The CREST Silver Award at home: Student guide

Introduction to the CREST Silver Award

What does a CREST Silver Award involve? The CREST Silver Award mainly requires a student to:

- Complete minimum of 30 hours of work on one project area;
- Use scientific and/or technical knowledge appropriate to your age (14+);
- Develop your own project idea and experience the scientific process;
- Write a project report or portfolio of evidence.

www.crestawards.org




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Before your project

Read through this student guide. It will make the CREST process easier for any adults supporting you. If you are unsure of anything, they should be able to help.

During your project

Look at the criteria we use to assess your project, and make sure you understand what you need to do to get a CREST Silver Award. Use the CREST criteria as a guide, ensuring all the criteria are covered as you work. Take lots of notes of what you do, including your planning, from early on in the project. This will help you to produce your report and personal reflections. We understand that in the current climate practical work may be limited, or not possible. Check out the different types of CREST project that you could submit.

You should create a risk assessment before you begin any practical activity. You can use the CLEAPSS student safety sheets to help you, and check your risk assessment with an adult, preferably a teacher.

CREST criteria

1. Planning your project

- Set a clear aim and break it down into smaller steps/objectives
- Explain the wider purpose of your project
- Consider different ways to do your project
- Describe your plan for how to complete your project and give reasons for the approach you chose
- Explain how you planned your time and organised who would do what

2. Throughout your project

- Say who and what materials you needed to help complete your project
- Summarise the background research you did to help you understand your project and where you found the information

3. Finalising your project

- Make logical conclusions and explain the implications for the wider world
- Describe how what you did affected the outcome of your project
- Explain what you learned and how you would change your project if you did it again

4. Project-wide criteria

- Show understanding of the science behind your project
- Describe how you made sensible decisions about your project. Consider safety and risks
- Show creativity in the way you carried out your project
- Explain how you identified and overcame problems
- Explain your project clearly in writing (and conversation, if relevant)

Producing your report

At the end of the project, you will need to produce a report to introduce, describe and evaluate your work – this does not have to be a written report. However you produce your report, make sure you demonstrate how you met the criteria.

Alongside your report, you will need to complete the CREST Silver Award student profile to check you've covered all of the assessment criteria in your report. The profile form is there to help you as you write your report, so completing it at the end with your report should be very straightforward.

If you are working as part of a team, your team can produce a joint report but each team member should have a separate student profile form. Not doing so will mean being asked to resubmit.

When you submit online, a project completed by a group can be submitted jointly, with one report and a profile form per student. You can also submit separately using the same report and your own profile form. **Groups that have done separate project work should submit separately, so that each project is assessed on its own merits.**

Remember to:

- Number the pages in your report or structure the work that you produce in manageable sections. This will help you reference areas of the report when you fill out the profile form. On the profile form, put the page numbers from your report where the assessor can find the evidence and the paragraph number on that page. The pages in your report should be numbered, but you don't need to number the paragraphs in your report.
- Use your own words. We want to hear about your project and what you did. You should not use information copied straight from the internet in your report, unless quoting as a reference.
- Make sure to list the sources of your research information. At Silver, we don't mind what format your references are in, as long and it's consistent and you give us the information we need to find any sources you used. If you want advice on this, please ask an adult, ideally your teacher if you have access to them. If not, online research will provide examples of how you could reference.
- If you think evidence for some criteria can be found in your personal reflections, you should refer the assessor to these sections using the same system as below.

A sample profile form might look like this:

	Where do you show this in your report or project record?	Your notes to the assessor (optional)
1 – Planning your project		
Set a clear aim and break it down into smaller steps/objectives	Page 2, paragraph 5	
Explain the wider purpose of your project	Page 3, paragraph 3	
Consider different ways to do your project	Page 4 all, page 5 paragraph 4	Changed approach part way through after reflecting on how things were going. See appendix B.

Personal reflections

Writing your personal reflections

As well as the report that focuses on what you created or discovered and the process of your project, each team member should record personal reflections as part of their student profile.

This is where you think about what you did during the project and what you have learned. It is an opportunity to think about what you did well in your project and tell us what you think you could have done differently. This process of reflective learning is widely used in industry and universities to help people to learn and it is an essential part of the CREST process.

