Registered Science Technician
Application Guidelines
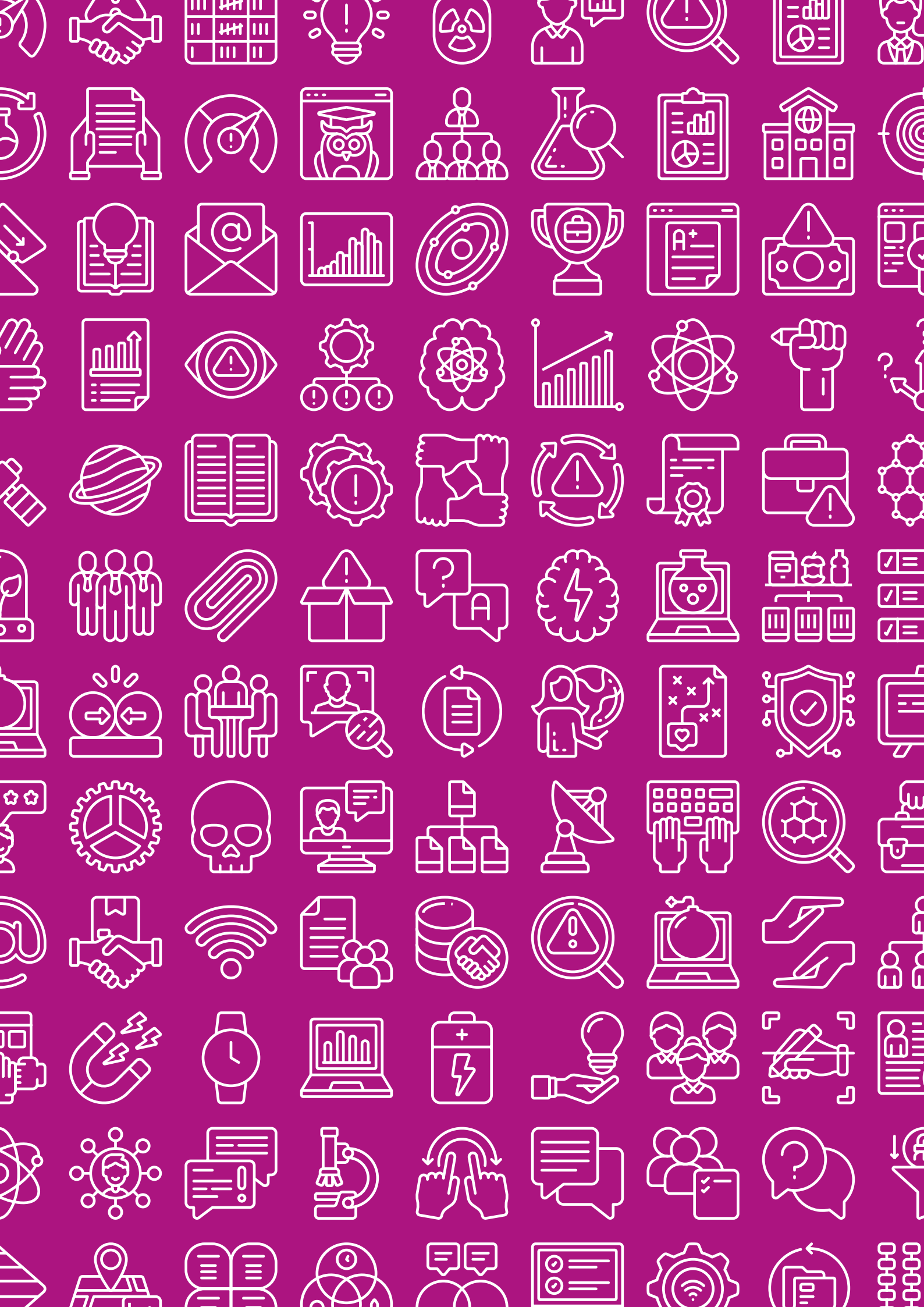
Application of knowledge and understanding

Personal Responsibility

Interpersonal Skills

Professional Practice

Professional Standards

About professional registration

Professional registration is a peer-reviewed and internationally recognised confirmation of your achievements. Professional registration demonstrates a level of knowledge and experience that can be relied upon by employers and the wider community. It is recognition of your achievements and enhances your status.

