

CONSTRUCTION
FUTURES



**SCHOOL
EXCURSION**

PROGRAM

YEAR 8

IS THE CONSTRUCTION INDUSTRY FOR ME?



PURPOSE OF THE LEARNING ACTIVITY

To assist students to:

- consider roles in the construction industry and how these have changed over time; and
- investigate and understand the financial underpinnings of the construction industry.

As an outcome of this series of activities, students will have a greater understanding of current and future roles in the construction industry and insight into the industry's financial underpinnings. These understandings will inform students' future decisions about study and career pathways.

LEARNING ACTIVITY OVERVIEW

Students consider roles in the construction industry in relation to buildings they are familiar with in their local neighbourhoods. Students also apply mathematical skills to gain understanding of costs involved in the construction industry.

CURRICULUM LINKS

Humanities and Social Sciences

P-10 Syllabus

- Humanities and Social Sciences.
- Economics and Business.
- Participation and influences in the marketplace.
- Influences on the way people work.

Mathematics P-10 Syllabus

- Money and Financial Mathematics.
- Solve problems involving profit and loss, with and without digital technologies.

General Capabilities – Literacy

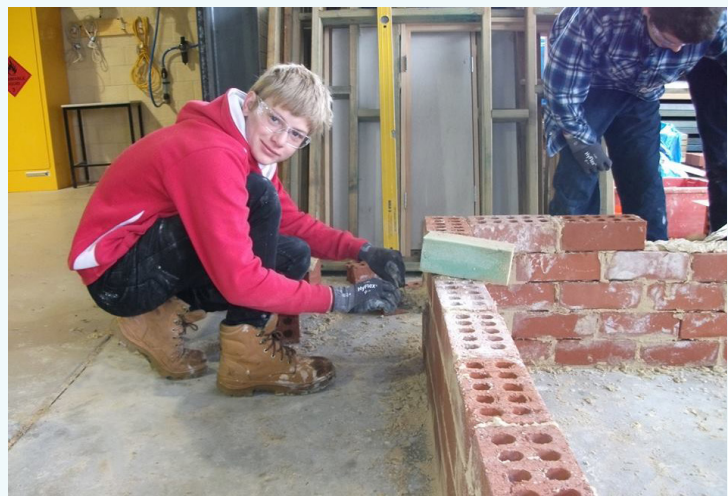
Composing texts through speaking, writing and creating element.

- Use language to interact with others.
- Use pair, group and class discussions and formal and informal debates as learning tools to explore ideas, test possibilities, compare solutions, rehearse ideas and arguments in preparation for creating texts.

General Capabilities – Numeracy

Estimating and calculating with whole numbers element.

- Use money.
- Identify and justify 'best value for money' decisions.



LEARNING ACTIVITY

BEFORE VISITING THE CONSTRUCTION FUTURES CENTRE

Students work in groups to brainstorm roles in the construction industry, thinking about what roles would have been required to build: their home, school and local shopping centre.

Once students have listed roles, they are encouraged to define categories and to speculate on how these may have changed over time and may change in the future and to give reasons why roles may change.

Students compile a list of future roles in constructing a home so that they can compare this with roles illustrated at the CFC.

Students consider the financial aspect of the construction industry and variables that are able to be controlled and those over which the construction industry has less control, for example:

- cost of materials;
- cost of labour;
- time to construct; and
- supply and demand in the building market.

Students are guided to use a spreadsheet to create simple mathematical models that will enable them to keep track of costs for a construction project and to manage expenditure and revenue.

Students speculate on the types roles they may be able to identify while at the Construction Futures Centre that could have an environmental sustainability focus. Students name and list these roles and notes the skills that they think each should have in order to be successful.

DURING THE VISIT

While at the CFC, students work in their groups to identify current and future roles in the construction industry.

Students use information collected from the Centre's exhibits to refine the lists of roles and categorisation of roles completed prior to their visit.

Students review exhibits to determine how roles in the construction industry have changed over time.

Students contrast and compare the lists of future roles in constructing a home with information they collect at the CFC.

Students engage with the exhibits at the CFC to augment their lists of variables that are components of the construction industry, making lists as they move through the Centre.

Students select a particular building type and refine their lists in relation to that building type.

These lists will be used after students' visit to the CFC to update the spreadsheets they prepared previously.

AFTER THE VISIT

Students use their lists of roles in the construction industry, developed prior to their visit to the CFC and refined during their visit, to create a list of roles that they think could be used to build their future home (i.e. 20+ years into the future).

In compiling their lists, students consider what they would like included in the construction of their future home and what materials will be used.

Students research and describe the roles for future house construction and write role statements including the skills and training people will require to be able to perform each role.

Using the lists they completed at the CFC, students research costs associated with the variables that are components of the construction process for the building they have selected.

Once they have a unit cost for each variable, students update their spreadsheets so that they can use formulas to provide an estimate of the cost constructing the building they have nominated.

Students then adjust variables to examine what will happen to the overall cost, taking into account factors like:

- environmental sustainability;
- increased cost of materials or labour;
- Increased time to build;
- more/less expensive materials components; and
- the effect of higher or lower demand on purchase prices.

Students use the data they generate to discuss factors that affect profit and loss in the construction industry and how these can be managed.

Students use the data they generate to discuss how sustainable practices are contributing to the overall viability of the construction industry.

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.buildyourcareer.com.au/
ctf.wa.gov.au/careers/
www.aapathways.com.au/
www.joboutlook.gov.au/
www.designandconstruct.com
www.graduatecareers.com.au/
www.aaarchitect.com.au/



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