

Curriculum Alignment Plan

FUELLING A HYDROGEN FUTURE: STEM SKILLS FOR SECONDARY LEARNING (YEAR 7)

This curriculum alignment plan for Fuelling a Hydrogen Future: STEM Skills for Secondary Learning is based on the Australian Curriculum, Assessment and Reporting Authority (ACARA) [Version 9.0](#) for Year 7.

LEARNING AREAS

- Science
- Design and Technologies
- Digital Technologies
- Economics and Business

SCIENCE CONTENT DESCRIPTORS

Chemical sciences

- Use particle theory to describe the arrangement of particles in a substance, including the motion of and attraction between particles, and relate this to the properties of a substance (AC9S7U05)

Use and influence of science

- Examine how proposed scientific responses to contemporary issues may impact on society and explore ethical, environmental, social and economic considerations (AC9S7H03)

Communicating

- Write and create texts to communicate ideas, findings and arguments for specific purposes and audiences, including selection of appropriate language and text features, using digital tools as appropriate (AC9S7I08)

DESIGN AND TECHNOLOGIES CONTENT DESCRIPTORS

Technologies and society

- Analyse how people in design and technologies occupations consider ethical and sustainability factors to design and produce products, services and environments (AC9TDE8K01)
- Analyse the impact of innovation and the development of technologies on designed solutions for global preferred futures (AC9TDE8K02)

Technologies context: Engineering principles and systems

- Analyse how force, motion and energy are used to manipulate and control engineered systems (AC9TDE8K03)

DIGITAL TECHNOLOGIES CONTENT DESCRIPTOR

Investigating and defining

- Define and decompose real-world problems with design criteria and by creating user stories (AC9TDI8P04)

ECONOMICS AND BUSINESS CONTENT DESCRIPTOR

Interpreting and understanding

- Interpret information and data to identify economic and business issues, trends and economic cause-and-effect relationships (AC9HE7S03)

GENERAL CAPABILITIES

Critical and Creative Thinking

- Identify and clarify significant information and opinion from a range of sources, including visual information and digital sources (Level 5)

Literacy

- Responds to complex texts (Level 7)
- Selects appropriate listening strategies for planned and unplanned situations (Level 7)
- Uses technical vocabulary to demonstrate topic knowledge (e.g. "deforestation") (Level 6)

CROSS-CURRICULUM PRIORITIES

Sustainability

- Sustainable patterns of living require the responsible use of resources, maintenance of clean air, water and soils, and preservation or restoration of healthy environments (SS2)
- Sustainably designed products, environments and services aim to minimise the impact on or restore the quality and diversity of environmental, social and economic systems (SD1)

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- Creative and innovative design is integral to the identification of new ways of sustainable living (SD2)
- Sustainable design requires an awareness of place, past practices, research and technological developments, and balanced judgements based on projected environmental, social and economic impacts (SD3)

Aboriginal and Torres Strait Islander Histories and Cultures

- First Nations communities of Australia maintain a deep connection to, and responsibility for, Country/ Place and have holistic values and belief systems that are connected to the land, sea, sky and waterways (A_TSICP1)

FURTHER INFORMATION

For further information on Fuelling a Hydrogen Future, contact H2learning@cqu.edu.au or the course authors:

- Dr. Cal Devney
(c.devney@cqu.edu.au)
- Assoc Prof Aruna Jayasuriya
(a.jayasuriya@cqu.edu.au)