By becoming professionally registered with the Institute of Physics (IOP), you agree to our Code of Conduct that reflects best practice. The code requires that our members not only show a high level of professionalism, but also advance their competence through continuing professional development (CPD).

The IOP awards its own professional registration of Chartered Physicist (CPhys). The IOP is also licensed by the Engineering Council to award Engineering Technician (EngTech), Incorporated Engineer (IEng) and Chartered Engineer (CEng), and by the Science Council to award Registered Science Technician (RSciTech), Registered Scientist (RSci) and Chartered Scientist (CSci).

To be eligible to apply for Registered Science Technician through us you will need to be a member of the IOP and have a science-based qualification or equivalent knowledge and experience. If you are uncertain about your eligibility to apply for Registered Science Technician please contact us on **registration@iop.org**.

If you are not a member, you will need to be elected to an appropriate grade of membership before your application for professional registration will be considered. For more information and to apply for membership please visit **membership.iop.org**.

This guidance document has been designed to guide you through the requirements and application processes for Registered Science Technician.

The application process is anonymous as such we request that when documents are uploaded personal identifiable information is not included. Supporting documents such as CV, organisational chart, the equivalence report or supporting statements or letters should not include the following information: name, contact details, address, date of birth age, marital status, social media links etc. Degree certificates should not be anonymised as these are verified by IOP staff.

Additionally, when completing your application, please avoid using your name or gender pronouns. References to publications, where relevant, should have all names removed but your level of involvement should be described.
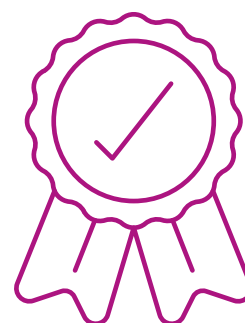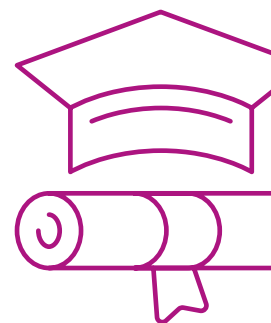
Eligibility Requirements

Meeting the standard

Registered Science Technicians work with minimal supervision in a variety of scientific and technical roles. They deliver essential scientific services and support within laboratories, schools and universities, hospitals and in many other workplaces.

To be eligible to apply for Registered Science Technician you will:

1. Have a good breadth and depth of scientific knowledge. You will demonstrate this by either:

- Possessing an exemplifying qualification; or

- Showing knowledge and understanding of equivalence to this

2. Have sufficient work experience to enable you to demonstrate the Registered Science Technician competences and provide examples of sustained experience at a responsible level. You will demonstrate this by completing the Professional Review Report

3. Nominate supporters who can vouch for you. For all grades of professional registration, the IOP requires a minimum of two supporters. These supporters verify the content of your application and should be someone who knows your work.

How do I apply?

To apply for Registered Science Technician , you will need to complete the online application form, which can be found at **applications.iop.org**.

Scientific knowledge

All applicants are required to demonstrate that they have the breadth and depth of scientific knowledge and understanding that is required for Registered Science Technician. Applicants need to demonstrate their competence across five areas by providing examples from their working life, usually within the two to three years, that illustrates how they have met each standard. This is then assessed either online or in a face to face interview.

Applicants need to hold a Level 3 qualification in a relevant scientific discipline (level 6 in Scotland) or equivalent. For example, A-Level, BTEC, NVQ Level 3, SVQ level 6, an Advanced Apprenticeship or equivalent.

Non-UK qualifications

If you have a non-UK qualification, please contact us at **registration@iop.org** prior to applying and we will help you identify the right route.

