

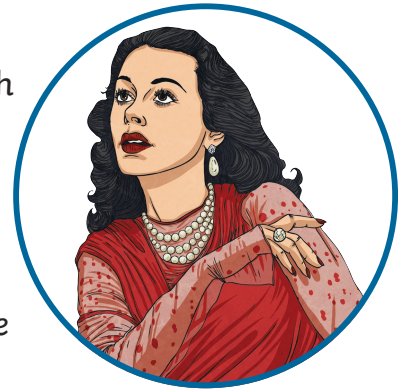
# Five Formidable Female Engineers

The word 'engineering' means 'making things work'. This could be in inventing or improving machines, how things are made or how things work. Engineers use maths, science and technology to solve problems, design, build and invent.

Many of us have heard all about great engineering men such as Isambard Kingdom Brunel, who is famous for his railways, bridges, ships and tunnels, but what about the women? Have you ever heard of Hedy Lamarr or Peggy Johnson? No? Well, read on to find out more...

## Hedy Lamarr 1914 - 2000

Hedy Lamarr was a famous Hollywood actress, which is a great achievement, but she was also an important inventor. She was born in Austria and moved to America where she worked on developing radio technology to let messages to be sent secretly during the Second World War. This technology is how mobile phones and Wi-Fi work today.



## Maggie Aderin-Pocock 1968 -

You might have seen Maggie Aderin-Pocock on the television as she is keen to help people learn about space and science. She started her career at the Ministry of Defence and then moved into to the world of space projects. Since 2014, she has presented The Sky at Night and other educational programmes.

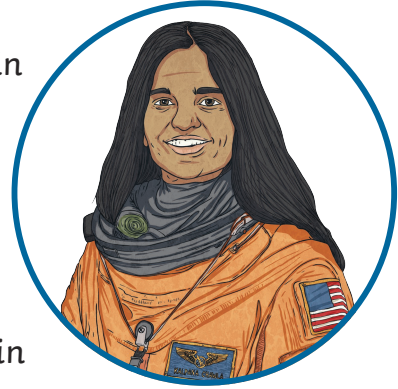
## Stephanie Kwolek 1923 - 2014

Stephanie was an American chemist from a Polish family. She worked for a company where she found that by mixing certain chemical plastics called 'polymers', a new material was made – this was named Kevlar. It was very strong and light so it is used in many products, e.g. vehicle tyres and bulletproof vests.



### **Kalpana Chawla 1962 - 2003**

Kalpana was from India, where she gained a degree in aeronautical engineering. After that, she travelled to America where she gained another master's degree in aerospace engineering. If that wasn't enough, she went on to gain a second master's degree and a PhD in aerospace engineering with the aim of becoming an astronaut – she became the first Indian woman in space.



### **Peggy Johnson 1963 -**

Peggy Johnson was named the number one Most Powerful Female Engineer in 2017. She started with a degree in electrical engineering before spending twenty-four years working for Qualcomm and then on to become an Executive Vice President for the famous computer company Microsoft.

# Questions

1. What was Isambard Kingdom Brunel famous for?

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2. What did Hedy Lamarr's invention allow people to do?

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3. Name two things that we use today that would not be possible without Hedy Lamarr's invention?

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4. In the text the author uses the word '**developing**'. Which word most closely matches the word '**developing**'? Tick one.

- appear
- become smaller
- decline
- improve

5. Which television programme does Maggie Aderin-Pocock present?

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6. What is the name for the chemical plastics that make Kevlar?

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7. What was Kalpana Chawla the first Indian woman to do?

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8. Which of these women do you most admire and why?

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# Answers

1. What was Isambard Kingdom Brunel famous for?

**Isambard Kingdom Brunel was famous for: (any two from) railways, bridges, ships and tunnels**

2. What did Hedy Lamarr's invention allow people to do?

**Hedy Lamarr's invention allowed people to send messages secretly.**

3. Name two things that we use today that would not be possible without Hedy Lamarr's invention?

**Hedy Lamarr was a Hollywood actress as well as an engineer.**

4. In the text the author uses the word '**developing**'. Which word most closely matches the word '**developing**'? Tick one.

appear

become smaller

decline

improve

5. Which television programme does Maggie Aderin-Pocock present?

**Maggie Aderin-Pocock presents 'The Sky at Night'.**

6. What is the name for the chemical plastics that make Kevlar?

**The chemical plastics that make Kevlar are called polymers.**

7. What was Kalpana Chawla the first Indian woman to do?

**Kalpana Chawla was the first Indian woman to go into space/become an astronaut.**

8. Which of these women do you most admire and why?

**OPEN ENDED**