- by topic
- by NOS-feature
- by subject area
  - Biology
  - Chemistry
  - **Physics**
    - Guericke and vacuum
    - Lichtenberg and the electrophorus
    - Rumford and calorics
    - Joule and energy
    - Mouchot and the solar cooker
    - Joliot-Curie and artificial radioactivity
    - Democritus and the atoms
    - Dalton and the atoms
    - Maria Skłodowska-Curie: discoverer of two radioactive elements
    - Rutherford's Nuclear Atom

Physics

Listen

- 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
- In 1778, a strange line pattern in the grass leads Martin, Andreas and Michael to a talk of Georg Christoph Lichtenberg. He describes the geneation of these patterns in his laboratory in Goettingen and why these patterns form at all.
  Lichtenberg and the electrophorus
- What is the nature of heat – is it a substance or infinitesimal movement of matter? Among others, the Bavarian War Minister Benjamin Thompson, later known as Count Rumford, found an answer by analysing the drilling process for manufacturing cannons.
  Rumford and calorics
- 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 and energy
- 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
- 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
- Here, a fictive dispute between Democritus and Plato shall represent the counterpart images in the antiquities on the composition of matter. It is remarkable, that Democritus, whose idea on the subject would be far more acceptable after modern standards, could not outmatch his counterpart Plato. It was not until around 1800, when his model and the idea of smallest undividable pieces was rediscovered.
  Democritus and the Atoms
- Looking at the results of his chemical experiments, John Dalton notices that he has produced both, answers and (new) questions. He wonders, whether there is something like a superior principle...
  Dalton and the Atoms
- 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
- What would be a suitable model to describe the likeness of an atom? Rutherford's experimental findings were in contradiction to the theories represented by his PhD thesis advisor J.J.Thompson. Sitting over Christmas dinner 1911 he has an idea...
  Ernest's Nuclear Atom

Europa-Universität Flensburg
Auf dem Campus 1
24943 Flensburg
Germany

Phone: +49 461 805 02
Fax: +49 461 805 2144
Internet: www.uni-flensburg.de