The IOP will compare your qualification to a UK qualification using an international database, found at enic.org.uk. The IOP uses this to verify the level of your qualification. Depending on how your qualification compares to the requirements for Registered Science Technician, we will advise you on the appropriate route of application. This may include completing additional paperwork. If you have a qualification from an EU/EEA state or Switzerland, you may be eligible to apply through the Recognition of Professional Qualifications route.

If you have any questions, please contact us on **+44 (0)20 7470 4800** or email **registration@iop.org**.

Demonstrating Competence

Professional Review Report

All applicants are required to demonstrate that they have sufficient professional experience in a science-based role.

To enable a sufficient assessment of your professional experience, all applicants are required to submit a Professional Review Report. This report summarises and links your experiences to the competences for Registered Science Technician which are set by the **Science Council**.

Career length: There is no specific time-served requirement, but you will need to have been working for long enough to allow you to demonstrate all of the Registered Science Technician competences, and provide evidence of sustained work at the required level.

A template for the report is provided within the application form. It includes the following sections:

Introduction – A brief outline of your current role and its scientific content, around 200-500 words in length.

Organisational chart – An organisational chart or statement of accountability must be attached to your report. The chart or statement should detail your position within your organisation and display or describe any hierarchy, or matrix system, linking you to those you are responsible to and for. It should indicate your level of seniority within the organisation. If you work by yourself, for instance as a freelance technician, you must provide a supporting statement.

Competence and Commitment – You will need to supply a short paragraph against each competency requirement, where you demonstrate how your experience meets each competency or commitment standard.

A
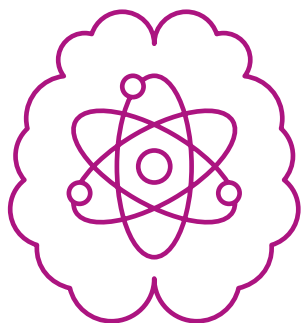
Application of knowledge and understanding

B

Personal Responsibility

C

Interpersonal Skills

Each answer should be approximately 250-500 words. Within your answers try to provide several different examples explaining how you have developed your competence.

You should then provide an example that describes the application of your current level of competence, clearly detailing the extent of professional judgment involved and your overall responsibility.

Continuing professional development (CPD) – Outline your training and development plans for the next five years. This section should explain how you intend to maintain your competence once you are registered as a Registered Science Technician and, if appropriate, how you intend to progress to Registered Scientist. This should be around 200 to 500 words.

The Registered Science Technician Standard

Applicants for Registered Science Technician will need to demonstrate competence across five areas. Guidance on what the assessors will be looking for is provided below, but the examples are just indicative – there will be many other valid examples you can choose.

Competence is developed by a combination of formal and informal learning, and training and experience. However, these elements are not necessarily separate or sequential and they may not always be formally structured.

D

Professional Practice

E
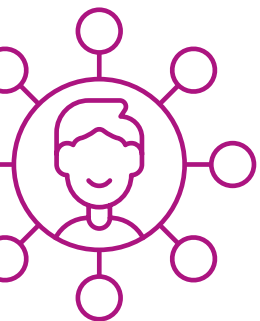
Professional Standards

A

A: Application of knowledge and understanding

Identify and use relevant scientific understanding, methods and skills to complete tasks and address well defined problems

A1: Apply knowledge of underlying concepts and principles associated with area of work

What we are looking for here is an example of how you apply your knowledge in your day-to-day work.

A2: Review and select appropriate scientific techniques, procedures and methods to undertake tasks

This means that you can explain the underlying reasons for undertaking tasks and why a particular procedure, technique, or process is appropriate. Your example, may for instance, describe:

- The principles behind the activity that you are undertaking and any associated technology

- The reasons behind the choice of method used to carry out the activity and the criteria which form the basis of what you need to achieve the end result.

