All pre-service teachers studying Early Childhood (ED39 or EU30) and Primary (ED49 or EU40) are required to study a primary specialisation. The primary specialisations that QUT offers are:

- Literacy/English
- Numeracy/Mathematics
- Science

Pre-service teachers choose one of these and undertake modules in their selected specialisation that go beyond the required curriculum that all pre-service students undertake regardless of their specialisation area.

Pre-service teachers will be assessed on their ability to demonstrate:

- expert content knowledge
- expert pedagogical content knowledge and
- highly effective classroom teaching in their area of specialisation.

Supervising Teachers are required to assess pre-service teachers in these three areas when it is included on the Professional Experience report. This document is a guide provided to assist Supervising Teachers in their assessment of primary specialisation.

In considering the skills and knowledge of graduates with a primary specialisation, it is important to note that graduate teachers are required to meet the Graduate career stage of the Australian Professional Standards for Teachers (APST), and it is not an expectation that graduates with a primary specialisation will surpass this career stage.

### Literacy/English Primary Specialisation

Below are multiple indicators of possible features a graduate pre-service teacher with a literacy/English primary specialisation may demonstrate. Please note this is not to be used as a checklist and meeting all of the indicators is not a requirement to meet the standards of a graduate teacher. This is a guide to help you discuss with pre-service teachers, the characteristics of a subject specialist that are emerging.

Possible features of graduate primary teachers with a specialisation in literacy/English may include:

**Expert Content Knowledge**

- knowledge and understanding of essential concepts and key ideas for the teaching of English in primary school
- sound knowledge of the metalinguistic foundations of the English language and the research base underpinning the essential components of effective early reading instruction including oral language, phonemic awareness, phonics, fluency, vocabulary, and comprehension
- detailed knowledge of the alphabetic code of written English, the linguistic constructs that describe the English language, the spelling conventions of written English, and its etymological and morphological foundations.
- solid understanding of the multi-disciplinary research on how children learn to read as well as the scientific evidence base supporting effective early reading instruction.
- sufficient understanding of language and reading development to identify areas of strength and weaknesses in children’s reading progress and apply the appropriate interventions.
Highly Effective Classroom Teaching and Capacity to Impact Student Learning

- enthusiasm for the teaching of English
- capacity to identify and assess challenges related to under-performing students, and opportunities for assisting high-performing students
- teacher professionalism indicative of their commitment to engage with and contribute to the profession of English and literacy educators
- confidence as teachers of English in their capacity to work with colleagues to plan for, assess, and constantly improve teaching and learning associated with the study of English.

Science Primary Specialisation

Below are multiple indicators of possible features a graduate pre-service teacher with a science primary specialisation may demonstrate. Please note this is not to be used as a checklist and meeting all of the indicators is not a requirement to meet the standards of a graduate teacher.

Possible features of graduate primary teachers with a specialisation in science may include:

Expert Content Knowledge
- deep understanding of science concepts and the processes used to develop scientific knowledge.
• Deep understanding of science’s contribution to our culture, society and economy as well as its influence in our lives.
• capacity to make connections and creatively integrate science across other Key Learning Areas
• curiosity in seeking to learn about and understand the natural world.
• a capacity to contribute to the design and provision of high quality primary science education.
• a capacity to critique science curriculum, programmes, teaching resources, pedagogies and practices.
• understanding of and capacity to articulate the theoretical and research basis for science curriculum and effective pedagogies
• Understanding of ways in which Aboriginal and Torres Strait Islander science, traditional knowledge and western scientific knowledge can be complementary

Pedagogical Content Knowledge
• comprehensive knowledge of how to enable students to achieve requirements of the curriculum.
• extensive understanding of science concepts relevant to primary science, and the extent to which these are encapsulated in the curriculum.
• deep understanding of scientific inquiry and the extent to which this is encapsulated in the curriculum.
• understanding of the ways in which scientists pursue the production of trustworthy knowledge and the extent to which these are encapsulated in the curriculum.
• capacity to capitalise on and orchestrate opportunities for science learning across all primary year groups including the selection of a range and balance of explicit teaching, play, inquiry, problem-based, project-based strategies
• thorough understanding of learning in science, including students’ conceptions, the diagnosis of barriers to and enablers of science learning.
• capacity to implement assessment processes to improve science teaching and learning.
• capacity to work with colleagues to plan for, to evaluate and to improve science teaching and learning.
• capacity to organise and manage spaces, materials and equipment required for the teaching and learning of science.
• capacity to use digital technologies to enhance science teaching and learning.
• knowledge of teaching strategies that enable students to develop an appreciation of and enthusiasm for science.

Highly Effective Classroom Teaching and Ability to Impact Classroom Learning
• capacity to evaluate and improve the impact of their teaching on student learning.
• ability to differentiate learning experiences for students.
• confidence in and enthusiasm for science teaching.
• Ability to facilitate science learning and teaching transitions from pre- to primary and from primary to secondary schooling

Numeracy/Mathematics Primary Specialisation

Below are multiple indicators of possible features a graduate pre-service teacher with a numeracy/mathematics primary specialisation may demonstrate. Please note this is not to be used as a checklist and meeting all of the indicators is not a requirement to meet the standards of a graduate teacher.

Possible features of graduate primary teachers with a specialisation in numeracy/mathematics may include:

Expert Content Knowledge
• deep understanding of the nature of mathematics and how this is encapsulated in the proficiency strands of the curriculum.
• capacity to see the connections between key concepts in the mathematics curriculum
• capacity to creatively integrate mathematics across other subject areas.
• ability to capitalise on and orchestrate opportunities for mathematics learning across all primary year groups.
• capacity to advocate for research informed mathematics teaching.
• deep understanding of the research basis for mathematics curricula and pedagogies.
• deep understanding of mathematical concepts and processes used to develop mathematical knowledge

Pedagogical Content Knowledge
• knowledge of how to teach mathematics including pedagogies appropriate to specific groups of learners.
• knowledge of a broad range of teaching strategies that enable students to develop an appreciation of and enthusiasm for the discipline of mathematics.
• comprehensive knowledge of strategies to enable all students to develop mathematical proficiency and that positively impact on those students’ mathematical proficiency.
• strong capacity to design assessments and to interpret and use assessment data from a broad range of sources to inform planning and teaching including differentiating teaching for students with particular mathematics learning needs.
• strong knowledge of students’ typical developmental pathways and common difficulties in learning mathematics.
• strong knowledge of age-appropriate mathematics pedagogy

Highly Effective Classroom Teaching and Ability to Impact Classroom Learning
• capacity to have a positive impact on student learning in mathematics
• enthusiasm for mathematics teaching,
• belief in the capacity of all students to learn mathematics,
• commitment to engage with and contribute to the profession of mathematics teaching and
• enhanced confidence as teachers of mathematics