

CONSTRUCTION FUTURES



SCHOOL EXCURSION

PROGRAM

YEAR 11

DESIGN WITH PURPOSE



PURPOSE OF THE LEARNING ACTIVITY

To assist students to understand that design and audience behaviours are related and to gain insight into how construction design has changed over time.

As an outcome of this series of activities, students will be able to identify how elements of design are applied in the construction industry, how design influences people's behaviours and use of the built environment, and how design in the construction industry has changed over time.

LEARNING ACTIVITY OVERVIEW

Students examine the role of design in the construction industry over time and the associated roles, and create and critique designs based on their understandings of design principles.

CURRICULUM LINKS

Students in Year 11 typically undertake specialised programs of study. This sequence of learning activities has been designed to accommodate the learning focuses of a range of students and can be addressed from a number of different curriculum perspectives.

The main purpose of these activities is to provide students with a meaningful context in which to examine and discuss a range of roles in the construction industry and to assess how elements of supply and demand impact the availability of these roles.

Teachers are advised to use the curriculum links as a guide to ensuring these activities support their planned learning and teaching programs. And overarching learning focus can be drawn from the General Capabilities that are part of the Australian Curriculum.

These activities can be implemented in the context of the **Design ATAR Course, Year 11**, focusing on:

- Outcome 1 – Design Understandings.
- Unit 1 Product design.
- Dimensional design.
- Design elements and principles.

For students not studying the **Design ATAR Course**, the following curriculum links are relevant.

Construction Industries VET Industry Specific Workplace learning

- Develop positive attitudes towards work.
- Apply skills acquired in an industry context.
- Develop additional employability skills and knowledge.
- Actively engage with industry.

Mathematics Essential - General Course Year 11 Syllabus Unit 1

Linear measure:

1. Choose and use appropriate metric units of length, their abbreviations, conversions between them, and
2. Appropriate levels of accuracy, such as mm for building and other trade contexts, cm for textiles;
3. Estimate lengths; and
4. Calculate perimeters of familiar shapes, including: triangles, squares, rectangles and composites of these.

Area measure:

1. Choose and use appropriate metric units of area, their abbreviations and conversions between them;
2. Estimate the areas of different shapes;
3. Convert between metric units of area and other area units; and
4. Calculate areas of rectangles and triangles, and composites of these shapes.

Unit 2

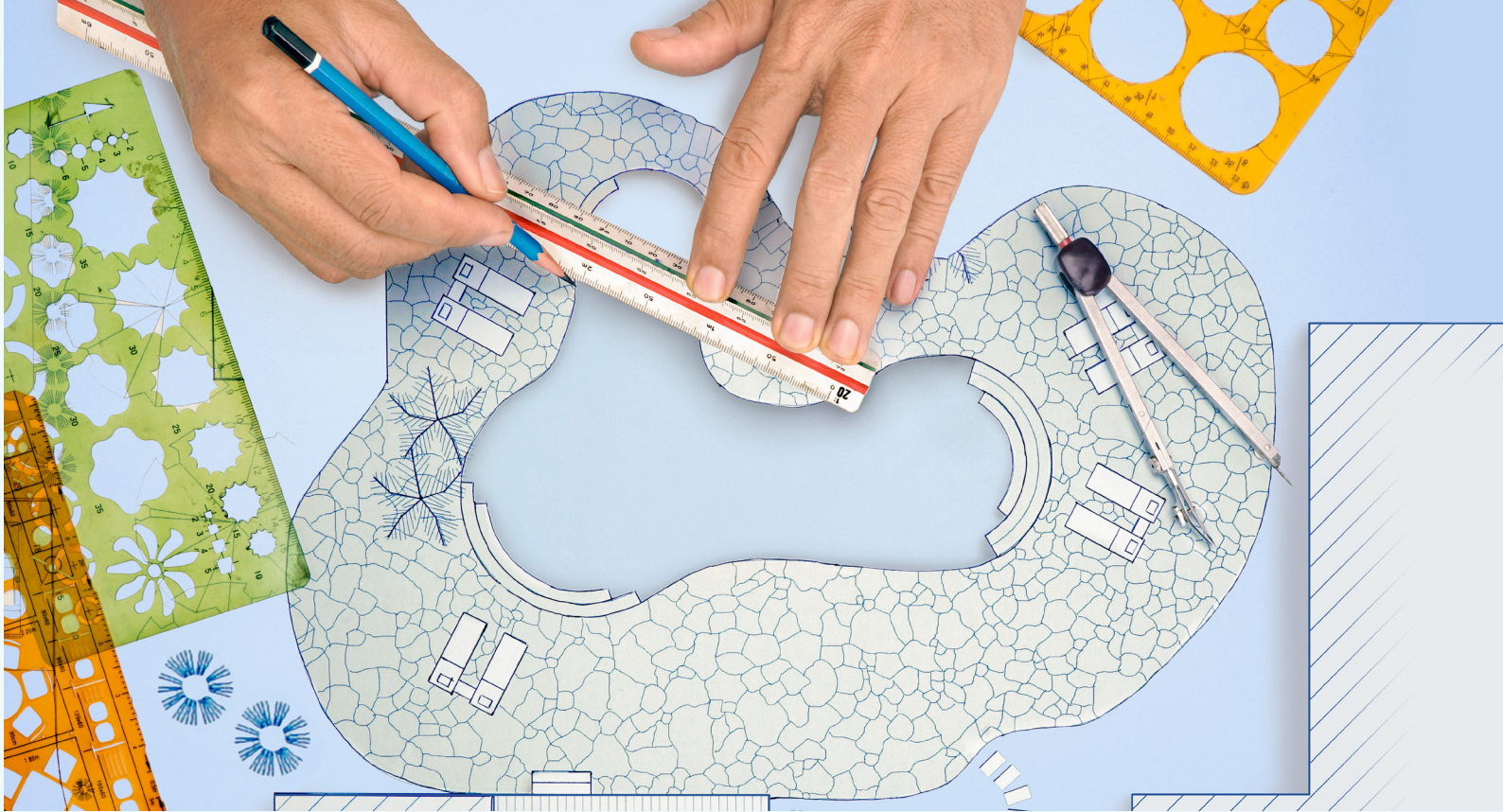
Distance and length:

