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## Creative

🔊 Listen

Creativeness in sciences is evident for those who practice science, however, for those who do not, science appears to be either unflexible and acting according to some rules that can neither be understood nor questioned, or to be a work that has no place for individual approaches or competences. This misperception is problematic as it makes a professional life in the sciences unattractive.

Stories where this aspect plays an important role are:

- › Irene Joliot-Curie and her husband Frederic missed at least twice the chance to report a new discovery, which, when reported by their adversaries, won those a Nobel Prize. In 1935, their accurate observation skills finally earned them a Nobel Prize of their own, when they presented how man was able to generate new radioactive elements.  
[Joliot-Curie and artificial radioactivity](#)
- › The immediate use of solar energy is indeed known for quite some time already. This story tells you about the development of the first solar powered cookstove and the political and economical reasons, why it did not become a best practice model.  
[Mouchot and the solar cooker](#)
- › "The notorious scurvy" is maybe the best-known illness from which seamen of all times suffered. James Lind, a ship's doctor, was able to find the cause of the scurvy by employing a highly systematic approach: a comparative, experimentally-based study on his patients. More details can be found in the narration  
[Lind and scurvy](#)
- › The Bavarian War Secretary Benjamin Thompson has to solve the problem how to feed his army as economically as possible. But potatoes, which could provide the solution to this challenge, had a bad reputation at that time.  
[Rumford and nutrition](#)
- › The sheer multitude of chemical elements is very challenging to chemists in the 19th century. They ask themselves, whether there are still yet undiscovered new elements. A Russian solves part of the mystery with an interesting approach.  
[Dmitris Periodentraum](#)
- › The formulation of the mechanical equivalent of heat was instrumental in defining the first law of thermodynamics, which describes the conservation of energy. Two stories, which stress different aspects of the scientific work, will provide insight into Joule's set of experiments by which he determined the ratio of heat and mechanical work.  
[Joule und Energy](#)
- › When Emma Muspratt, daughter of one of Liebig's friends, became so ill she could not eat anymore, Justus von Liebig made the attempt to produce a meat extract which she could drink instead of eating the meat. The result is a precursor to modern bouillon cubes.  
[Liebig and nutrition](#)
- › In 1778, a strange line pattern in the grass leads Martin, Andreas and Michael to a talk of Georg Christoph Lichtenberg. He describes the generation of these patterns in his laboratory in Goettingen and why these patterns form at all.  
[Lichtenberg and the electrophorus](#)
- › Meet Marie Curie on her way from a promising student, who was born and raised in difficult times, to one of the most renowned female natural scientists in the 20th century. Learn especially her lifetime achievement, i.e. to verify the existence of yet unknown radioactive elements.  
Discoverer of two radioactive elements: Marie Skłodowska-Curie
- › Can something like a NOTHING really BE in existence? This story tells you about the german mayor von Guericke and his losing game to prove the existence of the vacuum.  
[Guericke and vacuum](#)

► Maria Sibylla Merian started to observe caterpillar cocoons and make drawings of those at the age of 13. Nineteen years later, she published her first book in which she laid out the principle of metamorphosis and illustrated it with a lot of her drawings. You'll find ideas on how Sibylla's idea make drawings of caterpillars and butterflies may have emerged in [Sibylla and the cocoons](#)

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