



MORE THAN INVENTIONS!

Let's read about the inventions of two brilliant women. Answer the questions below orally and then complete the activities on the next page!

SOLAR PANELS:

Mária Telkes, a Hungarian-American scientist, worked at the Massachusetts Institute of Technology in the United States during the 1940s. She was so passionate about harnessing the power of the sun that she earned the nickname "the Sun Queen." In 1948, she designed the first house that was completely heated by solar energy. Although this system only worked for three years, it was a groundbreaking achievement for its time.

Comparing the solar technology of Telkes's era to today's advancements, we can see significant differences. Telkes's solar-heated house was an early experiment in using solar energy, and while it was a pioneering effort, it had limitations in efficiency and durability. Modern solar technology, on the other hand, has advanced significantly and is now far **more reliable** and efficient.

For instance, today's solar panels are capable of converting sunlight into electricity with **much higher efficiency than** the systems Telkes developed. Modern solar energy systems can power entire homes, businesses, and even large-scale industrial operations, whereas Telkes's system was only able to heat a single house for a limited time.

Additionally, modern solar technology is **more versatile and widely adopted**. Telkes's invention was an early prototype, and it took decades of research and development to bring solar technology to the point where it is today. Now, solar energy is used not only for heating but also for generating electricity, providing hot water, and even powering vehicles.

In terms of impact, Telkes's work laid the foundation for future advancements in solar technology. She demonstrated the potential of solar energy at a time when the concept was still new and not widely accepted. Her pioneering efforts showed the world what was possible and inspired **further** research and innovation in the field.

Today, solar technology has the power to transform our lives and save our environment. It offers a **cleaner, more renewable** source of energy that can reduce our dependence on fossil fuels and help combat climate change. While Telkes's early solar-heated house was a remarkable achievement, the modern advancements in solar technology have made it an essential part of our efforts to create a sustainable future.

LIFE RAFTS:

The modern life raft was invented by Maria Beasley in 1880 and then improved in 1882. Before her invention, life rafts were just wooden platforms, which were not very effective, and as a result, many people died in accidents at sea. Beasley's life rafts were a significant improvement because they were **safer** and **more reliable**.

For example, four of her life rafts were used on the Titanic alongside the ship's normal lifeboats. When the Titanic sank in 1912, only 706 people survived, and nearly 200 of them were in the life rafts designed by Beasley. This means that almost 30% of the survivors were saved by her innovative life rafts, highlighting the importance of her invention.

Comparing the older wooden platforms to Beasley's life rafts, the latter were **much more advanced**. The wooden platforms were simple and offered little protection, whereas Beasley's life rafts were designed to be **more stable** and could hold more people safely. This advancement undoubtedly saved many lives.

In terms of design, Beasley's life rafts were **far superior to** the earlier versions. The wooden platforms could easily capsize or break apart in rough seas, while Beasley's rafts were **sturdier** and **better equipped** to handle emergencies. This difference made a critical impact during the Titanic disaster.

To sum up, Maria Beasley's invention of the modern life raft in 1880, with improvements in 1882, represented a major leap forward in maritime safety. Her life rafts were a considerable improvement over the older wooden platforms, which contributed to the survival of nearly 200 people during the Titanic tragedy in 1912.

- **What significant achievement did Mária Telkes accomplish in 1948, and why was it considered groundbreaking for its time?**
- **How does modern solar technology compare to Telkes's solar-heated house in terms of efficiency, versatility, and impact on our lives and the environment?**
- **How did Maria Beasley's life rafts differ from the wooden platforms used before her invention, and what impact did this have on maritime safety?**
- **What role did Maria Beasley's life rafts play during the Titanic disaster, and what does this signify about the importance of her invention?**

Classify the verbs in bold from the article into these two groups:

REGULAR PAST TENSE

VERBS

IRREGULAR PAST TENSE

VERBS



**REMEMBER TO USE THE
IRREGULAR
VERBS
LIST!**

COMPARING INVENTIONS!

If we want to compare two objects in both negatives or positive way we need to learn some rules of words formation / transformation.

By using adjectives, we can change them and transform them into comparatives.

Pay attention to the following words from the text. How do they change?

HIGHER **CLEANER** **CLEANER** **SAFER** **STURDIER**

As you can see, we add the **-ER** prefix, but... is this always the case? Have a look at the following words:

MORE RELIABLE **MORE VERSATILE** **MORE RENEWABLE** **MORE RELIABLE**

MORE ADVANCED **MORE STABLE**

In this group of larger words we add the word **MORE** to change them in the comparative function. This is because of the number of syllables. When there is a word with more than one syllable, we add this word to change it.

However, there are always exceptions to the rules, for example:

RIGHT: **RIGTHER** **MORE RIGHT!**

FUN: **FUNNER** **MORE FUN!**

WRONG: **WRONGER** **MORE WRONG!**

REAL: **REALER** **MORE REAL!**