Overview

What makes an engaging and meaningful learning task for an adolescent boy? Adapting Simon Sinek's Golden Circle, we developed an inquiry-based approach to learning that centres around a big why linking learning to real-world problems involving future concerns. In this workshop, we will share resources, our approach to change management, evaluation of changes and outline future intentions.
Have you ever been asked?
Dilemma

• Most boys love science
• Already engaged by practical work / experiments
• Do they link their learning?
• Is this the best way to teach science?
So many models!!
Solution
WHY?

- Centre of the model

- “...a stronger emphasis on the why allows for more critical thinking in the classroom allowing students to dig deeper and more meaningfully into the goal behind their journey after knowledge.” (Dakkak, 2012)
Dilemma

• How to address mandated curriculum
• Sufficient knowledge construction
• Managing resources e.g. textbook?
Required knowledge (what do I need to know/find out?)

Knowledge construction imperative to adequately address the big Why?

Possible resources
Design-thinking model
Do (21CLD)

To DO could mean to...

- Build
- Prototype
- Experiment
- Predict
- Compose

Skills include...

**CRITICAL THINKING**
- Gathering information
- Interpret and analyse
- Reason
- Construct arguments
- Problem solve

**COLLABORATION**
- Initiative
- Leadership
- Cooperation
- Support
- Shared responsibility
- Constructive feedback

**COMMUNICATION**
- Effective listening
- Writing for purpose: to inform, persuade and/or entertain
- Communicate using digital media
- Engage in conversation, discussion, decision-making
- Communicating to a variety of audiences and in a variety of environments

**CREATIVITY**
- Designing and refining ideas
- Risk-taking
- Analysis of ideas
- Creating with others
- Innovation and production

Sample Collaboration Space
Review

- Checkpoint questions throughout explore
- Assessment structure
- Peer evaluation
- Formative feedback
- Summative feedback
Paramount to success:
• Combination of existing models tailored to suit our context and needs
• Teacher buy-in
• Cross-curricular links
• Student engagement
References


Science is a way of thinking much more than it is a body of knowledge.

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For a complete unit: