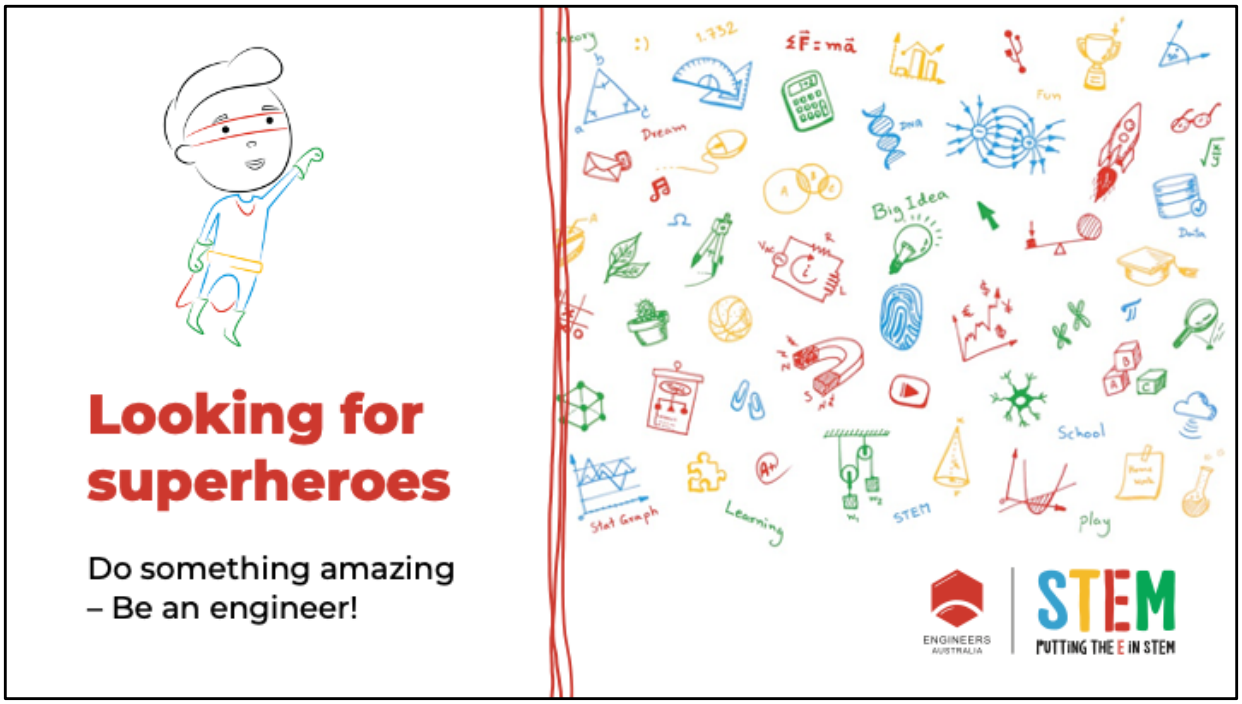
Presentation Notes

Slide One



Slide Two

Your aim: inspire kids about the big-picture of why engineering matters, and how engineers shape the future...without using the word 'engineering' in this slide.

(Choose an application of engineering, and describe the person who does this without saying 'engineer', e.g.)

- Improving the environment
- Building roads, bridges and skyscrapers
- Inventing a sustainable future

How do you get there? Enjoy learning about:

- How things work
- How to make things
- Be a good problem solver

Slide Three

Your aim: illustrate how engineering touches modern-day life.
(Depending on your available time and your interests, you could choose one or more of these to talk about.)

Did you know that engineering is everywhere? From the games you play to the smells you sniff - engineers help to change the world.
Examples:

