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Republic of the Philippines
Department of Education

DepEd MEMORANDUM
No. **181**, s. 2016

28 OCT 2016

7TH SCIENCE FILM FESTIVAL

To: Regional Directors
Schools Division Superintendents
Public and Private Elementary and Secondary Schools Heads
All Others Concerned

1. In support of the Memorandum of Agreement (MOA) between Goethe Institut-Philippinen and the Department of Education (DepEd), the **7th Science Film Festival** with the theme *Materials Science* will be conducted from November 8 to December 16, 2016.
2. The Festival aims to promote to the participants science literacy and enhance awareness of contemporary scientific, technological and environmental issues through the medium of film and television content.
3. The mechanics of the Festival screening are contained in Enclosure No. 1. The synopses of the films are provided in Enclosure No. 2.
4. The learners from both public and private secondary schools, particularly those from the Regional Science High Schools (RSHSs), Science, Technology and Engineering (STE)—implementing schools and Special Science Elementary Schools (SSES), are invited to watch the films.
5. The Regional Science Education Program Supervisor shall coordinate the conduct of the **7th Science Film Festival** and shall retrieve the Visitor Count per school. DepEd Regional Office (RO) shall submit a softcopy in Excel format of the Visitor Count Summary Form (VCSF), through email at joseph.gutierrez@deped.gov.ph on or before **December 17, 2016**. The DepEd RO shall also collect the hard copy of the VCSF, including all the films, and submit the same to **Director Jocelyn Andaya**, Bureau of Curriculum Development, 3rd Floor Bonifacio Building, DepEd Central Office, DepEd Complex, Meralco Avenue, Pasig City on or before **January 1, 2017**. The list of participating schools is found in Enclosure No. 3.
6. The opening of the Festival will be on **November 8, 2016** at the Imax Theater, SM Megamall, EDSA corner J. Vargas Avenue, Mandaluyong City with the screening of *A Beautiful Planet*. Participants to the opening of the Festival are selected schools in the Divisions of Mandaluyong and Pasig City listed in Enclosure No. 4.
7. Participation of schools shall be subject to the no-disruption-of classes policy stipulated in DepEd Order No. 9, s. 2005 entitled *Instituting Measures to Increase Engaged Time-on-Task and Ensuring Compliance Therewith*. The activity is also subject to *no-collection policy* as stated in Section 3 of Republic Act No. 5546, *An Act Prohibiting the Sale of Tickets and/or the Collection of Contributions for Whatever Projects or Purpose from Students and Teachers of Public and Private Schools, Colleges and Universities*.

8. Expenses relative to the transportation of students shall be charged to the Maintenance and Other Operating Expenses (MOOE) of the school, subject to the usual accounting and auditing rules and regulations.

9. Operational costs, including communications, shall be charged to the 2016 Bureau of Curriculum Development Funds. Other expenses relative to the conduct of the Festival in participating schools shall be charged to the 2016 Program Support Funds, pursuant to DepEd Order No. 13, s. 2016 entitled *Implementing Guidelines on the Direct Release and Use of Maintenance and Other Operating Expenses (MOOE) Allocations of Schools, Including Other Funds Managed by Schools*, subject to the usual accounting and auditing rules and regulations.

10. For more information, all concerned may contact **Ms. Grace T. Panganiban** of the Goethe Institut-Philippinen at telephone nos. (02) 840-5723 to 24.

11. Immediate dissemination of this Memorandum is desired.


LEONOR MAGTOLIS BRIONES
Secretary

Encls.:

As stated

References:

DepEd Order (No. 13, s. 2016)
DepEd Memorandum No. 115, s. 2015

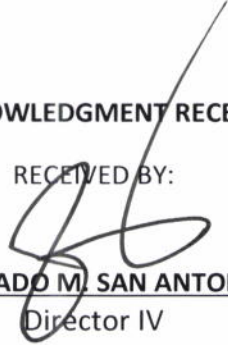
To be indicated in the Perpetual Index
under the following subjects:

CONFERENCES
FILM SHOWING
LEARNERS
SCIENCE EDUCATION
TEACHERS

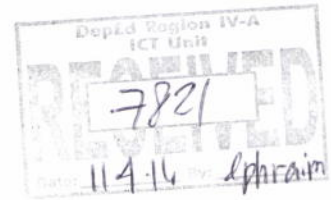
7th Science Film Festival

ACKNOWLEDGMENT RECEIPT

RECEIVED BY:



DIOSDADO M. SAN ANTONIO
Director IV



Schools Division Superintendent
Division of: _____

District Supervisor
District of: _____

RECEIVED AND DISSEMINATED BY:

School Principal

Name of School

District: _____

Division of: _____

ICT Unit

MECHANICS FOR THE SCIENCE FILM FESTIVAL SCREENING

1. Preparation:

- a. Room equipped with screen and video player (DVD player or PC/laptop)
- b. Science Films (in DVD format)
- c. Teacher or Guide to facilitate the viewing and activities (It is highly recommended that teachers/guides watch the films in advance and prepare guide questions that may help stimulate students' interest and understanding of the film.)

The copies of the films will be forwarded to the Regional Offices (RO). The RO will then forward the films to the Division Offices (DO). The DO will forward the films to specific schools in the list.

2. Reception and Work Instruction:

The teacher or guide introduces the Science Film Festival and briefly explains the film/s to be screened. The synopses can be used for this purpose.

3. Screening of the Film

Let the viewers watch the film completely and without interruption.

4. Processing (Pre- or Post-Screening)

This is to reinforce the information from the film and to strengthen students' understanding of concepts espoused by the film. The guide questions prepared before the screening will help with the processing of students' understanding.

5. Teacher/Guide shall prepare the Visitor Count Form and submit the same to the Regional Science Education Program Supervisor. The form is in Enclosure No. 5.

6. The DepEd Regional Office shall collate the Visitor Count Form and prepare the summary following the format as shown in Enclosure No. 6.



LOCAL SHORTLIST AND SYNOPSIS

SUSTAINABLE DEVELOPMENT & ENVIRONMENT

Title: Amur – Asia's Amazon
Original Title: Amur – Asiens Amazonas
Format: Standalone Documentary
Category: Ecology & Environment
Directors: Franz Hafner (Ep.01 + Ep.03) & Klaus Feichtenberger (Ep.02)
Produced by: A co-production of Terra Mater Factual Studios, Interspot Film and NDR Naturfilm Doclights in cooperation with ARTE France
Running Time: 50 Minutes
Country: Austria
Year: 2015
Age Guideline: Young Adults (17+)

Although the Amur comprises one of the longest river systems in the world, it is not very well known. This water landscape is made up of thousands of rivers, swamps and lakes which cover an area four times the size of Germany, stretching over parts of Mongolia, Russia and China. The river delta, at the Tatar Strait between the Seas of Japan and Okhotsk, is the starting point of an unusual voyage of discovery, which travels 5000 kilometres upstream from the Pacific to the Mongolian Steppes.

Title: Checker Tobi – The Gold-Check
Original Title: Checker Tobi – Der Gold-Check
Format: Edutainment
Category: Family Edutainment
Directors: Martin Tischner & Johannes Honsell
Produced by: megaherz gmbh film und fernsehen
Running Time: 25 Minutes
Country: Germany
Year: 2014
Age Guideline: Primary School (9-11)

Tobi is eager to know why people are so fascinated with gold and wants to make himself a golden crown. His search for gold brings him to the Rammelsberg mine in Goslar, 200 metres underground. For centuries miners searched here for all sorts of metals. Tobi seeks the expert help of geologist Veit, who helps him build gold traps in a river. For years, Veit followed the Gold Rush to countries such as Australia, Russia and North America. Nonetheless, not all that glitters is gold!

