

Becoming a Chartered Science Teacher

Competence report – advice to applicants

Applicants for CSciTeach will need to demonstrate competence across a variety of areas. Guidance on what the assessors will be looking for under each competency 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.
- The examples must have sufficient depth that the assessor should be able to visualise what you did from your description. To achieve this, it might be useful to explain what you did, how you went about it and why you did it. Or consider using the STAR format to draft each competency, focusing on describing the Situation, Task, Action and Result.
- 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 competency you are addressing.
- Some of your competency answers may seem fuller or easier to complete than others – this is normal and is illustrative of the wide spectrum of scientists who wish to become professionally registered.

In this document the text in blue is the competence statement itself. This will be documented in the application form and must be evidenced in your answer. The black text is guidance about what you might want to consider in your evidence but is not intended to be a complete list.

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 principals 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.

Once you have gained registration you will need to commit to maintaining your Continuing Professional Development as a scientist and comply with Science Council CPD standards.