CREST AWARDS | BRONZE AWARD Workbook

Student/team members' names	
Project title	

Introduction

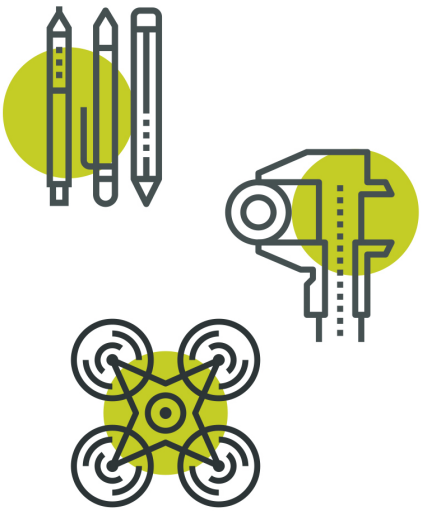
You can use this workbook to plan, record and evaluate your project. Fill in the sections as you complete your project. If you are filling the workbook in electronically, all the boxes should expand so that you can add as much detail as you would like. If you are filling it in by hand, feel free to add extra sheets if you don't have enough room.

1. Planning your project: Set an aim for your project, and come up with ideas about the best way to achieve that aim.

2. Throughout your project: Tell us about what you did, how you organised the project and what you found out.

3. Finalising your project: These questions help you think about what you've done and learned during your project.

All scientists and engineers are creative. They use scientific and technical knowledge, make decisions, solve problems, evaluate and communicate their work. Throughout your CREST project you'll need to use and show these skills too.



Top tips!

- Record what you do in each session. This will help you to talk about your project with your teacher and keep track of your progress.
- If you don't understand something or your project isn't going the way you planned, ask your teacher or project lead for help.
- It doesn't matter whether your project idea 'works' or not – but it does matter that you can explain why it did or didn't work.
- **Do not** upload documents or images that could be used to identify yourself e.g. photos of you or your classmates, personal contact details etc.

Managed by: BRITISH SCIENCE ASSOCIATION

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1. Planning your project

Setting out what you are going to investigate/design

1.1 Set a clear aim for your project. What do you want to do/make/find out? Can you break this down into smaller steps or objectives which will help you to plan your project?

1.2 Why do you want to do your project? How does it link to everyday life? Does it affect you or people you might know?

1.3 What are the different ways that you could complete your aim? Write your aim in the centre below, and put your ideas around the outside. If you want to add extra drawings/diagrams then please include these at the end of the workbook or separately.

	write your aim here	

1.4 What can you find out about your project idea? This will help you decide how to do your project. Has anyone else done a similar project before? If so, what did they do? Where did you find the information?

What I found out	Where I got the information from

1.5 Which of your ideas is the best way to achieve your aim?

1.6 Why did you choose this idea or approach? You can use diagrams or words to explain.

1.7 Whatever kind of project you decide to do, you need to carry out some kind of test or research This might be a scientific investigation; testing out a design; testing whether a piece of communication works or testing how valid your research is.

Testing is an important part of the project process and you might decide to change or add to your ideas after you test them out. It's important that your tests are as fair as possible and that you have thought about all the possible variables.

What I will test	How I will test it	How I will control the variables
Example: How the amount of baking soda affects how long a bath bomb fizzes for	*Make bath bombs with different amounts of baking soda and put in water*	*Same size tub for water* *Same volume of water* *Same temperature water* *Same weight of other ingredients*

1.8 Stay safe! Are there any health and safety risks in what you plan to do? What can you do to minimise the risks? Check your plans with your teacher.

2. Throughout your project

Now you have planned your project, it's a good idea to break the project into tasks that will need doing and organise:

- When each task needs to be completed by
- Who does each task (if working in a team) and if others may need to help you
- What resources you might need

If you have a final project deadline (e.g. to enter a competition) then keep this in mind.

2.1 The following table might be useful (the first row is filled in as an example). You can add to it throughout the project and use it to track when things have been completed. It is a good way to decide if and when you might need help from other people (i.e. a technician, teacher or mentor) so that they can plan their time too.

Task	Who's responsible?	What help might I/we need?	What resources do I/we need?	Completed by when?	Finished?
Example: Decide what practical tests we want to perform on our product so we can set tests up	*Sarah*	*Teacher to show us what equipment is available*	*Access to the school labs to see equipment*	*Beginning of February*	*Feb 5th*

2.2 Record what you do as you carry out your project. This might include records of more detailed research, diagrams, descriptions of methods used, photos/videos or even weblinks for blogs. Think about any decisions you had to make, maybe to overcome a problem, and record how you came to your decision.

2.3 Record what you find out. Record the results of your tests and think about what they tell you. Were the results what you expected? What have you learned from your tests? Also note down if you changed your plans or ideas based on your tests.

3. Finalising your project

An important part of CREST projects is thinking about what you've done. At the end of your project, use these questions to help you reflect on what you did. Remember it's OK to say you didn't get something.

3.1 Was your project successful? Why? What went well in your project? Did you meet the aim that you set at the start? How?

3.2 What impact could your project have on other people? For example, does it relate to environmental issues or provide a solution that may improve people's lives?

3.3 What would you do differently if you were doing this project again? Why? What could you have done to make your project even better?

3.4 What do you think you have learned from doing this project? What do you know at the end of your project that you didn't know at the start? What can you do now that you couldn't do before? How did learning these things help you with your project?

3.5 How will you communicate your project? Who to? Who would be interested in the results of your project? What is the best way to share your work?

Space for further notes/ drawings/ reflections (optional)