Title: Checker Tobi – The Paper-Check
Original Title: Checker Tobi – Der Papier-Check
Format: Edutainment
Category: Family Edutainment
Directors: Martin Tischner & Johannes Honsell
Produced by: megaherz gmbh film und fernsehen
Running Time: 25 Minutes
Country: Germany
Year: 2015
Age Guideline: Primary School (9-11)

Tobi wants to go to sea – in a paper boat. In order to do so, he consults paper sculptor Frank who works as a lifeguard in Uffing. First of all, the construction material needs to be studied. In the paper factory in Gmund, Tobi learns how paper is produced. Having created some fine quality paper, he then sets out to investigate the ancient Egyptians – the inventors of papyrus. During a visit to a recycling plant, he learns how machines are used to reprocess waste paper. At present, 20 million tons of paper are recycled annually in Germany.

Research in Düsseldorf, is searching for scientific answers to these questions. As part of an international team, he is doing research work on a polymer coating designed to release rust-inhibiting substances capable of independently "healing" scratches in metal.

Title: K for Knowledge – Sugar in Numbers
Original Title: W wie Wissen – Zucker in Zahlen
Format: Science Magazine
Category: Natural Science, Life Science & Technology
Director: Fabian Wolf
Produced by: Bilderfest GmbH on behalf of WDR
Running Time: 6 Minutes
Country: Germany
Year: 2015
Age Guideline: Secondary School (12-16)

According to the American Ministry of Agriculture, every year 175 million tons of sugar are produced worldwide. If this quantity of sugar were to be formed into cubes, it could be used to reconstruct the 830-metre-tall facade of the Burj Khalifa, the highest building in the world - not just once, but 255 times!! On average, each one of us consumes almost 24 teaspoons of sugar a day. Much more than is good for us, according to the WHO. Is there a way of reducing our sugar intake?

Title: Magnetism to the Power of Four
Original Title: Magnetismus hoch 4
Format: Animation or Short Film
Category: [REDACTED]
Directors: Daniel Laumann & Matthias Ries
Produced by: Institut für Didaktik der Physik
Westfälische Wilhelms-Universität Münster
Running Time: 6 Minutes
Country: Germany
Year: 2016
Age Guideline: Young Adults (17+)

The teaser „Magnetism to the power of 4“ is a thought experiment which reveals to us the magnetic phenomena of our world. Things which, although ever-present, almost always remain quite hidden. What would happen if a crazy scientist succeeded in amplifying the magnetic field in the centre of our Earth? One surprising result reveals that, in an extremely strong magnetic field, water, wood and even humans would reveal their magnetic properties and begin to float.

Title: The Origami-Code – Scientists Uncover the Power of Folding
Original Title: Der Origami-Code – Forscher entdecken das Falten
Format: Standalone Documentary
Category: Natural Science, Life Science & Technology
Director: Francois-Xavier Vives
Produced by: fact+film, Leonardo Film, La Compagnie des Taxi Brousse, ZDF/3Sat, France Télévisions, nordmedia Bremen and Niedersachsen, MEDIA, CNC & Procirep
Running Time: 43 Minutes
Country: France
Year: 2015
Age Guideline: Secondary School (12-16)

Much of what develops in nature has folds: flower buds, wings, the brain, genes... In the last 20 years, science has discovered the principles of Origami. The art of folding has entered into innovative areas of research and could now lead the way to the final stage in bionics. Researchers in the fields of robotics, medicine, biology and nanotechnology hope to be able to solve highly complex mathematical problems through the study of this natural phenomenon or to derive other practical technical benefits from it.

