



## Project Purpose

Our aim is to increase the understanding of high school students about how science, technology engineering and maths (STEM) are used in real-world contexts, by allowing student teachers to experience first-hand the practical application of STEM skills within industry.

We want this experience to improve the student teachers' ability to inspire high school students and reinforce the value of learning and understanding STEM.

Our goal is to contribute to the development of industry's future workforce, and South Australia's STEM skills-based economy.

## How will we achieve this?

Student teachers will identify, translate and communicate a STEM-based industry issue and then work with research scientists and innovation professionals who will provide expert thinking towards addressing the issue and developing solutions.

This information will be presented back to industry by the student teachers accompanied by the research scientists and Flinders partners.

See figure below for further details.

## How can industry help?

The project requires student teachers (in groups of around three) to visit selected industry sites in October of 2016 on two occasions (each visit is 4 hours, i.e. 8 hours total).

These visits will allow student teachers to gain real-world experience with STEM skills and understand how they are used in industry settings. As part of these visits it would be helpful if industry provides:

- A tour of their business to showcase the products and services delivered.
- Access to professional industry staff members that utilise STEM concepts in their work, to offer knowledge and advice.

## How will Industry benefit?

With the assistance of industry personnel, student teachers will identify a real issue that could be addressed by applying STEM concepts towards possible solutions. Industry will be connected to research expertise through the student teachers' investigation of the issue and the assistance they receive from:

- Flinders Partners, experts in linking researchers with businesses; and
- Flinders University Research Scientists.

### Identify

#### Visit 1 1st week in October 4 hours at the industry site

The student teacher will **identify** where and how science, technology, engineering and maths is being used in your industry; and with your help, an issue/problem related to STEM in your industry.

### Translate

#### Analysis of Visit 1 between industry visits

The student teacher will **translate** the STEM problem into scientific approaches towards a possible solution; with help from a suitable **research scientist**, facilitated by **Flinders Partners**.

### Communicate

#### Visit 2 3rd week in October 4 hours at the industry site

The student teacher will **communicate** possible ways of approaching a solution to the industry problem, accompanied by a suitable **research scientist**, facilitated by **Flinders Partners**.

Student teachers will incorporate their industry experiential learning in their teaching placement at a high school in May 2017