



Science Film Festival Streaming Series

Joachim Hecker Science Experiments (10 Films)

Sundays at 2:00 PM [GMT+7]

Joachim Hecker has been a science editor and reporter in German broadcasting for over 20 years. He is the author of numerous bestselling children's books from which he takes experiments for the interactive science shows and readings that he performs nationally and internationally.

Length: 3-5 minutes

- **Joachim Hecker Science Experiments - Cooking Styrofoam [17.05.2020]**
Joachim Hecker performs an animal experiment. BUT do not worry, this is of course a very harmless experiment with frogs made of styrofoam. A frog ends up in the pressure cooker and the question is, what happens with the styrofoam and what does the frog look like after this cooking session?
- **Joachim Hecker Science Experiments - Filling A Balloon [24.05.2020]**
The microwave is a true assistant for this experiment! How does this kitchen utensil inflate a balloon and what can it do with a surprise egg? As always, Joachim Hecker is here to show us. Caution, hot!
- **Joachim Hecker Science Experiments - Mickey-Mouse Voice [31.05.2020]**
Did you know that you can do a great experiment with a special kind of gas? You can find it in balloons and it makes them float. Joachim Hecker shows you how it can change your voice into the voice of a world famous mouse.
- **Joachim Hecker Science Experiments - Oxyhydrogen Explosion [07.06.2020]**
Here is an explosive experiment. According to Joachim Hecker, vinegar is very dangerous. But how can that be? When mixed with a particular substance, it can cause an explosion. What does Joachim mix the vinegar with to make it pop?
- **Joachim Hecker Science Experiments - Paper Cooking Pot [14.06.2020]**
Perhaps you would like a cup of tea, but unfortunately have no pot to boil water? What to do? No problem! Joachim Hecker shows how easy it is to build a cooking pot made out of paper yourself.
- **Joachim Hecker Science Experiments - Shrinking Mugs [21.06.2020]**
What do we do with a plastic cup after we use it? Many will think, throw it away, of course. But not Joachim Hecker! He will show us that the cup is more valuable than you think. Plastics can remember. What can it remember? We will find that out with a hot air pistol.

- **Joachim Hecker Science Experiments - Sparklers Burn Underwater [28.06.2020]**
Sparklers put on a great mini-firework at parties. We are enchanted by their spewing sparks and they are quite easy to handle. Hold it, light it and keep it in the air. Naturally, Joachim Hecker has a burning question ready: What will happen underwater with the burning sparklers?
- **Joachim Hecker Science Experiments - Bimetal Made of Paper [05.07.2020]**
Paper itself is already a fascinating material, but combined with aluminum foil, it becomes something even more fascinating! That's because the result is so-called bimetal. This experiment shows how such bimetal reacts to heat.
- **Joachim Hecker Science Experiments - Bottle Divers [12.07.2020]**
A simple experiment, conducted with an ordinary water bottle and a glass tube. Joachim Hecker explains what's so fascinating about this classic experiment and how it works.
- **Joachim Hecker Science Experiments - Burning A Coin [19.07.2020]**
Joachim Hecker has brought a 2 Euro coin with him and wants to light it to see what happens to the metal. Will the coin burn?

I Got It! (7 Films)

Saturdays at 2:00 PM [GMT+7]

„I Got It!“ is an edutainment magazine co-production for children by broadcasters of nine Southeast Asian countries in cooperation with the Goethe-Institut. The series tackles questions children aged 8-12 have about the world ranging from environmental to social issues.

Length: 10 minutes

- **I GOT IT - Thailand - Dinosaur [23.05.2020]**
In this episode, we are going on a dinosaur fossil hunt with Namo, a 13 year-old boy from Thailand, who's biggest dream is to find bones of the Triceratops - a three horned dinosaur. Is he going to find what he is looking for?
- **I GOT IT - Brunei - Oil [30.05.2020]**
Where does oil come from? How do we get it out from the ground? But perhaps most importantly, what is it about oil that makes it so important for us to find alternative sources of energy. These are some of the questions this episode of "I Got It!" from Brunei tries to answer.
- **I GOT IT - Indonesia - Plastic Waste in the Ocean [06.06.2020]**
Can you tell how much plastic waste your household produces every month? In this episode, we follow Dodok, a nine year old boy from Bali in Indonesia, who's hobby is to collect plastic waste. Let's see what he is doing with all the waste he collects.
- **I GOT IT - Thailand - Paper [13.06.2020]**
What value does paper have for you? It's all around us. We are able to buy it anytime, anywhere. It's in books, newspapers, toilet paper and tissues. But we don't really think about where it comes from. That's why perhaps we should not throw it away so carelessly. Why is that exactly?
- **I GOT IT - Indonesia Young Programmer [20.06.2020]**
How do we talk to computers? Satiya from Bali in Indonesia is passionate about coding. Together with his friends, he shows us why it is such a fascinating subject and how it not only can be helpful to understand code, but that it can also be fun to learn!

