

QUESSIE Newsletter August 2017

Dear **QUESSIE** Member

My passion for Science, Technology, Engineering and Mathematics (STEM) Education and my commitment to lifting teacher capacity in these areas are well known. As the need for creative, critical thinking and problem solving students becomes even more apparent, how we tackle “educating the educator” is a key factor in how successful our students ultimately will be. Change must be both logical and digestible to gain traction and buy in. Teaching staff must see the value in developing skills specific to this exciting space. The questions asked by the teacher in a STEM lesson will have a direct impact on the learning that takes place.

Reflection, modification, engagement and collaboration play an important part in the journey....

Reflection – Successful STEM educators reflect on the systems already present in the classroom. One of the ways teachers become true STEM champions is by recognising that sometimes small, focused tweaks are what is needed to lessons, activities, and classroom questioning techniques, not necessarily wholesale change.

Modification – Transforming questioning to include words like “design”, “model”, “create” and “experiment” is one example of a small change that can lead to an environment that supports and encourages STEM learning. Classrooms should be rich with opportunities to investigate and explore. Educators sometimes need to take a step back and let the magic happen.....under teacher supervision of course.

Engagement – A component of a successful STEM lesson is to begin with a rich task; one that students will be engaged in and that has a challenge for them to solve. My preference is that this rich task has real life context. An inquiry-driven lesson that sparks student curiosity is one that will likely provide a most effective STEM learning opportunity.

Collaboration – Educators sharing ideas and experiences related to their craft are a must in lifting teaching capacity. Like our students, teachers need to take calculated risks in the STEM space. What happens after the risk taking will, in the hands of a skilled teacher, always provide a rich learning experience. So why not share these experiences with students and your colleagues? Through collaborative discussions, teachers are reminded how integrated curriculum is supported through STEM, as the principles of critical thinking, asking good questions, observation and exploration, are found at the centre of every discipline.

Best wishes

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Reference :-

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