

Stories of inspiring women in STEAM:

Asta Hampe

Prepared by MIND

Project Title

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Asta Hampe, the blueprint of engineering



Early Life and Family Business

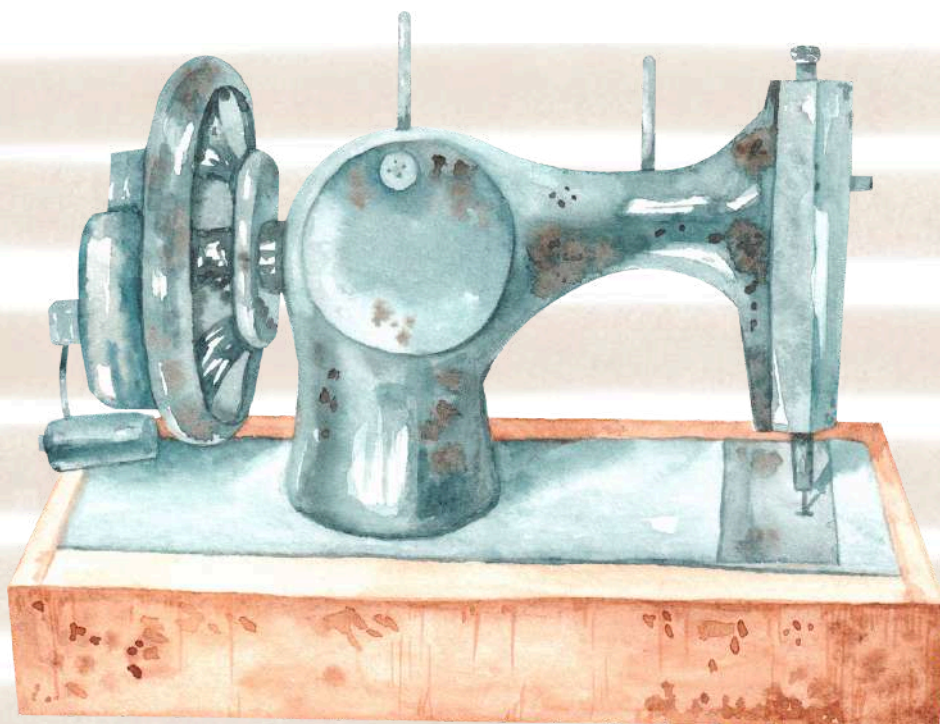
Asta Hampe was born in 1907, more than 100 years ago, in a time when people thought that boys and girls should have different jobs and that each one had its place.

Asta's family had a textile business that involved weaving machines. She was a curious girl and was always fascinated by these machines and how they worked. For her, it was like seeing magic!



Question for children:

Have you ever felt curious to know how toys make sounds or light up? These were Asta's feelings when she saw those big machines working!



Because of this, she dreamed of studying engineering one day. And this is what engineering is all about: figuring out how things work and making new machines and tools to solve problems and make life easier for everyone. However, her mom and dad expected Asta to help at home and with the family business instead.

Although she was told that “engineering wasn’t for girls”, Asta’s curiosity kept on growing. Whenever she could, she would read a book about machines and inventions and would be amazed by each story of creation and discovery.



A life-changing magazine

One day, Asta found a magazine that would change her life. It was laying on the ground and was dirty, but the cover caught her attention so she picked it up and took it home.



Later that evening she read the magazine. Inside, she found a blueprint of a radio and an explanation of how they work. She was mesmerised! The instructions showed her that, after all, machines weren't magic! They were things that she could understand and even build herself! This magazine opened a door for the world she wanted to be a part of. Now, more than ever, she wished to become part of this world of invention and discovery.



Question for children:

Imagine finding a map to something exciting—a treasure or a hidden place. How would you feel holding something that special?

Asta was excited, but she knew her family and others didn't really think girls should build machines. Still, finding out how they worked made her feel brave—and she didn't want to give up her dream.

Chasing dreams against the odds

When Asta shared her dreams of building machines, not everyone understood her excitement. Her dad wanted the best for her, but he didn't quite approve of it. In his eyes, Asta should focus on helping the family and learning the skills that were considered "right" for girls at the time, like cooking and sewing. *"Building radios? That is a job for boys",* he thought.

Asta felt sad and even discouraged. Her heart was taking her toward machines and engineering, but her family expected something else from her.



Question for children:

Have you ever wanted something so bad that others didn't understand? How did that make you feel?

Asta didn't know what to do, but kept her dream close, hoping that someday she would find a way to make it come true.

Finding support in unexpected places

Asta wasn't completely alone. Her uncle and her grandfather saw something special in her curiosity. They knew Asta was different and admired her passion to learn things that most girls were not interested in.

Sometimes, they would sit with her and show her small machines, explaining how each part worked. They even gave her old machine parts to look at and learn from. Her uncle and grandfather believed in her dream and said they would help pay for her studies one day.