- Use scales to calculate distances and lengths on plans, maps and charts.

English Year 11 Unit 1

Create a range of texts:

- Using appropriate form, content, style and tone for different purposes and audiences in real and imagined contexts;
- Drawing on a range of technologies;
- Combining visual, spoken and written elements where appropriate;
- Using evidence-based argument;
- Using appropriate quotation and referencing protocols;
- Using strategies for planning, drafting, editing and proofreading; and
- Using accurate spelling, punctuation, syntax and metalanguage.



LEARNING ACTIVITY

BEFORE VISITING THE CONSTRUCTION FUTURES CENTRE

Students consider where the following elements of design may be applied in constructing a house, analysing how application has changed over time:

- line;
- shape;
- value;
- 3D form;
- space;
- colour;
- type; and
- texture.

Students discuss how the application of these elements of design may be used to assist people to feel an affinity with their homes.

Students list elements of design they would expect to see represented when they visit the Construction Futures Centre and prepare recording sheets to support them to take notes on the application of design in the construction industry.

DURING THE VISIT

Students use the recording sheets they prepared prior to visiting the Construction Futures Centre to make notes on the application of design in the construction industry.

Students identify roles in the construction industry that have a design focus and the skills, training and qualifications required to be successful in these roles.

Students discuss what they have learned about the application of design in the construction industry over time and how this influences the ways that people use and interact with buildings.

AFTER THE VISIT

Students summarise key points regarding the changes in design and construction over time and identify reasons for changes.

Students apply what they learned about the application of design in the construction industry by making annotated design sketches for a building and incorporating design elements that are intended to influence people's behaviours.

Students review and critique each other's designs.

SKILLS RELATED TO THE CONSTRUCTION INDUSTRY

The Construction Futures Centre has identified core skills that relate to careers in the construction industry. As students complete learning experiences before, during and after their visit to the Construction Futures Centre, they should be encouraged to work in ways that enable them to apply and demonstrate these core skills and to identify how these relate to and are applied in roles in the construction industry.

THE CORE SKILLS ARE:

- reading;
- writing;
- speaking;
- listening;
- numeracy;
- technology;
- teamwork; and
- problem solving.

SUGGESTED WEBSITES

www.yourhome.gov.au/
www.iscd.edu.au/interior-influences
www.architectureanddesign.com.au/
www.greatbuildings.com/
www.nla.gov.au/about-us/



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