

2026 Queensland Quantum Challenge - Curriculum Alignment to General Syllabuses – 21st Century Skills (for Year 11)

The 2026 Queensland Quantum Challenge aligns to the Purpose of the 21st Century Skills in the Senior General Syllabus Australian Curriculum.

<https://www.qcaa.qld.edu.au/senior/senior-subjects/about-syllabuses/general-subjects/21st-century-skills>

21st Century Skills Purpose

Refining and expanding a broad set of skills and dispositions during senior schooling is essential to students' success in further education and in life. By preparing students 'for the future world of work' and equipping them with 'critical life skills' we are shaping them into future-ready individuals who excel as 'critical and creative thinkers' (Aus Gov, DoE 2022). These transferable skills, often referred to as 21st century skills, allow young people to become agile, adaptive learners equipped to navigate personal, academic, social and economic challenges (UNICEF 2019). These are the skills that will enable students 'to become active, responsible and engaged citizens' (OECD 2018).

The Queensland Curriculum and Assessment Authority (QCAA) has identified and defined a set of 21st century skills based on national and international research about the skills students need in the 21st century. Along with literacy and numeracy, these 21st century skills are the underpinning factors shaping the development of the senior syllabuses. These skills build on those that are embedded and developed through the Australian Curriculum general capabilities in Prep to Year 10 (QCAA 2022).

These 21st century skills will help prepare Queensland students by providing them with the knowledge, skills and confidence they need to be equipped for the demands of higher education, work and life, and to participate effectively in the community and the economy in a complex and rapidly changing world.

Syllabus development must respond to the learning needs of all young people, and facilitate effective transitions to further education, training and employment. This is achieved by including the underpinning factors in syllabus development. The underpinning factors are derived from current education, industry and community expectations. They overlap, interact with and build on the general capabilities taught in the Years P–10 Australian Curriculum, and include literacy, numeracy and 21st century skills.

These 21st century skills include critical thinking, creative thinking, communication, collaboration and teamwork, personal and social skills, and digital literacy. These are supported by associated skills, which elaborate on the 21st century skills.

Associated Skills

The Associated Skills included below provide connections to skills that can be developed through participation in the 2026 Queensland Quantum Challenge.

21 st Century Skill	Associated Skills
Critical Thinking	<ul style="list-style-type: none"> • analytical thinking • problem-solving • decision-making • reasoning • reflecting and evaluating • intellectual flexibility
Creative Thinking	<ul style="list-style-type: none"> • innovation • initiative and enterprise • curiosity and imagination • creativity • generating and applying new ideas • identifying alternatives • seeing or making new links
Communication	<ul style="list-style-type: none"> • effective oral and written communication • using language, symbols and texts • communicating ideas effectively with diverse audiences
Digital Literacy	<ul style="list-style-type: none"> • operations and concepts • accessing and critically analysing information • being productive users of technology • digital citizenship (being safe, positive and responsible online)