EUROPE

Title: Baobabs - Between Land and Sea
Original Title: Baobabs entre Terre et Mer
Format: Standalone Documentary
Category: Natural Science, Life Science & Technology
Director: Cyrille Cornu
Produced by: Cyrille Cornu (Lokobe Production)
Running Time: 55 Minutes
Country: France / Madagascar
Year: 2015
Age Guideline: Secondary School (12 - 16)

Title: CheckerTobi – The Rubber-Check
Original Title: CheckerTobi – Der Gummi-Check
Format: Edutainment
Category: Family Edutainment
Directors: Martin Tischner & Johannes Honsell
Produced by: megaherz gmbh film und fernsehen
Running Time: 25 Minutes
Country: Germany
Year: 2014
Age Guideline: Primary School (9-11)

Rubber is a very versatile material. It can be used to make a variety of products ranging from boats, seals, mattresses and erasers to hair bands. It is soft and flexible but strong.

On a visit to a racing circuit, Tobi finds out why tyres are made of rubber and the tough conditions they need to endure. At the Botanical Gardens in Munich, he learns where the raw material rubber comes from and how it is processed. Finally Tobi witnesses a stretch test in the form of a Bungee jump, in which the elastic cord has to withstand the impact of a jump from a height of 75 metres.

Title: CheckerTobi – The Plastic Check
Original Title: CheckerTobi – Der Plastik-Check
Format: Edutainment
Category: Family Edutainment
Directors: Martin Tischner & Johannes Honsell
Produced by: megaherz gmbh film und fernsehen
Running Time: 25 Minutes
Country: Germany
Year: 2014
Age Guideline: Primary School (9-11)

Plastic and synthetic materials can be found everywhere: in packaging, electronics, cars, shoes and toothbrushes. It is a very practical material but it takes centuries to decompose and the enormous consumption of plastic has become a problem for plants, animals and humans alike. Tobi visits an oil drilling station where the raw material for plastic is produced. He takes his oil sample from the station to the laboratory, where he makes it into plastic. Later, Tobi investigates how much plastic is to be found in the average household. The results are frightening.

Title: CheckerTobi – The Sand-Check
Original Title: CheckerTobi – Der Sand-Check
Format: Edutainment
Category: Family Edutainment
Directors: Johannes Honsell
Produced by: megaherz film und fernsehen on behalf of Bayerischer Rundfunk
Running Time: 24 Minutes
Country: Germany
Year: 2014
Age Guideline: Primary School (9-11)

Sand is everywhere, not only on the beach! It forms part of our houses and motorways. It is important for the production of glass and appliances such as mobile phones and computers. Every year 15 billion tons of sand are used in the production industry. This makes Tobi eager to find out more about this raw material. A geologist explains to him what sand is, how it arrives on the beaches and why there is red, white and black sand. Tobi seeks help to build a 110-metre-high sandcastle and in order to test its strength, he wants to slide down it on a board.

Title: Corrosion – Rust Belongs on the Scrap Heap
Original Title: Korrosion – Rost gehört zum alten Eisen
Format: Science Magazine
Category: Natural Science, Life Science & Technology
Director: Jo Siegler

Produced by: Max Planck Society & Massih Media
Running Time: 9 Minutes
Country: Germany
Year: 2014
Age Guideline: Young Adults (17+)

Every year, corrosion eats up approximately 3 per cent of all economic output. In Germany alone that amounts to almost 70 billion euro. But what is rust and how can we combat it more effectively? Martin Stratmann, director at the Max-Planck-Institute for Iron

Their sheer size and distinctive form make Baobab trees one of the most amazing tree species on Earth but deforestation poses an existential threat to these giants. To find out more about them, Cyrille Comu and Wilfried Ramahafaly travel to the heart of the forest and explore 400 kilometres of south-west Madagascar's wild and isolated coastline. This film documents the discoveries, encounters as well as the scientific results of their research. Some of the landscapes have seldom before been captured on film or photograph.

Title: Computer Says Show
Format: Documentary Series
Category: Natural Science, Life Science & Technology
Director: Dr. Catherine Gale
Produced by: Archie Baron
Running Time: 45 Minutes
Country: United Kingdom
Year: 2016
Age Guideline: Secondary School (12-16)

Scientists get together with musical composers for the very first experiment of its kind anywhere in the world. Their aim? To discover the recipe for success in the musical genre. Can the perfect musical be composed by a computer? The second episode illustrates how the idea is put into practice. Team and actors rehearse their new musical "Beyond the Fence". The gala performance reveals whether or not the computer-generated musical is able to meet the expectations of London's West End audience.