A3: Interpret and evaluate data and make sound judgements in relation to scientific concepts

This means you can explain how you recognise when your activity appears to have been successfully carried out, or not, and what data, observations, or measurements you are evaluating mean, relating it to the underlying principles.

You should also be able to describe how you present information in an appropriate manner, to explain your judgement. Examples may include where you have stated whether the activity has worked well or not:

- If successful, your example should describe the rationale/scientific basis behind this conclusion and why the data, observations, or measurements might mean this

- If not, how you gave reasons why the activity 'failed' and what you proposed to do next time to address this. Your example should also include how you explained/demonstrated the results of the activity. This could include comparing it with results from a number of different activities.

B

B: Personal Responsibility

Exercise personal responsibility in planning and implementing tasks according to prescribed protocols

B1: Work consistently and effectively with minimal supervision to appropriate standards and protocols and know when to escalate appropriately

We are looking for an example of how you carry out work with minimal input from your supervisor for certain key tasks, experiments or procedures associated with your role and completing them to the appropriate standards and time frame. We are also looking for evidence that you know when to escalate appropriately and that you can make a judgement on when to escalate.

B2: Demonstrate how you apply safe working practices

This means that you can explain the safe working practices applicable to your area of work and describe how you follow them. Your examples could include:

- Risk assessments associated with your work

- Relevant Health and Safety regulations, e.g. COSHH, Noise, Manual Handling

- Relevant Home Office Licences

- Safety training courses you have successfully completed for your laboratory role

- Any monitoring of safety within your work, e.g. for radioactivity, chemical exposure

- Safety equipment and control.

B3: Take responsibility for the quality of your work and the impact on others

This means that you can describe how you take responsibility for the quality of the work that you undertake and its impact on others within defined parameters and timelines– including if an activity does not work in the way that you expect. For instance, your example could include how you:

- Ensure that an activity is carried out to the agreed standard or protocol (e.g. good laboratory/ workshop/design practice) and your example should provide evidence for this

- Understand when something might not have been carried out quite correctly and what impact it could have on the quality and reliability of the outcome

- Point out 'good experimental data' and 'bad experimental data' and the reasons why the bad data might have occurred.

C

C: Interpersonal Skills

Demonstrate effective communication and interpersonal skills

C1: Demonstrate effective and appropriate communication skills

What we are looking for here is an example that you are an effective communicator. The example can be through appropriate oral, written or electronic means. Your examples should, for instance, include a description and details of:

- How you discuss and agree objectives with your supervisor

- How you discuss and agree objectives in team meetings

- How you describe or present your work or other aspects of lab, workshop, or section work (e.g. safety updates, method updates) to your supervisor or colleagues

- How you prepare written reports on your work

- How you train students or staff in the use of equipment or processes

- How you demonstrate the processes or systems

- The part that you play in induction of new staff or students.

C2: Demonstrate effective interpersonal and behavioural skills

This means that you can demonstrate skills that you use to interact with colleagues in a constructive way within the work setting. In these situations, it may be appropriate to discuss these with your supervisor, as an external perspective is often very useful in this regard.

Your example should also describe how you ensure your method of interaction is appropriate for:

- Interacting with researchers, technicians or other members of staff

- Interacting with students or trainees face to face

- Interacting with external colleagues (such as suppliers, couriers etc.).

C3: Demonstrate an ability to work effectively with others

This means 'team-work', which can be in a large team or on a 1:1 basis. Your example should illustrate how you worked collectively with others, what your specific role was within the team, and what the outcome was. For instance this might include:

- How you work with researchers, technicians or other members of staff

- How you work with students or trainees face to face

- How you work as part of a team, working group, or committee.

D

D: Professional Practice

Apply appropriate theoretical and practical methods according to protocol

D1: Recognise problems and apply appropriate scientific methods to identify causes and achieve solutions

What we are looking for here is an example of where you have problem solved or attempted to problem solve.

