

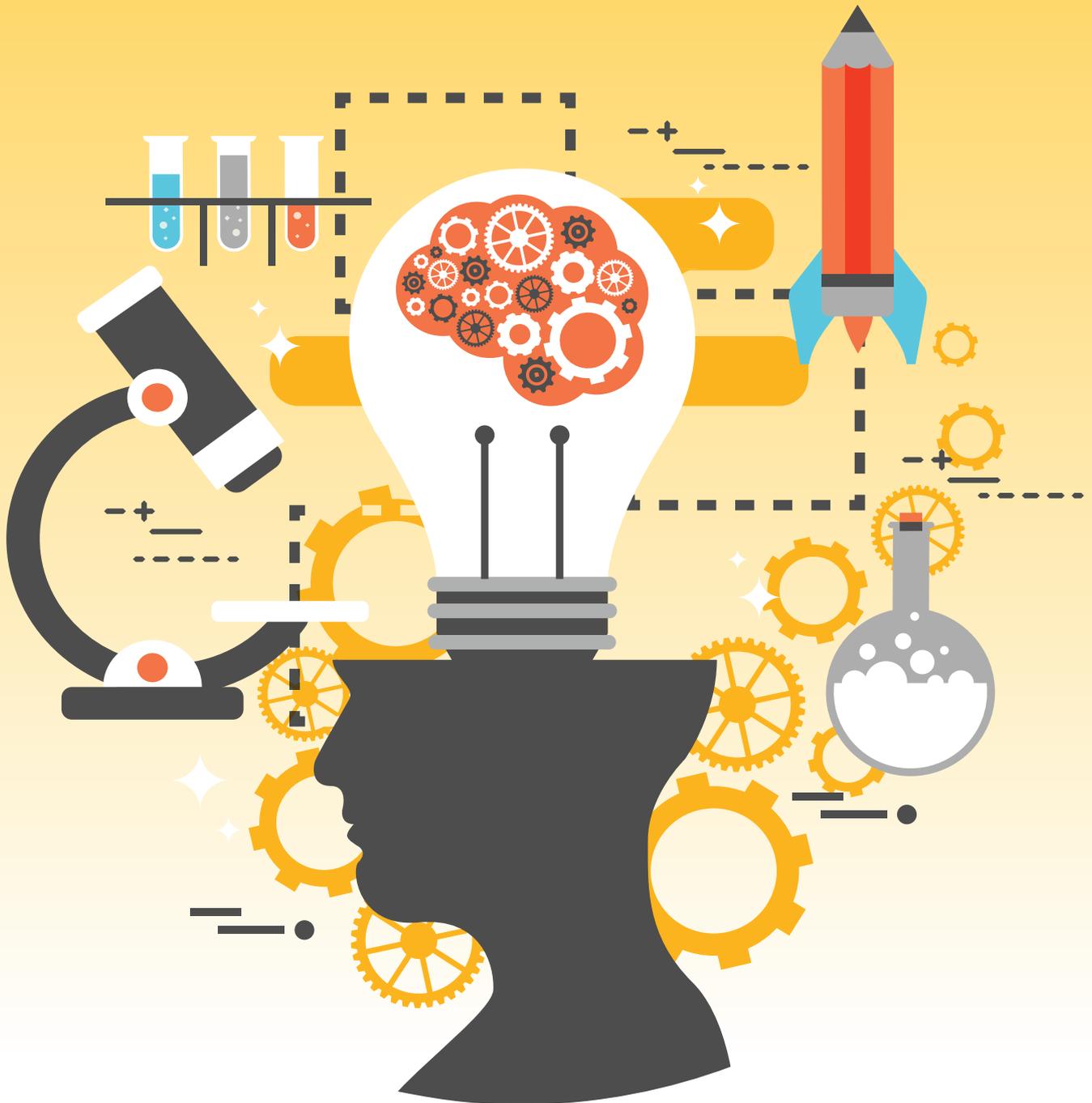
PROJECT PACK

Ashdale
Secondary College

APPROVED SPECIALIST PROGRAM



Ashdale Secondary College // ACHIEVING A POSITIVE FUTURE
For Year 6 students in 2018 applying for entry into the ASP to begin in 2019



For Year 6 students in 2018 applying for entry into the Approved Specialist Program in Year 7
in 2019



Project Overview

You may have seen ads on TV from the Water Corporation trying to get you to save water. These have been effective in lowering the amount of water people in Perth use. However, in the future there is still a risk that we will need more water than we have.

