

Staff will critically reflect on their observations through the Leuven scale.

Resourcing: Promote staff independence in resourcing STEM challenges (and allocation of PEF money).

Secondary Drivers – our theory about what needs to be in place to deliver the primary drivers.

1. All staff will participate in CLPL through Education Scotland, RAiSE, Falkirk RAiSE officers and SLT directed professional learning
 2. Developing staff confidence and understanding through sharing practice, professional dialogue, team teaching and observations, and planning across a level. 'Looking Outwards', link up with Bankier Primary School and GHS Science Departments.
 3. Timetable classes to access the STEM hub both independently from and with the classroom teacher. Teaching staff to build in opportunities for children to share their learning both in and out of the classroom and the STEM hubs.
 4. Staff while resourcing and planning for STEM based activities should ensure they incorporate literacy, numeracy and HWB experiences that will increase attainment and achievement.
 5. Staff should consider how to utilise our outdoor areas for STEM based learning e.g. garden, courtyard.
 6. Through the development of our Lead Teacher role, support staff, other teacher leadership and quality assurance processes throughout the year, we will ensure the highest quality learning experiences for all of our learners.
- This will also address the totality of leadership and a collective responsibility for developing our STEM curriculum,

Ideas: what could be tried out in practice: **PDSA tests**

Using the Leuven scale of engagement and ranking scale of confidence in STEM we will evidence increased engagement in STEM learning.

Staff will be provided with time and space to engage in critical reflection of professional reading which relates to STEM and our rationale at St Margaret's Primary e.g. HGIOS4, STEM strategy.

STEM challenges created by Falkirk Council RAiSE Officer, are designed to support an IDL approach and extend children's learning. Transferable skills in relation to the STEM agenda, Falkirk Council Skills Framework and Developing Young Workforce will increase pupil confidence in problem solving and develop an enquiring mind.

Building on risky play, pilot risk assessed projects at all curriculum level e.g. soldering, tinkering, food technology

Develop a P6 project with Young Enterprise Scotland based on the Circular Economy working in partnership with local industry.

Introduce STEM Ambassadors in P6 and P7 in conjunction with STEM East.

Develop our approach to young STEM leaders in P5-7.

Creation of family learning in STEM which incorporates all of the Science Es and Os.

Create homework learning experiences (similar to the template adopted during lockdown) which further extend family learning opportunities.

Develop our approaches to monitoring achievements and quality assurance of learning.