D2: Demonstrate how you use resources effectively

This means that you can give examples of work that you have undertaken where the method, procedure, programme, equipment, or materials used were chosen as the best (or most relevant) to use. Your example should describe how you planned and organised these to complete the task, and how you reviewed your choices – why the one you selected was the best compared to others that are available. This might include:

- Cost effectiveness

- Time taken

- IT considerations

- Machine tool time

D3: Participate in continuous process improvement

What we are looking for is an example of how you have improved the efficiency of a way of working. For example, this could include maintenance of stock levels, improved methods, new ways to increase throughput, health and safety or ways to increase cost-effectiveness. Examples might be your role in:

- Looking for cheaper resources

- Buying equipment or consumables

- Reviewing procedures

- Taking part in staff reviews

E

E: Professional Standards

Demonstrate a personal commitment to professional standards

E1: Comply with relevant codes of conduct and practice

This means that you can give examples of how you comply with a Code of Conduct (e.g. the IOP Code of Conduct) or how you work within all relevant legislative, regulatory and local requirements.

E2: Maintain and enhance competence in own area of practice through professional development activity

This means that you can give an example of an activity you have undertaken to enhance your competence in your own area of practice i.e. continuing professional development (CPD) and reflect on its impact upon you and others.

We are not looking for a list of courses but evidence of how your CPD benefits your practice and others. Your CPD may include work-based learning, professional activity, formal/educational, self-directed learning. All registrants will need to comply with the Science Council CPD Standards, and you should familiarise yourself with them and ensure your future CPD plans will meet these.

The Registered Science Technician standards report: Five most common mistakes:

1	### We, not I
	Now's your time to shine! We are awarding registration to you, not your team, so in all your explanations, you need to be clear on what your individual role was. If your entire answer references "us" and "we" with no "I" or "me," then you will need to reformulate what you've written.

2	### Being too brief
	After you've written your response, read it back and think about whether an assessor would be able to visualise what your role was. If they can't, you have not provided enough detail.

3	### Lacking depth
	It isn't just about what you did; it's about how and why you did it. You can only be awarded registration when our assessors are sure you know the impetus behind, and results from your work.

4

No outcomes

You need to demonstrate that you understand the difference that your work makes long-term. If you have improved a procedure, what does that mean in real terms? How do your colleagues benefit? What happens to the standard of your results?

5

Not referencing the heading

The competence report is broken into five sections with several sub sections. Read the section heading thoroughly before you write your response in the sub sections. You need to make sure you have fully absorbed what the standard is asking.

!

Personal details included

As the application process is anonymous, make sure all personal details are removed from your supporting documents and your application.

Refer to **our website** for further advice on completing your application.

Choosing your supporters

Along with your written application, you are required to supply details of two supporters who can verify the information in your application and comment on your suitability for Registered Science Technician. Sometimes you may find it necessary to provide the details of a third supporter in order to adequately cover the content of your application. Please note your supporters do not need to be professionally registered

Please consider the following when choosing your supporters:

First supporter – This must be someone who knows, or has known you professionally, working at a senior level to you and with direct knowledge of your role and responsibilities. This could be fulfilled by your current line manager, employer, head of department or faculty, head teacher or training scheme mentor.

Second supporter – This must be someone who knows or has known you professionally at a relevant point in your career.

Optional third supporter – A third supporter may be necessary if your application covers periods spent at several different organisations or if you undertake consultancy work.

Supporters should be familiar with your work, but not be a close friend or relative.

Please ensure that between them, your supporters are willing and able to verify your experience. They should be contactable by email for several months after you submit your application. Supporters will be sent links to the form they need to complete online via a generic IOP email address. Please ask your supporters to provide an email address that does not have a high firewall as this can cause delays in your application.