- **I GOT IT - Myanmar - Lotus Textiles [27.06.2020]**

Did you know that you can produce clothes out of lotus flowers? In this episode, we will meet Hnaung Nge from Myanmar, who is planning to surprise her mother with fabric made out of lotus flowers. Let's see how she does it and what the surprise is.

- **I GOT IT - Philippines - Climate Change & Extreme Weather [04.07.2020]**

In this episode, we meet two typhoon Yolanda (Haiyan) victims, Dimple and Hadassa. The two girls share their experiences and observations from the typhoon and how they coped with the situation. The episode also explains how global warming and climate change can result in catastrophic effects and present ways on how we all can help in reducing greenhouse gas emissions.

MaxPlanckCinema Series (12 Films)

Saturdays at 2:30 PM [GMT+7]

In the MaxPlanckCinema series, current research topics from the Max Planck Society and fundamental scientific phenomena are presented in accessible manner. The topics are diverse and there are laboratory interviews so that the researchers behind the science are also visible.

Length: 6-10 minutes

- **MaxPlanckCinema - Laser [17.05.2020]**

Ferenc Krausz from the Max Planck Institute for Quantum Optics in Munich is considered the founder of attosecond physics. His goal is to develop new laser technologies to track the movement of electrons in atoms, molecules and solids in real time and thus directly observe quantum mechanical processes.

- **MaxPlanckCinema - Evolution [23.05.2020]**

Ralf Sommer uses threadworms to investigate how evolution works. It shows that proven processes are misused and combined with others. In this way, an organism can quickly produce new properties.

- **MaxPlanckCinema - Cell Organelles [30.05.2020]**

Genetics exist in the cells not only in the cell nucleus, but also in chloroplasts and mitochondria. Apparently genes from the two organelles can migrate into the cell nucleus. Ralph Bock at the Max Planck Institute for Molecular Plant Physiology in Potsdam examines how genes from chloroplasts can get into the cell nucleus and simulates evolution in the laboratory.

- **MaxPlanckCinema - Epigenetics [06.06.2020]**

Environmental influences can affect the methyl attachments on the histone proteins of the chromosomes. This changes the packaging level of the DNA - and this decides whether a certain gene can be read or not. In this way, the environment can shape the properties of an organism for generations. Thomas Jenuwein researches how the methyl groups are attached to the histones.

- **MaxPlanckCinema - STED Microscopy [13.06.2020]**

Researchers have been using microscopes to penetrate the micro and nano world for more than 400 years. Starting with the first light microscope, which was invented around 1600, through the fluorescence to the electron and STED microscope, the optical instruments reveal ever finer details of the living and inanimate world.

- **MaxPlanckCinema - Fuel Cells [20.06.2020]**
In redox reactions, electrons migrate from a donor to a recipient. In the fuel cell and in electrolysis, the donor and the acceptor are separated from one another, so oxidation and reduction take place at different locations. This creates the possibility of using the electron flow as a current or driving the reaction with an external voltage.
- **MaxPlanckCinema - Brain Computer Interface [27.06.2020]**
Scientists can read a person's brain activity using EEG signals. But which signals belong to which thinking processes? Bernhard Schölkopf and his team want to decode this enigma and develop powerful brain-computer interfaces. Even completely paralyzed patients should be able to communicate with the environment again.
- **MaxPlanckCinema - Biomaterials [04.07.2020]**
Biomaterials such as wood, bone or cobwebs are always made up of the same handful of different elements - and yet they show an incredible variety of shapes and functionalities. This is made possible by a trick of nature: these materials are not homogeneous, but hierarchical.
- **MaxPlanckCinema - Carbon Cycle [11.07.2020]**
Humankind emits huge amounts of carbon dioxide, thus unbalancing the global carbon cycle. This has an impact on the Earth's climate - but also on the oceans and vegetation.
- **MaxPlanckCinema - Catalysts [18.07.2020]**
Hardly any process in the chemical industry runs without catalysts. They accelerate chemical reactions and thus help to save energy and avoid unwanted by-products. However, many reactions are only practically possible with catalysts.
- **MaxPlanckCinema - Immune System [25.07.2020]**
Like all vertebrates, humans have an adaptive immune system that can adapt to new pathogens. The immune system's T cells constantly check whether body cells are infected with a pathogen. They are prepared for this task in the thymus.
- **MaxPlanckCinema - Optogenetics [26.07.2020]**
Rhodopsins, a combination of protein and dye, can convert light into cellular signals - for example in the optic spot of green algae or in the human eye. Optogenetics uses this effect to activate nerve or muscle cells with light.

