

### BIG IDEA:

*Shape Up* enables students to apply mathematics and technology skills to real-life situations.

Students further develop their mathematics and numeracy skills, with a focus on the number, shape and measurement strands. They employ design thinking processes in response to maths-based design challenges and create a design portfolio.

### SELECTION CRITERIA:

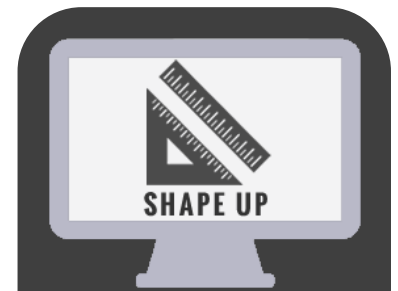
- ✓ Selection criteria for the UNIFY Series is largely subjective.
- ✓ Many schools use *Shape Up* and other UNIFY Series programs as an enrichment opportunity for mid-to-high achieving students.
- ✓ Teacher judgement and student interest in mathematics and technology should assist selection.

### AUSTRALIAN CURRICULUM:

See page 2 for Australian Curriculum links and other important details.

### THE COURSE:

LESSON OVERVIEW		
NO.	TITLE	CONTENT
1	Welcome to <i>Shape Up</i>	<ul style="list-style-type: none"> <li>▪ Introduction to the web conferencing technology</li> <li>▪ Initiating a garden design</li> </ul>
2	eLearn course introduction Organisation for project	<ul style="list-style-type: none"> <li>▪ eLearn tour</li> <li>▪ Create folders</li> <li>▪ Download working portfolio</li> <li>▪ Attach snipping tool to taskbar</li> <li>▪ Attach calculator to taskbar</li> </ul>
3	Pre-assessment/ Estate development	<ul style="list-style-type: none"> <li>▪ eLearn Test</li> <li>▪ Create estate development plan</li> </ul>
4	Fence my property	<ul style="list-style-type: none"> <li>▪ Understand and apply the properties of perimeter to land development</li> </ul>
5	House Rules	<ul style="list-style-type: none"> <li>▪ Practise and apply knowledge of area to choice of house plan</li> </ul>
6	Spaced learning	<ul style="list-style-type: none"> <li>▪ Consolidate and extend prior learning by applying understanding to portfolios</li> </ul>
7	Green Thumb! Volume	<ul style="list-style-type: none"> <li>▪ Investigate and apply knowledge of volume to design a garden or vegie patch</li> </ul>
8	The Sprinkler	<ul style="list-style-type: none"> <li>▪ Investigate properties of circles to apply to own garden</li> </ul>
9	Tank it up	<ul style="list-style-type: none"> <li>▪ Investigate properties and structure of cylinders</li> </ul>
10	Spaced learning	<ul style="list-style-type: none"> <li>▪ Consolidate and extend prior learning by applying understanding to portfolios</li> </ul>
11	Post-assessment	<ul style="list-style-type: none"> <li>▪ eLearn Test</li> <li>▪ Complete and upload portfolios</li> </ul>
12	Where to From Here?	<ul style="list-style-type: none"> <li>▪ Review, consolidate and extend on project learning. Celebrate success.</li> </ul>



**Years 5-6**

**UNIFY Series  
Round 3 only**

*'Students enjoyed the interactive activities where they had the opportunity to apply their skills. The real-world links were also a strength. Connecting the skills to interesting real-world questions engaged the students' thinking. The program provided an opportunity for more able students to be extended in their mathematical skills and knowledge.'*

**Supervisor - 2016**

*'Shape Up has really helped me to see all the different things that involve Maths and so if I ever look at something like a building and thinking some of that stuff is easy I will know the Maths that actually goes into buildings.'*

**Student - 2016**

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[Participation Costs](#)

[Primary Main Page](#)

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### Australian Curriculum

#### Mathematics

##### Number and Algebra

###### Number and place value:

- Select and apply efficient mental and written strategies and appropriate digital technologies to solve problems involving all four operations with whole numbers ([ACMNA123](#))

##### Measurement and Geometry

###### Using units of measurement:

- Calculate perimeter and area of rectangles using familiar metric units ([ACMMG109](#))
- Connect volume and capacity and their units of measurement ([ACMMG138](#))

###### Location and transformation:

- Use simple scales, legends and directions to interpret information contained in basic maps ([ACMMG090](#))

###### Shape:

- Compare the areas of regular and irregular shapes by informal means ([ACMMG087](#))

### Design and Technologies Learning Area

#### Design and Technologies Processes and Production Skills

- Develop project plans that include consideration of resources when making designed solutions ([ACTDEP028](#))

### General Capabilities

#### Numeracy

##### Estimating and calculating with whole numbers

- Understand and use numbers in context
- Estimate and calculate

##### Using measurement

- Estimate and measure with metric units

#### ICT Capability

##### Managing and operating ICT

- Select and use hardware and software

##### Creating with ICT

- Generate solutions to challenges and learning area tasks
- Use ICT effectively to record ideas, represent thinking and plan solutions
- Generate ideas, plans and processes

##### Communicating with ICT

- Select and use appropriate ICT tools safely to share and exchange information and to safely collaborate with other

#### Literacy

##### Comprehending texts through listening, reading and viewing

- Comprehend texts
- Navigate, read and view learning area texts
- Interpret and analyse learning area texts

##### Composing texts through speaking, writing and creating

- Compose spoken, written, visual and multimodal learning area texts
- Compose texts

##### Word Knowledge

- Understand learning area vocabulary

#### Critical and Creative Thinking

##### Inquiring – identifying, exploring and organising information and ideas

- Identify and clarify information and ideas
- Organise and process information

##### Generating ideas, possibilities and actions

- Seek solutions and put ideas into action
- Consider alternatives

##### Reflecting on thinking and processes

- Reflect on processes

### NAPLAN Online – ICT Skills Guide

NAPLAN Online requires students to confidently use a computer or device in at least seven ways. As shown below, IMPACT Centre projects develop all seven of these skills and are an excellent way to prepare your students for online testing.

- Locate and select an answer from a list – YES
- Type an answer – YES
- Read the screen and navigate web pages – YES
- Manipulate objects on screen – YES

- Read and comprehend digital texts – YES
- Plan and compose text using word processing – YES
- Listen using a headset – YES

**NB:** See [DET's NAPLAN Online ICT Skills Guide](#) for details.

#### Assessment

- Pre and Post Assessment – eLearn Test
- Portfolio – collection of work samples

#### Reporting

- Pre and post assessment data are provided to schools, along with student attendance data.
- Qualitative report card comments are provided to schools. We recommend inclusion as an OLA on semester report cards.

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