For team projects

Each team member will need to complete around half a page of reflection covering:

My role in the team and tasks I completed
How my project was successful/not successful
What I learned
What impact the results of my project might have on other people/the wider world
What I would have done to improve my work
What I'd do to develop the project in the future

We use this to see what everyone in the team did. Be clear and honest about what you contributed and don't be shy about telling us your individual achievements!

For individual projects

You need to add around half a page of reflection at the end of your report. It should cover:

Tasks I completed and how my project was successful/not successful
What I learned
What impact the results of my project might have on other people/the wider world
What I would have done to improve my work
What I'd do to develop the project in the future

A good example of a student's personal reflections from a team project would be:

I acted as team leader for our project. This meant I helped pull everyone else's work together, and helped everyone make sure we stuck to the plan we set at the beginning. Sometimes we disagreed about aspects of the project, and we discussed this as a team. I would try to find a way that everyone was happy with, or when this wasn't possible, made the best decision for the project on the information I had available.

I had never led a team before so I had to learn ways to get everyone to work together, stick to deadlines, and not take things personally. I struggled a lot at first, but I talked to our team mentor and he helped me find ways to do this really well. These included learning how to manage a meeting, and keep information flowing so everyone knew what was going on.

To improve our project, I would have spent more time getting the details of what the mentor wanted clear for all of us at the beginning of the project, so we had a much better idea of what we were aiming for. This would have helped us set off in the right direction instead of wasting time going in directions that wouldn't work for the mentor.

In future, we would develop a more reliable propulsion system, and reduce the weight of the chassis, as we know the strain on the engine caused by the weight of the chassis was part of the reason why it failed. We also think our vehicle could be used in other production lines, and want to investigate the possibilities and potential markets for our mentor.

A good example of a student's personal reflections from an individual project would be:

I was attached to Dr Thomas' research team, working with him and one of his PhD students. My role was to investigate the tidal patterns in the Estuary to work out when the work on flood defences could be carried out. To complete my project, I had to gain an understanding of the work which needed to be done, the issues the tide would cause, and how available tidal information related to our site. I then had to come up with a way to use all of this information to provide the answer we needed. I did this by joining in the work of the group, to see how it all fitted together and bouncing ideas off my supervisor, Dr Thomas, and his PhD students. I was lucky that they also involved me in their work.

I have learned a lot of new engineering knowledge, about hydrodynamics, geology and flood defences. I have also discovered how difficult project work can be because it requires people with different skills and knowledge to work together. It takes a lot of effort to make sure everyone understands each other and doesn't make wrong assumptions.

To improve my project, I would have spent more time understanding what was required at the beginning, so I had clearer aims and objectives, and asked more questions when I didn't understand. This would have saved me a lot of work later in the project. I would also have used more than one set of tidal data to make my predictions more accurate.

In future I would like to investigate the use of 'soft' flood defences which help to maintain biodiversity while providing effective flood defence.

Assessment

After your project

Your assessor will need the following to assess your project:

- A copy of your project report
- A completed CREST Silver Award student profile, which includes the project checklist and personal reflections about your experience and what you learned

When the project is done by a team, each team member needs to submit an individual student profile – not doing this will mean you are asked to resubmit.

To get a CREST Silver Award, you need to demonstrate at least 11 of the CREST criteria at acceptable standard or above, covering all four sections of the criteria. You should also complete and demonstrate around 30 hours of project work.

How we assess

1. You or an adult should upload your project report and profile form. You will need to create a log in to do this, if you haven't already.
2. The assessor will read the documents you submitted.
3. The assessor will provide feedback on your work against the different assessment criteria.
4. If you meet the standard, you will receive your Silver Award. If not, we may:
    - recommend you resubmit for a Bronze Award
    - ask for further work to be done or request further information

What next for your CREST Award?

Join a growing community of scientists and engineers

You can keep up with CREST Awards via Facebook:

www.facebook.com/CRESTAwardsUK

Celebrate your achievements

University applications

Use CREST to enhance your UCAS personal statement - they're well regarded, high-quality and a tangible recognition of success.

Job applications

You could mention your Award in your personal statement on job applications and in interviews. When you mention your project, it's a good idea to include some reflections on the skills you used and what you learned through the CREST process.