Lindau Nobel Laureate Meetings – Mini-Lectures (22 Films)

Saturdays at 3:00 PM and Sundays at 3:00 PM [GMT+7]

The format of the Mini Lectures was created with the intention disseminating the topics of the annual conferences in Lindau in an accessible way. The Mini Lectures present scientific and economic, as well as general political topics, including Nobel Prize-winning discoveries, clearly and understandably.

Length: 8-10 minutes

- **Nobel Mini-Lectures – Cosmology [17.05.2020]**
Starting from the Big Bang Theory to the concept of the accelerating expansion of the universe, this Mini Lecture explores the evolutionary origin and development of the universe. Historical as well as up-to-date lecture snippets of the physicists Brian Schmidt, George Smoot and John Mather, all held in Lindau, illustrate the concepts used to analyze the universe.

- **Nobel Mini-Lectures - Subatomic Particles [23.05.2020]**
This Mini Lecture explores the smallest building blocks of matter. It introduces to Muray Gell-Man's quark model, the Higgs mechanism named after British physicist Peter Higgs as well as the experiments done at the research center CERN.
- **Nobel Mini-Lectures - Environmental Protection [24.05.2020]**
Environmental protection is a prerequisite for survival on this planet. This Mini Lecture explores questions of sustainability, environment, energy supply and peace. Lecture snippets of Nobel Laureates Willy Brandt, Frank Sherwood Rowland und Paul Crutzen are presented, who address these issues in their research.
- **Nobel Mini-Lectures - How to Become a Nobel Laureate [30.05.2020]**
Advises of Nobel Laureates Harry KROTO, Werner Heisenberg, Albert Szent-Györgyi and Peter Agre to successfully master the traps of a Nobel Laureate's scientific career.
- **Nobel Mini-Lectures - Proteins [31.05.2020]**
Proteins are an essential ingredient of each and every cell and constitute most of its dry mass. This Mini Lecture explores the chemical structures of the macromolecules and introduces to the specific, three-dimensional constitution of the amino-acid-chain, the buildup and degradation of proteins with lecture snippets of Nobel Laureates Christian Anfinsen and Johann Deisenhofer.
- **Nobel Mini-Lectures - X-ray Crystallography [06.06.2020]**
This Mini Lecture explains the method of X-ray crystallography for elucidating the structure of molecules. It enables scientists to decipher the structure of important and complex biochemical molecules and helps them to understand their function. Starting from the x-ray diffraction by crystal lattices, first described by the physicist Max von Laue, to the decoding of the most complex molecular structures, this Mini Lecture illuminates the history of the X-ray analysis.
- **Nobel Mini-Lectures - Alfred Nobel [07.06.2020]**
Who was this man who revolutionized armament technology, yet had an ambivalent relationship to war? This video gives insight into the life of this fascinating personality.
- **Nobel Mini-Lectures - Cancer [13.06.2020]**
Statistically, every third person will eventually develop cancer - time to learn more about the disease!
- **Nobel Mini-Lectures - Carbon [14.06.2020]**
Every form of life that we know of requires carbon. This Mini Lecture introduces to the chemically most versatile element, essential to all life, both as an energy source and as building stock. Lecture snippets of the chemists Robert Curl und Karl Ziegler explain the structure of the symmetric C60 molecule as well as the Ziegler-Natta process used to make polymers.
- **Nobel Mini-Lectures - Drug Targets [20.06.2020]**
Drug research has contributed more to the progress of medicine during the past century than any other scientific factor. With lecture snippets of Gerhard Domagk, Gertrude Elion and Brian Kobilka this Mini Lectures introduces to the fundamental research methods of drug targeting.
- **Nobel Mini-Lectures - Future [21.06.2020]**
What will the future bring? Since the dawn of history this question has exerted an incredible fascination. Laureates of various disciplines discuss the basic challenges of a concerted energy policy.

