

Becoming a Chartered Science Teacher

Competence report – advice to applicants and mentors

Applicants for CSciTeach will need to demonstrate competence across a variety of areas. Guidance on what the assessors will be looking for under each competence is provided below but the examples are just indicative – there will be many other valid examples you can choose.

Here are some tips you should bear in mind when compiling your application:

- For each competence statement, you will need to give clear examples of the role that you play or the contribution that you make to a particular task or activity.
- To provide your examples with sufficient depth, it might be useful to explain what you did, how you went about it and why you did it.
- You may use the same task or activity more than once but you should ensure you are clear on how it applies to the specific competence you are addressing.
- Most of the examples you provide should be fairly recent (in the last three years) but you can also draw on relevant experience further back in your career.

CSciTeach

By providing evidence through a combination of recognised qualifications, acknowledged achievements and other supporting material, each candidate qualifying for CSciTeach should:

A) Meet the qualification standards;

- By demonstrating the skills of an M level qualification in education
- Have an honours degree in science

Those without these formal qualifications can demonstrate meeting the standards through science teaching experience.

B) Be able to provide evidence of their professional expertise and competence in relation to:

1) Professional Knowledge and Understanding:

a) A broad and up to date knowledge and understanding of science and its impact on their work;

Typically this may include:

- Using information from current developments in science to extend the learning of others.

b) A broad and up to date knowledge and understanding of teaching, learning and assessment specifically related to science education;

Typically this may include:

- Evaluating and implementing different approaches to teaching and learning.

c) Knowledge and understanding of students and how different contextual factors can impact on their learning in science.

Typically this may include:

- How a learning issue was identified and what steps were taken to mitigate its impact on science learning.

2) Professional Practice which includes:

a) Planning coherent programmes of teaching in science that develop investigative skills and are intellectually challenging, emotionally supportive and physically safe;

Typically this may include:

- Developing, monitoring and evaluating the schemes of work appropriate to the students that are being taught;
- Maintaining a knowledge of health and safety requirements and enable students to develop the ability to assess risks involved in experimental work;
- Introducing activities and ideas which challenge the students' understanding of scientific concepts and evaluate their impact;
- Creating an inclusive and supportive learning environment.

b) Engaging students in the collection, analysis and evaluation of evidence to extend their scientific knowledge;

Typically this may include:

- enabling students to apply ideas to new situations and to suggest alternative interpretations of the evidence available;
- demonstrating ways in which scientific principles underpin new technologies.

c) Developing students' confidence and their ability to understand and use scientific knowledge and processes in a range of scenarios;

Typically this may include:

- Engaging students in debates about scientific ideas;
- Helping students to understand the application of science to their everyday life.

d) Assessing students' learning and providing effective feedback.

Typically this may include:

- Monitoring students' progress;
- Developing strategies using formative assessment to enhance student learning;
- Using the outcomes of assessment to inform the curriculum.

3) Professional attributes which includes:

a) Analysing, evaluating and refining teaching to improve student learning;

Typically this may include:

- Selecting and interpreting evidence to identify ways of improving their own teaching.

b) Collaborating with colleagues and the wider professional communities to improve the quality and effectiveness of science education;

Typically this may include:

- Sharing and jointly evaluating teaching practices and methods;
- Supporting the development of others.

c) Taking responsibility for leadership, management and development of science teaching.

Typically this may include:

- Leading colleagues in the development of teaching;
- Acting as a mentor to newly qualified colleagues in order to help their professional development.

(Approved by Science Council Board, Sept 2020)