Solve IT! Numeracy Booster Project - Year 7-8

Solve IT boosts numeracy knowledge, skills and confidence via a targeted and engaging numeracy program. Students develop specific problem-solving skills and strategies via the See, Plan, Do, Check approach.

Solve IT is a Booster Project for students in Year 7-8. It is anticipated that most schools will include Year 8 students in Round 2 and Round 3. Schools can include students from one year level or form a composite group.

The target group for Solve IT is students who reached the second and third top band in NAPLAN numeracy (Band 6-7 in Year 5 or Band 7-8 in Year 7). Participating students should be aspiring to reach the Upper 2 Bands in numeracy.

Content & Assessment Guide

<table>
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<th>Lesson No.</th>
<th>Lesson Focus</th>
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| 1          | Project Introduction, Technology Introduction  
Introduction to the project content and web conferencing technology. |
| 2          | IMPACT and See/Plan/Do/Check  
Introduction to IMPACT workflow via focus on See/Plan/Do/Check. eLearn tour and practice quiz. |
| 3          | Pre-assessment  
Practice quiz then pre-assessment quiz in eLearn. Brief review of IMPACT workflow via focus on See/Plan/Do/Check. |
| 4          | Addition and Subtraction Problems - Part-Part-Whole  
Identify addition and subtraction operations and represent the situation using appropriate numbers/symbols. |
| 5          | See the Parts and Visualise Objects  
Geometric and proportional reasoning, nets of 3D objects, angles and perspectives (view points). |
| 6          | Spaced Learning – Lesson 4-5 topics  
Reinforcement and re-exposure to consolidate and extend prior learning. |
| 7          | Multiplication and Division Problems – MAD Triangle (2 lessons)  
Identify multiplication/division operations and represent the situation using appropriate numbers/symbols. Relate skills to rates, ratio, scale, and financial reasoning. |
| 8          | Find the Pattern or Rule  
Identify number patterns in ‘real life’ scenarios and apply rules to solve more complex patterns. |
| 9          | Spaced Learning – All topics  
Reinforcement and re-exposure to consolidate and extend prior learning. |
| 10         | Post-assessment  
Practice quiz then post-assessment quiz in eLearn. Design challenge – create and share problems for peers to solve. |
| 11         | Where to From Here  
Review, consolidate and extend on project learning. Celebrate success. |

**NB: This is a guide only – there may be minor changes.**

**Key Points**

- The content focuses on developing problem-solving strategies and is influenced by data from the QCAA’s 2010-2014 item analysis which enables identification of trends for students aspiring to the Upper 2 Bands.
- Students participate in 1 x 60-70 min web conference per week and access online extension activities any time.
- Students also connect with university and industry representatives via a special online event each round, including representatives from the School of Mathematics and Physics - University of Queensland.

**Student – CQ Region  
Solve IT – Round 1 2015**

“Before Solve IT I was having a little bit of trouble answering hard questions but now with this program I can whiz through any hard problem solving questions that my teacher gives me. Solve IT is helping me to get much better at doing very very difficult problem solving questions and to make them easier for me to work it out.”

**Student – SE Region  
Solve IT – Round 1 2015**

“Solve IT is really good because I met new people in my grade that I didn’t already know and I also have learnt more or better ways to solve maths problems. Solve IT is an awesome way to meet new people and learn more ways to solve problems!!!!!!!!!”

**Supervisor Feedback  
Solve IT – Round 1 2015**

“Great use of technology that is engaging for students. Interactivity is good both vocal and chat text. Those that are struggling get 1:1 help whilst others are given another step to move forwards. No one is ever just sitting there with nothing to do.”

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