- **Nobel Mini-Lectures - Lindau Nobel Laureate Meetings [27.06.2020]**
For more than 60 years, the Lindau Nobel Laureate Meetings have brought together the world's most famous scientists. In this animated Mini Lecture we take a look at the history and evolution of the Lindau Meetings.
- **Nobel Mini-Lectures - Molecules [28.06.2020]**
Small molecules serve as nutrients and thus provide both energy and building blocks required for the body's maintenance, growth and development. This Mini Lecture explores the Nobel Prize awarded discoveries and the structural characterization of small molecules such as vitamins, hormones and neurotransmitters.
- **Nobel Mini-Lectures - Science Ethics and Society [04.07.2020]**
This Mini Lecture deals with question of the socio-political responsibility of science with lecture snippets of Nobel Laureates Roald Hoffmann, Dickinson Richards, Werner Forssmann, and Christian de Duve.
- **Nobel Mini-Lectures - Game Theory [05.07.2020]**
Whether in politics, sports or medicine, modelling problems as a strategic game helps in effective decision-making.
- **Nobel Mini-Lectures - Photosynthesis [11.07.2020]**
No other chemical process is as crucial for the existence of life as photosynthesis. Photosynthesis is the process of converting light energy to chemical energy. This Mini Lecture deals with the basic processes taking place in the chloroplasts of plants with lecture snippets of John Walker, Hartmut Michel, and Steven Chu.
- **Nobel Mini-Lectures - Quantum Mechanics Part I [12.07.2020]**
Starting with Erwin Schrödinger's cat paradox the two-part Mini lecture "Quantum Mechanics" introduces to the central, quantum mechanical principles for the analysis of microscopic elementary particles: Max Planck's black body radiation theory, Einstein's photoelectric effect, Bohr's atomic model and the Heisenberg's matrix mechanics and uncertainty principle. The first part of the Mini Lecture "Quantum Mechanics" introduces to the beginnings of quantum mechanics: Beginning with Max Planck's law of black body radiation to Einstein's photoelectric effect.
- **Nobel Mini-Lectures - Quantum Mechanics Part II [18.07.2020]**
Part two of the Mini Lecture "Quantum Mechanics" discusses Bohr's atomic model and the Heisenberg Uncertainty Principle and highlights the validity of both theorems for present-day quantum physics research.
- **Nobel Mini-Lectures - Werner Heisenberg [19.07.2020]**
For him, the smallest particles were the greatest - Werner Heisenberg, one of the founders of quantum mechanics. But who was this man - a genius and controversial figure - who decisively influenced the course of physics in the 20th century? This Mini Lecture provides a detailed view on the life and work of this eminent physicist.
- **Nobel Mini-Lectures - Global Warming [25.07.2020]**
Global Global warming is primarily a problem of too much carbon dioxide (CO₂) in the atmosphere which acts as a blanket, trapping the heat and warming the planet.

- **Nobel Mini-Lectures - Gravitational Waves [26.07.2020]**

Gravitational waves are small distortions, or ripples, in the fabric of spacetime. They have been discovered for the first time after scientists managed to observe the warping of spacetime caused by the collision of two black holes over a billion years ago.

- **Nobel Mini-Lectures - Neutrinos [26.07.2020]**

Neutrinos are electrically neutral and the mass of the neutrino is tiny. As they travel through the universe they interact extremely rarely with other particles.

Myanmar E-Channel Media Resources (9 Films)

Sundays at 2:30 PM GMT+7

Together with education television experts from Germany, Malaysia and the Philippines, a series of local films were produced with the Myanmar Education Channel, which was facilitated by the Goethe-Institut and the GIZ. The newly established Education Channel started broadcasting on April 30, 2020.

Length: 5-10 minutes

- **Word of Work - Drone Construction [24.05.2020]**

The film explains what is inside a drone, how it is assembled, which are the most important components of drones, how we fly a drone and how drones can help people, especially in agriculture.

- **Happy Science - Elephant Foam [31.05.2020]**

How can a simple mixture of different substances cause a reaction that produces gigantic foam structures and a lot of dirt?

- **Word of Work - Electric Welding [07.06.2020]**

The process of welding metal is covered in this film. It explains how heat is used and introduces different types of electrowelding in different industries, as well as the risks of the job and safety precautions.

- **Happy Science - One Color to Several Colors [14.06.2020]**

Why do sliced apples change color, what is PH and how different objects with different PH produce different colors?

- **Word of Work - Mechanized Agriculture [21.06.2020]**

How can technology help Myanmar produce more rice to meet its high demands? Comparison of traditional methods of rice production with modern methods are presented, as well as how modern technologies help farmers reduce their workload and labor and produce more.

- **Happy Science - Reaction of the Blue Bottle [28.06.2020]**

Why does a solution mixed with methylene blue turn blue when shaken, but colorless when placed on the table?

