

# *Single Steps Learning*



## **Designing for Learning with St. Peter the Apostle Learning Community**

*\*The rationale for the project is to address the need to improve pupil skills in STEM and their application to real life problems through the provision of high quality learning experiences supported through effective resource provision, improved awareness of pedagogy and the enhancement of pupils' Skills for Learning, Life and Work.*

Training by Single Steps Learning will specifically address the first aim of the project:

- *\*'training for teachers in designing problem-solving scenarios as a context for learning'; with an outcome intending that:*
- *\*'Staff provide engaging, challenging experiences for pupils, developing pupils' ability to work collaboratively on STEM related challenges.'*

*\*From 'Access to Education Fund – Vale of Leven Application Form'*

Rationale for how our training supports the above aim and outcome

Science, Technology, Engineering and Maths all have subject-specific knowledge and skills. They also have transferable skills e.g. measuring, recording, interpreting data etc. – most of which can be learned through direct teaching.

However, if the purpose of schools is to prepare learners for life 'beyond the classroom', then they need opportunities to apply, explore and develop their knowledge and skills in 'real-life' contexts.

STEM professionals frequently work in teams or collectives. Working collaboratively requires additional transferable attitudes, skills and knowledge in order to be efficient, effective and maximise potential. – 'skills for learning, life and work'.

Despite possessing subject-specific knowledge and skills, learners can fail to solve problems and apply their learning effectively if they do not possess the 'skills for learning, life and work' - the 'how' of real-life collaborative problem-solving. In addition, a learning community needs the right climate in order to grow and flourish.

Our training is **not** training in specific STEM knowledge and skills. It is training in **designing** those **learning experiences** which allow learners **purposeful opportunities** to **explore, apply and develop** their STEM knowledge and skills. It offers a pedagogy for creating a learning environment which fully nurtures and supports a collaborative problem-solving community. Embedding the principles behind this culture should also impact beyond STEM as it integrates and supports development of growth mind-set, independent learning, formative assessment, interdisciplinary learning and reflective practice.

The following page contains our course descriptors. Although not explicitly stated, in this bespoke design we will be connecting the content to the STEM aims and rationale stated

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above. In addition, it our intention that by making explicit connections, participants will understand how they can provide opportunities for and exploring and reinforcing STEM strategies, skills and attitudes through a variety of activities which may not fall under the STEM subject headings.

### **Designing for Learning: Step 1 and Step 2**

***Designing for Learning: Step 1 will take place over 3 consecutive days\*. There will be a gap of 4-6 months for practitioners to begin to implement the tools and strategies, before returning for Step 2 - an additional 3 consecutive days\*.***

*The training is carefully linked to local and national priorities at an implicit and explicit level.*

Step 1 and 2 are designed to engage practitioners in experiential learning, exploring first-hand the use of tools and processes that support the development of a collaborative, problem-solving learning community. Throughout the training, guided reflection allows participants to consider the transfer of strategies to their specific setting. It explores how principles for curriculum design can be brought to life in real settings with real learners, enabling practitioners to further understand, inspire, challenge and unlock potential for learning.

Participants will experience a range of tools and strategies designed to:

- assist in building inclusive collaborative, problem-solving learning communities
- make skills and attitudes 'visible' and 'measurable' in order to purposefully develop them alongside curriculum content;
- enhance reflective practice and formative assessment

Participants will have the opportunity to:

- apply tools and strategies in a purposeful context
- engage in professional dialogue with peers
- reflect on their own learning and perspectives on learning
- consider linked learning experiences

Reading and graphic materials will be made available which:

- outline the 5 Key Concepts of 'Designing for Learning'
- outline the designing of problem-based tasks
- support the implementation of tools and strategies in settings

**\*The course is not modular, so participants need to attend the full 6 days training as each of the experiences are linked and progressive.**

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