Explanation for children:

Sometimes, we need people in our lives who cheer us on, even when things are difficult. These people are like “mentors”—they give advice, encouragement, and sometimes a little help to make our dreams possible.

With their support, Asta was now hopeful. There were still challenges ahead, but at least she knew she wasn't alone and that little by little she was getting closer to her dream.



A new adventure begins

After years of dreaming and studying hard, Asta finally got the chance to attend the Technical University of Munich. She had to leave her family behind and move to another city. Everything was new and different. At the University, she quickly noticed that almost everyone around her was a boy.



Question for children:

Imagine you are starting at a new school, and you're the only one who looks like you. How would you feel? Would you feel nervous, excited, or maybe both?

Asta was intimidated, but most importantly, she was excited and ready to learn. She was entering a whole new world and wanted to prove that she also belonged there.



Strength in friendship

The University environment was hard. Some boys thought Asta didn't belong there and would provoke her by saying she should be at home. Asta used their words as motivation to keep moving forward.



Question for children:

Have you ever tried something hard and had people doubt you? Did you keep going, or did someone help you feel braver?

However, Asta also found support from teachers who believed in her. She also met Erika Fuchs, a young woman who she became friends with who wanted to prove that women could be good in their studies. Having a friend like Erika made Asta feel stronger and ready to face any challenge.





Explanation for children:

Sometimes, when people are mean or tell us we can't do something, it can make us feel like giving up. But having a good friend who understands and supports us can make a big difference. Friends help us feel brave and remind us we're not alone.

Every barrier only made Asta more determined to succeed. She realised that her dream wasn't just about learning how machines work; it was also about proving that anyone, no matter the gender, can achieve great things with hard work and belief in themselves.



Staying strong during hard times

As Asta grew older, she found jobs that allowed her to work with machines and learn about technology and even more about engineering. She worked as a physicist at a hospital, helping to fix and manage machines that assisted people.

Then, one of the hardest times in Asta's life arrived - the Nazi regime took control of Germany. The government enforced strict and unfair rules, judging people for their origins and beliefs. Because Asta didn't agree with these rules, the hospital had to let her go because they feared being punished by the government.



Explanation for children:

This time in Germany was very strict and unfair for many people. They couldn't speak freely or make their own choices as easily, and people who didn't follow the government's rules could be punished just for having different ideas.

Asta had to be very brave and careful to keep following her dreams.



Question for children:

Have you ever had something important taken away from you, like a favourite toy or activity? How did you feel? Did it make you want to try harder to get better at something?

Despite the challenges, Asta kept moving forward, each new job showing her just how important her dream was.



Defying expectations

For Asta, life was especially challenging. Because Asta was a woman working with machines, some people already didn't treat her fairly. Now, with the unfair government rules, it became even harder for her to do her job. Some people told her to stop working with machines or she could get in trouble.

But Asta was determined to keep doing what she loved and it was impossible to ignore her exceptional skills and contributions.

This earned her a job in different places, and even at the German Navy, where she worked as an engineer in radio technology.

Asta was now one of the few women in her field, and she was gaining valuable experience in areas that many people didn't expect a woman to know much about.



A woman of recognition

After years of hard work, Asta finally achieved one of her biggest goals. She earned her doctorate degree, a very high honour in STEM fields that proved her expertise in the field. Not long after, she was offered a position as a professor. Now, not only was she respected by her peers, she was also in a position to make a real difference in the world of engineering.



Explanation for children:

STEM represents the fields of Science, Technology, Engineering and Mathematics. Nowadays, Arts is also included in this group!

Becoming a professor was the chance she needed to show others that girls and women could succeed in any area they chose. Her achievements earned her recognition, and people began to see her as a leader and inspiration.



Question for children:

Have you ever worked hard for something, like learning to ride a bike or finishing a big puzzle? How did you feel when you finally did it? Amazing, right?

Through her perseverance, Asta reached her goals and gained a special place in engineering. But she knew her journey was far from over.

Fighting for others

With her new position and influence, Asta decided to help other young women who, just like her, wanted to study engineering and technology. She joined groups that wanted boys and girls to have the same chances at school and work. Asta shared her own story to show that girls can be scientists, engineers, or anything they dream.



Explanation for children:

Asta didn't just work on her own goals. She also wanted to help other girls achieve their dreams in technology and engineering fields.





Question for children:

If you could make one big change to help others, what would it be? Why is that change important?

Asta's journey taught her that dreams are worth fighting for, and she wanted to make sure other girls knew they had the right to dream big too. She worked to create fair rules so everyone would have a chance to succeed in science, technology, engineering and mathematics. Remember: STEM!



Dream
BIG

Lasting legacy

As a professor, she was in the position to help others. She mentored her students, guiding them through challenges and encouraging them to work hard. Many of her students were young women who looked up to her and saw her as proof that girls could be engineers and scientists.