This is because the number of people in Perth is constantly increasing - more demand for water and climate change means we are getting less rain - less supply.

Your Task

Your project is to come up with a **solution** to this problem. Your solution could be in the form of **communication** or an engineered **prototype**. You must select one of the methods below for your solution.

Communication	Prototype
Video Animation Video Game Digital presentation	Engineering Model 3D, clay, paper, craft, wood, other

Suggested resources

Video - imovie, windows movie makers, free sound effects

Animation - imovie, <http://firealpaca.com>,
<https://biteable.com/animation/>

Video Game - Gamestar mechanic, Scratch, Game maker,
Game salad

Digital presentations - Keynote, Powerpoint, <https://prezi.com/>

Instructables

Lego robotics

3D modelling - Tinkercad , fusion 360 , Google Sketchup,
thingiverse



The Design Document

In order for you to imagine and design a solution to this problem you will need to follow a design process. You must place your research, ideas, notes, sketches and photographs into a design document to hand in with your solution. This is to show your thinking and process of coming up with your solution.

A design document template has been included for you to follow. It contains the following sections:



Define: in order for you to start your project, you will need to define the problem you are trying to solve first in your own words. What problem are you trying to solve?



Discover: good solutions always have research to help think about the problem more deeply. What information can you gather? Surveys, Internet research, books, magazines are all ways of discovering more about the problem.



Dream: now that you understand the problem more deeply, you can brainstorm ideas about how to solve the problem. This is about coming up with creative ideas.



Design: choose an idea for your solution and start designing it. Keep notes, sketches, photographs and videos to show you working on your solution. Show annotations (notes) of your work.



Deliver: the final form of your solution. Present your work neatly to show your solution.



Debrief: reflect on your design process and final solution. What worked well? What could be better? What would you do differently next time?



Rubric

Your solution and design document will be judged using the following criteria:

Define	Student has a very clear understanding of the problem being addressed shown by provided a specific explanation of the problem of water scarcity in WA.
Discover	Student has performed extensive research on the problem and how other cities/countries have approached the issue of water scarcity. This research is summarised appropriately.
Dream	Student has provided a large range of possible solutions to the problem. Demonstrated creativity and innovation in the suggested solutions. Has considered the merits of a number of these possible solutions before selecting their final choice.
Design	Student demonstrates a strong planning process and clear application of knowledge in developing their chosen solution.
Deliver	Final solution is presented professionally, clearly demonstrates how it solves the problem and is a direct reflection of their design process.
Debrief	Student shows critical reflection on the process and final product and is able to offer practical changes for improvement.

All elements will be rated on a scale of 0-5

Submissions

Project and Design document are due on **Monday 7th May**. Students are required to bring their project on testing day. Digital projects must be submitted on a USB (please beware of unusual file types). Project must be clearly labelled with student name. All projects and USBs can be collected after Wednesday 6th June.

Glossary

Annotation: a note with an explanation or comment, added to a text or diagram.
Communication: a method of getting a message across to a group of people.
Design Document: a document that shows a progression of ideas and thinking towards a designed product or solution.
Prototype: a mockup or draft of a product
Solution: a way of fixing or reducing the negative effects of a problem
Template: the term template, when used in the context of word processing software, refers to a sample document that has already some details in place; those can be adapted (that is added/completed, removed or changed, differently from a fill-in-the-blank approach as in a form)

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