National Computer Science School (NCSS) Challenge

In school, 5 week program
Term 3 (1st August – 4th September)
Primary (S3 - Years 5 and 6) and secondary (7-12) students

Description
The National Computer Science School (NCSS) Challenge is a computer programming competition for primary and secondary school student’s designed to provide a five week step-by-step in-school program which enables your class to learn how to code and improve their digital literacy. Run by Grok Learning, in partnership with the Faculty of Engineering and Information Technologies, students learn to code using Python 3.4. This is an easy-to-learn scripting language used by major online companies such as Google and Facebook for many different purposes including infrastructure, web applications and scientific research. Teacher professional learning is available to support the running of this program in your school.

Aims
- Engage schools in the learning and teaching of computer programming (coding) that makes it fun, accessible, and relevant
- Enrich students’ understanding of the range of careers and study options that computer programming/coding skills can be used in
- Enable the effective development of core skills (in STEM) through a focused skills enrichment activity

Project Specific Outcomes
As a result of this project students will be able to:

Knowledge:
- Demonstrate increasing mastery of coding by moving through Challenge levels

Skills:
- Use and reflect on the collaborative skills, communication skills and teamwork to solve problems

Values and Attitudes:
- Value the relationship between effort (at school) and future (goal) achievement through higher education
- Report increased confidence in the area of coding
Curriculum links

**KLAs:**

1. Science
2. Technology

**General capabilities:**

1. Literacy
2. Personal and Social capabilities

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**Model**

| Structure | - Schools must register themselves for the 5 week Challenge, per class involved
|           | - Class sizes registered for the Challenge should not exceed 30 students
|           | - Schools must nominate an approximately 1x1hr session for each week of the Challenge
|           | - Teachers will be provided with training as required, however Compass is not directly involved with the running of this program
|           | - Teachers and students can receive online support and tutoring throughout the Challenge via Grok Learning |

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<tr>
<th>School participants</th>
<th>- Primary (Stage 3- Year 5 and 6) and secondary (7-12) students</th>
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<th>Compass representatives</th>
<th>- Compass indirectly provide funding and registration support for this program. There are no Compass staff or volunteers directly involved with the implementation of the program, however Compass will fund a separate Teacher Professional Learning Day</th>
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| Other participants | - Grok Learning  
|                   | - Faculty of Engineering and Information Technologies |

| Delivery schedule | Dates:  
|                   | In school:  
|                   | Term 3: 1st August – 4th September (5 weeks)  
|                   | Approximately 1x1hr session per week |

| Monitoring and evaluation | - Student evaluations at the end of the Challenge  
|                           | - Teacher evaluations at the end of the Challenge |

| Materials and equipment | Compass to provide:  
|                         | - Paid access to the NCSS Challenge  
|                         | - Registration support |

| Schools to provide: | - Class teacher/s  
|                     | - Designated class time each week of the Challenge  
|                     | - Their own computer labs or laptops  
|                     | - Internet access |

| Resources | - Online membership with Grok Learning to register for the NCSS Challenge |

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**Key contact**

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