

Objective A: Investigating

EXAMPLE: Using the Scaffold

Name:

Goal:

Global Context:

Objective A: Investigating
Students should:

- define a clear goal and context for the project, based on personal interests
- identify prior learning and subject-specific knowledge relevant to the project
- demonstrate research skills.

Area of Research: Welding processes

Explain how you identified prior learning and subject-specific knowledge relevant to your project.

Stick/arc welding uses a welding power supply to create an electric arc between an electrode and the base material to melt the metals at the welding point. Requires minimal training and inexpensive equipment.

MIG Welding is when an electric arc forms between a consumable wire electrode and the work piece metal(s), this heats the work piece metal(s) causing it/them to melt and join along the wire electrode. MIG welding is easy to Learn, but can only be used on thin to medium thick metals. Sloppier than TIG.

TIG Welding is a precise process, a lot harder to do than others. It can be used to weld copper, titanium, even two dissimilar metals, and is handy for making tricky welds (e.g. s-curves, or welds on round things). TIG generates heat via an arc of electricity jumping from a (tungsten metal) electrode to metal surfaces.

This knowledge was instrumental in directing my project. I choose MIG Welding due to cost, time, skill level and available equipment.

It also allowed me to choose thin to medium thickness metals, thus allowing for diversity in my design.

This knowledge led me to seek out training in the MIG welding process. This research had to precede my selection of material and ultimately led to my final design.

List the sources of information you based your research on.

<http://www.arcwelding.com.au/>

http://www.gowelding.org/Basic_Welding.html

Welding for Dummies by Steven Robert - pages 15-18

B. J., Interview 15 January, 2013

Highlight the sources that provided the most useful information and evaluate only these sources.

Evaluation of Key Sources

► http://www.gowelding.org/Basic_Welding.html: This site was a credible source. It contained a lot of information from the history of welding to the skills required to weld and from my broader reading the information appeared accurate. The site linked to Australian TAFE courses, which gave me confidence in its authority and authenticity.

► **B. J., Interview 15 January, 2013**: B. J. is an experienced and well known WA artist and sculptor. He currently uses welding techniques in his sculpture. Ben is therefore a valid and credible source of information.

Points to Note...

The student demonstrates consistent and effective transfer and application of learning to make decisions, create solutions and develop understandings. These two boxes work together to meet this criterion. The first box summarizes the learning and the second box demonstrates how this learning was applied or transferred to your project.

Points to Note...

Research skills:
Here the student has included two websites, a book and a primary source. This demonstrates a variety in terms of number and type of sources. The second box demonstrates the evaluation and justification for using these sources.