Title: Einstein 100
Format: Animation or Short Film
Category: [REDACTED]
Directors: Jamie Lochhead, Eoin Duffy & Anais Rassat
Produced by: Windfall Films for the Science and Technology Facilities Council
Running Time: 3 Minutes
Country: United Kingdom
Year: 2015
Age Guideline: Secondary School (12-16)

With the publication of his Theory of General Relativity in 1915, Albert Einstein revolutionized our understanding of gravity by explaining it as a curvature in the space-time continuum. To this day, physicists all over the world are still inspired by his theory and, although it is highly complex, the basic idea can actually be explained in simple terms. The short film "Einstein 100" does this in a clear, entertaining way.

Title: End of Memory
Original Title: Nos Ordinateurs Ont-Ils la Mémoire Courte?
Format: Standalone Documentary
Category: Natural Science, Life Science & Technology
Director: Vincent Amouroux
Produced by: ZED & ARTE France
Running Time: 52 Minutes
Country: France
Year: 2014
Age Guideline: Young Adults (17+)

Every day 2,5 trillion bytes of data are exchanged. This rapidly growing quantity of digital information is known as „Big Data“ and it is presenting mankind with new challenges. How can this quantity of data be classified and stored? Scientists are trying to develop new platforms to make up for the short lifespan of our current storage formats and secure data for future generations. "The End of Memory" asks whether digital societies are capable of developing a lasting storage system.

Title: Epigenetics – Game of Genes
Original Title: Epigénétique – Du Jeu dans les Gènes
Format: Documentary Series
Category: Natural Science, Life Science & Technology
Director: Noak Carrau
Produced by: Yoann Dhenin (l'Heure Bleue Productions)
Running Time: 6 x 6 Minutes
Country: France
Year: 2015
Age Guideline: Young Adults (17+)

Six different stories tell us why genes alone cannot predict our fate. With the help of epigenetics, scientists explain how DNA profiles change in the course of a lifetime. Environmental factors, diet and stress all influence human cell factories decisively. Heart and brain rejuvenation experiments, organ reconstruction and delaying of the ageing process no longer belong to the world of science fiction - they are already being tested in modern molecular biology.

Title: Full Proof – Domes
Format: Edutainment
Category: Family Edutainment
Director: Uif Putters
Produced by: NTR
Running Time: 12 Minutes
Country: The Netherlands
Year: 2015
Age Guideline: Primary School (9-11)

Full Proof" is a series of episodes presented by children from different countries. In this particular episode, eleven-year-old Aung, a postcard seller in a Myanmar temple town, asks himself how the temple domes were built and why they don't fall down. He learns how to make a bridge from noodles and how to walk on eggshells. He also finds out what triangles have to do with architecture. Finally Aung takes on the task of building a dome big enough to crown his own souvenir shop.

Title: Gone with the Time
Original Title: Autant en Emporte le Temps
Format: Animation or Short Film
Category: Family Edutainment
Director: Mathieu Rolin
Produced by: Le valsseau, le PAIR, amopix, CNC & Bourse Estim
Running Time: 15 Minutes
Country: France
Year: 2015
Age Guideline: Secondary School (12-16)

„Gone with the Time" tells the amusing story of two archaeologists who are sent to an excavation site to do some research. They are accompanied by Agnes und Gilles, who are in charge of the area and also by a rather mischievous narrator, who tells the story in an amusing but informative way. The work of the archaeologists pays off when they discover the remains of a 2,500- year-old Gallic village.