In the event of inconclusive comments from your supporters, we may contact them for further information or ask you to nominate an additional supporter. The assessment process places great value on the supporters comments so it is important that you select supporters that are willing to provide a full and detailed response.
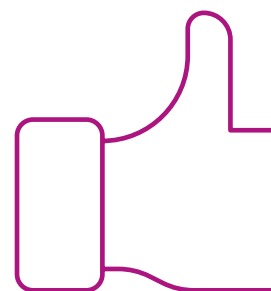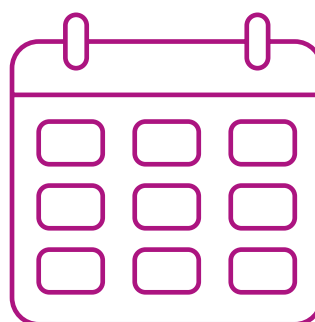
How is my application assessed?

Each application undergoes an independent assessment by a panel of Science Council registered members of the IOP; The panel assesses the information in your application, and the comments of your supporters, in order to decide if you have met the standard for Registered Science Technician. If the panel feel you would benefit from attending an interview they will recommend so at this point. The panel may also advise at this point that you need to demonstrate further learning, training or additional experience. Once assessed, you will be notified of the decision.

Applications may be deferred, and this is generally due to insufficient responsible experience. Occasionally, applications are deferred to allow the applicant an opportunity to supply additional information. A deferral can be granted for up to a maximum of 12 months. Where an application is deferred or rejected the applicant will always receive a letter explaining the reason for this and suggesting a future course of action as put forward by the assessment panel.

Optional Interview

All applicants for Registered Science Technician who have selected to have an interview will be asked to attend a Professional Review interview to discuss their application in greater depth. The aim of the interview will be to confirm information supplied within your application and to verify that you meet the required standards.

Interviews are usually held virtually although in-person interviews can be made available if required and would normally be held in London. Interviews are conducted by two members of the IOP who are professionally registered with the Science Council. On occasion there may be an observer present.
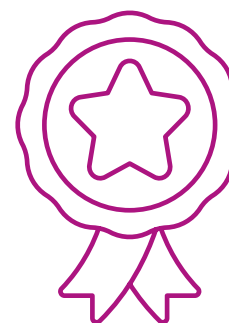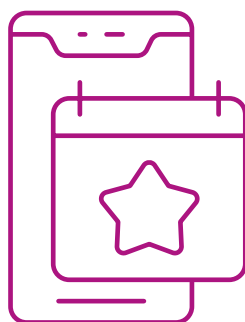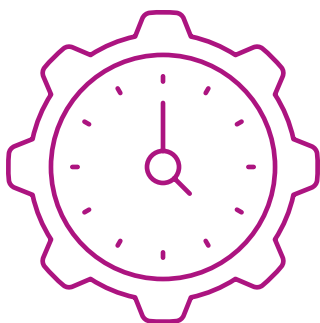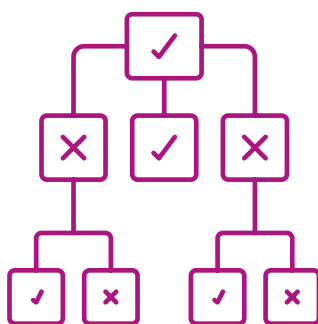
How long will my application take to process?

You will normally receive the outcome of your application within 12 - 16 weeks of from when your supporters' responses were received. The outcome of your application will be communicated to you by the IOP following assessment by the panel. You can log back onto the online application form to check the progress of your application.

Poorly prepared applications will be sent back to you to review. This will mean your application will take longer to process. It is in your best interest to ensure that the information supplied is as accurate, clear and as complete as possible.

If your application is successful, you will be invoiced for your professional registration fees before your details are registered with the Science Council. Current fees can be found on our **website**.

Document Checklist

To help you prepare your application please find listed below the documents that you will need to upload:

- CV

- Organisational Chart/Statement of seniority

- Qualification Certificates/Transcripts

Please remember that the following information should not be included in the supporting documents:

- Name

- Contact details

- Address

- Date of birth

- Age

- Marital status

- Social media links, etc.

Degree certificates should not be anonymised as these are verified by IOP staff.

