



## MAKERSPACE

# SHAPING THE FUTURE WORK OF OUR STUDENTS

## DESIGN THINKING AT PENINSULA GRAMMAR

### A PEDAGOGICAL FRAMEWORK

Seeing a clear need to help our students develop the skills they will require to flourish at and beyond school, Peninsula Grammar have embarked on a journey to develop the dispositional outcomes associated with making.

Using over 10 years of research from Harvard Universities Agency by Design Research Unit we have developed a program where our boys and girls use a framework to look closely, explore complexity and find opportunities. At the heart of our program is this pedagogical framework which sees our students understand how to look closely at objects.

## THE ART OF LOOKING CLOSELY

Looking closely requires our students to use mindful observations. To look with focus helps our students understand what something looks like, what it is made of and how it is put together. This is the first layer of seeing opportunity in what an object presents.

The next phase is intrinsically linked to the first. When looking closely at something you start to wonder about the complexities of the object and move beyond seeing that object as a static or discrete item. It helps to understand that all objects have relationships between parts and wholes. Understanding the complexities means understanding how it was made, for whom it was made and why was it made. This is where our approach focuses on Design Thinking and a Human Centered approach to design.



## MAKING A DIFFERENCE

Design Thinking underpins this program as an iterative process to define and solve problems. We encourage the concept of empathy in design; highlighting that the objects we make have a direct impact on others. Considering the thing we make will change and improve something for others shifts the lens for our students to a space where they consider how they may be able to impact the lives of people around them thus developing their emotional intelligence.

To change something for others by looking closely and exploring complexity is needed to find the opportunity to re-design and see the potential for building. This phase sees our students imagine a world as if it could be otherwise. Having an inclination toward positive action and change gives our students permission to change their world.

Our purpose-built MakerSpaces is where this learning occurs and links with our classroom learning. Encouraging agency and building character within our boys and girls around making, creating, exploring, inventing and developing helps them to prepare for the future work they will undertake. Making explores the very essence of what it means to be a learner. It about curiosity, being playful, a willingness to take risks, a willingness to take responsibility, being persistent, being resourceful, sharing and having optimism.

## SOFT SKILLS

Learning in the MakerSpaces helps our students develop the noncognitive skills (soft skills) that will be required to be a confident, capable and resilient person in the 21st century. Making supports the development of these skills giving them a source of inspiration, a growth mindset, motivation to learn, unlearn and relearn. This encourages our students to have a failure-positive outlook on the world and their learning.

## LEARNING TOGETHER

Our boys and girls develop a sense of agency around figuring out how to make or fix things collaboratively rather than simply relying on their teachers to tell them the answer. They are encouraged to think deeply about how to make a choice so that the things they make will have qualities that reflect their own personal values and impact others. Boys and girls share their learning and work interdependently to define and solve problems.

## LEARNING BY DOING

Our students learn by doing, engaging in various activities together that seek to develop the noncognitive skills of creativity, collaboration, critical thinking, communication, problem finding and solving. The main element of our MakerSpace is allowing our students to figure things out on their own using an iterative process to learning, Design Thinking in line with our Making Pedagogical Framework. The learning is hands on; it is an experiential approach. The doing part, where boys and girls tinker and make systems, objects and projects with technologies together, is at the heart of our MakerSpaces and helps our students to learn, grow and flourish.

**“IF WE WANT TO LEAVE  
OUR FOOTPRINT ON THE  
FUTURE, WE NEED TO  
LEARN WHO WE ARE NOW.”**



**PENINSULA**  
GRAMMAR