Explanation for children:

A mentor is someone who helps other people learn and gives advice. Asta helped her students when things were hard and showed them how to keep trying, even if they felt like giving up.



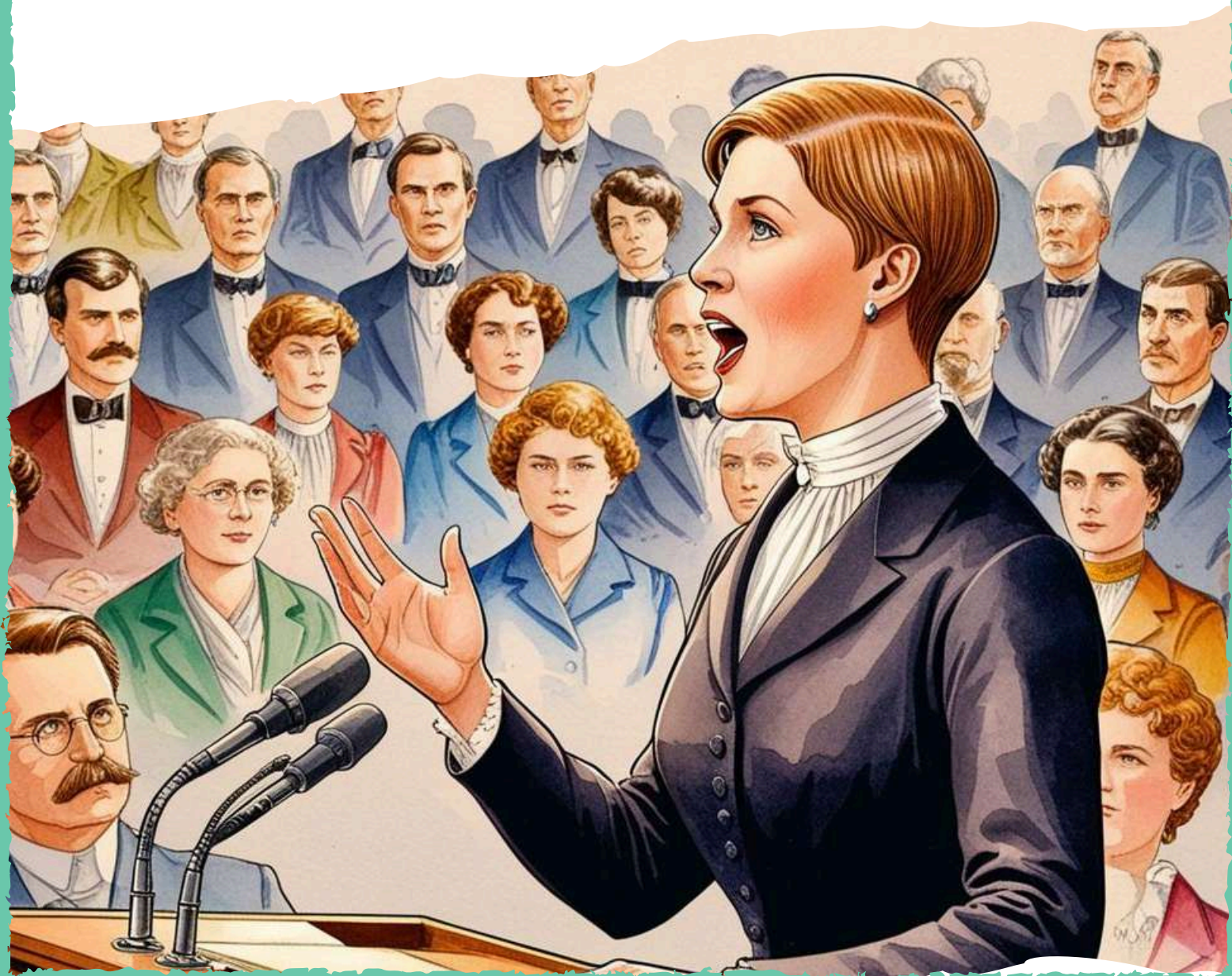
STEAM is for everyone!

Asta's influence grew beyond the classroom. She wrote papers, gave speeches, and joined groups dedicated to creating fairer opportunities for everyone who wanted to study STEM fields. Her life's work was about creating a better world for future youngsters, especially girls.



Question for children:

Have you ever helped someone learn something new, like how to play a game or draw? How did it feel to be their teacher?



Inspiring the future generation

Asta had come a long way from the little girl who was fascinated by machines and how they work. Now, her journey had brought her to a place where her story could inspire others all over Germany and even beyond. Because of her work, more girls started to see STEM as a field where they belonged.

Schools and universities slowly started to make changes by becoming more welcoming to girls, and Asta's success story gave hope to many.





Explanation for children:

Can you think of someone you look up to?
And what makes them special in your eyes?

Asta faced many challenges, but those challenges made her stronger and helped her prove she belonged in her field. Her bravery opened new doors for others, encouraging them to follow their dreams and reach for the stars.





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