The file name should not include your name.
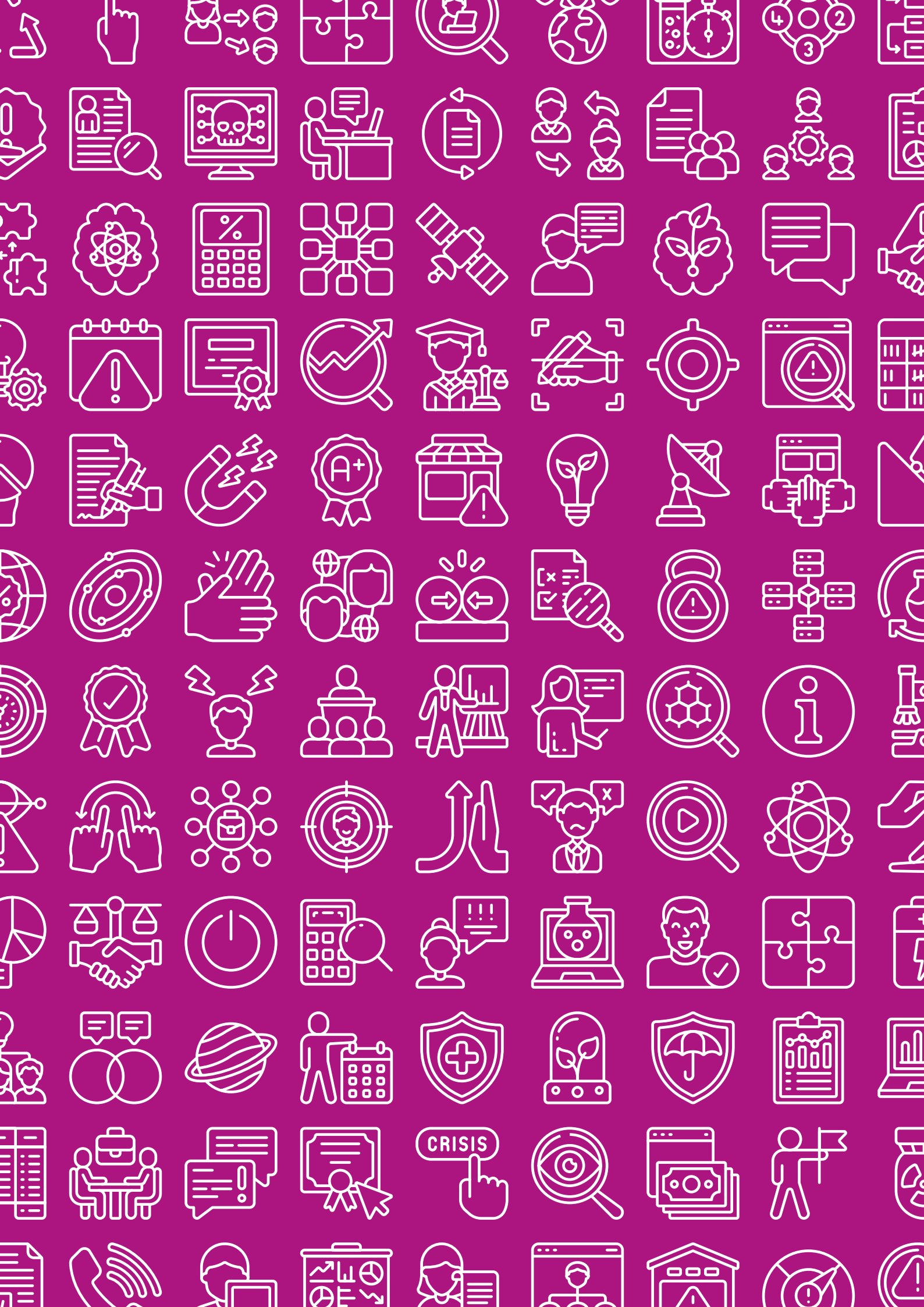
Visit our **website** or contact us to discuss your application on +44 (0)20 7470 4800
or **registration@iop.org**. Apply online: **applications.iop.org**

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