



Engineering hero mission log activity

(aimed at ages 7-11, Key Stage 2)



Engineers are scientists that design and build things. Their work helps to improve the way things work, find new ways to do them and help solve problems.

Sometimes they help with things that you would recognise from the activities you do every day. For example, how the oven works in your kitchen to cook food, how the engine of a car works to get you from home to school, how your TV shows you your favourite programmes, or how your shoes are made to stay tough and strong when you are running and playing!

Engineers also help to solve big problems and challenges around the world. This might be helping to reduce flooding risks, or to make safer buildings, finding new ways to create electricity, or inventing new ways to deal with waste and recycling.

Activity



Part one

Let's talk about engineering heroes

Our heroes are all busy working on ideas where they can use their engineering powers and skills. Take a look at our four hero squads to find out a little bit about them and what they do.

- Talk about the different heroes, what things do you notice?
- Is there a hero whose job sounds really interesting or exciting to you?
- We're sure you have some of these skills already too! What skills are you developing that you recognise in our heroes? Talk about the different kinds of people and skills you can see in the hero squads and that you can see in yourself too.





Part two

What kind of engineering hero are you?

We hope that learning a little about our engineering heroes has given you lots to think about. Now it's your turn to be a hero or create a new one.

What is happening in your everyday life, or the world around you that you care about a lot?

Use your imagination to think about a problem you could solve, or something you could design or build to engineer an improvement to something. Maybe you need a robot to tidy your bedroom? Perhaps you want to tackle plastic waste in the ocean? How might you use your powers and skills to do this?



Part three

Create your mission log!

Now that you have an idea for a problem to solve, or a new way to do something we'd love to hear all about it.

Your mission log is like a journal or diary entry, capturing your thoughts and plans to be an engineering hero, finding a solution to the situation or problem you have identified.

- Start by telling us who the mission log belongs to.
- State the problem or situation that you want to tackle.
- Explain why this is important to you.
- Next, tell us about the powers and skills you have to help you.
- Now, write your mission log, describing how you have come across this situation and what you have done to tackle your engineering challenge. What is your solution? How will it work? Who did you need to help you? How will things be better because of what you have done?

You can produce your mission log on paper or on a computer. You can add pictures or diagrams to your mission log. It should be no more than one side of A4.



Adults, please read: For details on how to submit children's work to us, please visit www.cranfield.ac.uk/engineeringheroes

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