Lego
<video Robot maker>
0:40

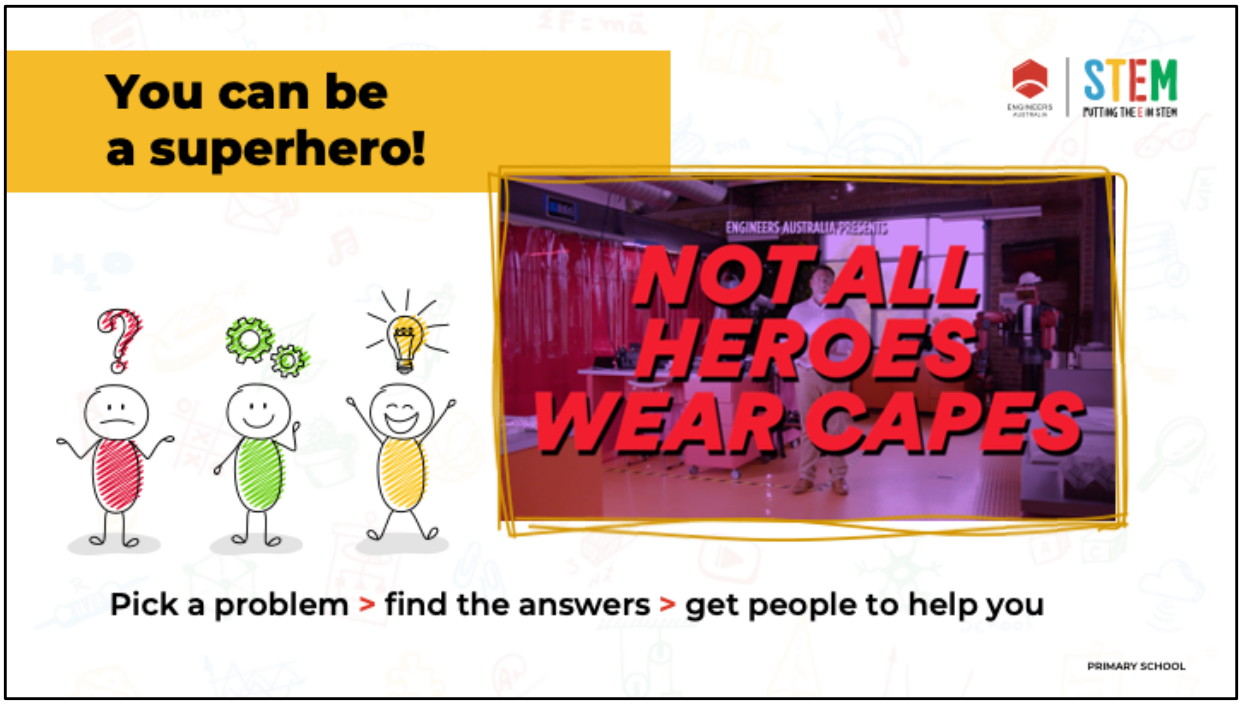
TV
<video BBC TV engineer>
0:40

Fragrances
<video Fragrance Finder>
0:40

We call those who use their learned skills to solve problems 'engineers' – they're like quiet superheroes no one hears about.
There are many kinds of engineers.

Engineers bring us most things we enjoy today.

Slide Four



Your aim: connect engineering disciplines with real-life problems (and their answers) that could shape the future.

There are people who work every day on solving some pretty big problems, like:
- how to grow gold on trees
- reverse-engineering butterflies
- building the world's largest 3D printer

<video 1:04 >

(if you have a practical example in your discipline, you could also use this to personalise the presentation)

Point out that:
- Problem solvers learn a set of skills we call 'engineering'
- It takes great team to bring a project to life
- You start learning how to do this at school

Eg:
- Grow gold on trees = chemical engineering
- Recycling plastic = chemical and mechanical engineering
- Building a skyscraper = civil and mechanical engineering

There are 3 simple steps to changing the world:

1. **Pick a problem**
2. **Work out the answers**
3. **Get people to help you**

The takeaway - maths, science and technology subjects are the pathway to solving these problems.

Slide Five

Your aim: introduce the videos one at a time, then generate some interaction.
(Depending upon audience size and age, ask for ideas, then talk about the ideas' possible problems and ways to solve them, etc.)

Engineering superheroes solve problems.
Let's think about:

- finding a new way to recycle plastic?

<video - Darren recycling plastic>
1:35

- building a skyscraper that reaches right into space?

<video - Isabel shaping matter>
1:00

Slide Six

Wrap-up time. Discuss how students can get involved.

- Encourage attendance and interest in class and engineering-related subjects like maths and science
- Encourage self-motivated research and learning (resources for this featured on the slide)
- Encourage kids to start thinking about ways to solve problems now;

as an example, leave them with an inspirational video on how to be an inventor ***(next slide).***

Slide Seven

Leave them with an inspirational video on how to be an inventor!

<Little Big Idea Winners> (Aus version)
2:34

or

<How to be an inventor> (US version)
4:59

Final Slide