- **Word of Work - Plant Tissue Culture [05.07.2020]**

The film is a step-by-step introduction to tissue culture of plants, starting from tissue extraction to comparing plants that are 1 week to 1 month old, etc. It also shows how this technology can be used and helpful in other areas.

- **Happy Science - Secret Writing [12.07.2020]**
How can you write a secret letter in which the words are invisible? Find out in today's episode!
- **Word of Work - Weather Forecast [19.07.2020]**
The film made by alumni of the Yangon Film School introduces the Meteorology Department in Myanmar and provides insight on how they predict the weather in preparation for the weather forecast on TV.

House of Little Scientists (4 Films)

Saturdays at 2:00 PM GMT+7

The House of Little Scientists series from Thailand is an educational program for pre-school children, which emphasizes learning through wonder, observation and experiments. Children at home get to learn new things about the science that surrounds them together with the children on screen.

Length: 10-15 minutes

- **House of Little Scientists - Biting Plants [11.07.2020]**
Today's episode is all about carnivorous plants. We learn about the nature of these plants and how they eat animals. The film's animation sections add fun and informative sequences.
- **House of Little Scientists - Natural Fibers [18.07.2020]**
In this episode young viewers will learn all about natural fibers: they will discover that some of their clothes are made from the cotton. This unique flower is processed into threads, which will later be woven into various patterns of clothes with a special weaving machine.
- **House of Little Scientists - Water Permeability [25.07.2020]**
The flow rate of water is at the center of this episode. The young researchers are observing that water can flow better through stones than through sand – and during their own experiments they find out why.
- **House of Little Scientists - Lotus Leaf [26.07.2020]**
In the episode, we learn about the special features of a lotus leaf, for example, that water drops roll off the leaves and move around like tiny marbles. The young researchers compare the characteristics of lotus leaves with those of other surfaces – and discover amazing differences.

Date / Time	14:00 (GMT+7)	14:30 (GMT+7)	15:00 (GMT+7)
Sunday, 17.05.2020	Joachim Hecker Science Experiments	MaxPlanckCinema	Nobel Laureates Mini-Lectures
Saturday, 23.05.2020	I Got It!	MaxPlanckCinema	Nobel Laureates Mini-Lectures
Sunday, 24.05.2020	Joachim Hecker Science Experiments	Myanmar E-Channel	Nobel Laureates Mini-Lectures
Saturday, 30.05.2020	I Got It!	MaxPlanckCinema	Nobel Laureates Mini-Lectures
Sunday, 31.05.2020	Joachim Hecker Science Experiments	Myanmar E-Channel	Nobel Laureates Mini-Lectures
Saturday, 06.06.2020	I Got It!	MaxPlanckCinema	Nobel Laureates Mini-Lectures
Sunday, 07.06.2020	Joachim Hecker Science Experiments	Myanmar E-Channel	Nobel Laureates Mini-Lectures
Saturday, 13.06.2020	I Got It!	MaxPlanckCinema	Nobel Laureates Mini-Lectures
Sunday, 14.06.2020	Joachim Hecker Science Experiments	Myanmar E-Channel	Nobel Laureates Mini-Lectures
Saturday, 20.06.2020	I Got It!	MaxPlanckCinema	Nobel Laureates Mini-Lectures
Sunday, 21.06.2020	Joachim Hecker Science Experiments	Myanmar E-Channel	Nobel Laureates Mini-Lectures
Saturday, 27.06.2020	I Got It!	MaxPlanckCinema	Nobel Laureates Mini-Lectures
Sunday, 28.06.2020	Joachim Hecker Science Experiments	Myanmar E-Channel	Nobel Laureates Mini-Lectures
Saturday, 04.07.2020	I Got It!	MaxPlanckCinema	Nobel Laureates Mini-Lectures
Sunday, 05.07.2020	Joachim Hecker Science Experiments	Myanmar E-Channel	Nobel Laureates Mini-Lectures
Saturday, 11.07.2020	House of Little Scientists	MaxPlanckCinema	Nobel Laureates Mini-Lectures
Sunday, 12.07.2020	Joachim Hecker Science Experiments	Myanmar E-Channel	Nobel Laureates Mini-Lectures
Saturday, 18.07.2020	House of Little Scientists	MaxPlanckCinema	Nobel Laureates Mini-Lectures
Sunday, 19.07.2020	Joachim Hecker Science Experiments	Myanmar E-Channel	Nobel Laureates Mini-Lectures
Saturday, 25.07.2020	House of Little Scientists	MaxPlanckCinema	Nobel Laureates Mini-Lectures
Sunday, 26.07.2020	House of Little Scientists	MaxPlanckCinema	Nobel Laureates Mini-Lectures