Title: Star Stuff
Format: Animation or Short Film
Category: 
Director: Ratimir Rakuljic
Produced by: Monika Drahotuski, Ratimir Rakuljic & Andrej Smoljan
Running Time: 10 Minutes
Country: Croatia
Year: 2015
Age Guideline: Secondary School (12-16)

What are stars? Nine-year-old Carl sets out on a journey to find an answer to this apparently simple question. But every answer brings new questions and the boy soon becomes a great scientist. "Star Stuff" was inspired by the life and work of Carl Sagan, one of the most famous scientists and science teachers of the 20th century.

ASIA

Title: Hawkeye: Filipino Ingenuity
Original Title: Matanglawin: Galing ng Pinoy
Format: Edutainment
Category: Natural Science, Life Science & Technology
Director: Maritoni Esperida (Executive Producer)
Produced by: ABS-CBN
Running Time: 19 Minutes
Country: The Philippines
Year: 2016
Age Guideline: Secondary School (12 - 16)

The inventions of the children of the prize-winning Philippine-Robotics-Team have the potential to save both lives and the Earth. This episode of the programme on science and environment is all about new ideas of brilliant minds of all age groups. Viewers can marvel at robots which can make new paper and pencils from recycled paper or transform food left-overs into electricity.

Title: House of Little Scientists: Cola
Format: Edutainment
Category: Family Edutainment
Director: Pichsinee Sirichotchumnam
Produced by: Maha Chakri Sirindhorn Foundation, National Science Museum
Thailand and Thai PBS
Running Time: 10 Minutes
Country: Thailand
Year: 2015
Age Guideline: Early Learners (5 - 8)

The House of Little Scientists aims to engage pre-school children with science in a playful way. This is done via observation, examination and easy-to-understand experiments. For example, the contents of cola are investigated by letting the young researchers carry out small experiments where they discover the role carbonic acid plays in the sweet beverage.

Title: House of Little Scientists: Shapes
Format: Edutainment
Category: Family Edutainment
Director: Pichsinee Sirichotchumnam
Produced by: Maha Chakri Sirindhorn Foundation, National Science Museum
Thailand and Thai PBS
Running Time: 10 Minutes
Country: Thailand
Year: 2015
Age Guideline: Early Learners (5 - 8)

On closer inspection, we realize that all objects surrounding us have shapes - and that these shapes, in turn, can be found within other objects too. Whether triangle or rectangle, everything in this episode revolves around the subject of shapes. In "The House of the Little Scientists", which was especially designed for young researchers, children of pre-school age learn about shapes in a playful way.

Title: Leaps in Evolution – Episode 1: The Origin of Eyes
Format: Standalone Documentary
Category: Natural Science, Life Science & Technology
Director: Kazuki Ueda
Produced by: NHK (Japan Broadcasting Corporation)
Running Time: 59 Minutes
Country: Japan
Year: 2015
Age Guideline: Secondary School (12 - 16)

The study of fossils has revealed that eyes developed in living organisms approximately 500 million years ago: this is a milestone in evolutionary biology. Modern DNA research offers a possible answer as to why eyes came into being at all. Light sensitivity genes were transferred from plant to animal life. The genes developed in plants over millions of years, permitting them to perceive light efficiently and carry out photosynthesis. When animals received these genes, they began to discover the world of light.

Title: Medicine – East and West
Format: Documentary Series
Category: Natural Science, Life Science & Technology
Director: Si Joon Kim
Produced by: Deok Dam Chu
Running Time: 52 Minutes
Country: Korea
Year: 2015
Age Guideline: Young Adults (17+)

For thousands of years, medicine has protected man from illnesses and injuries. The search for healing remedies is a tradition in all parts of the world. The Korean EBS Docu-prime "Medicine - East and West" examines the history of the development and the conflicts between eastern and western medicine. It does so from a humanistic perspective and gives the viewers a unique insight into both the past and the future of eastern and western medicine.

REST OF THE WORLD

Title: Annedroids: Episode 103 - Reduce, Reuse, Robocycle
Format: Edutainment
Category: Family Edutainment
Director: J.J. Johnson
Produced by: Sinking Ship Entertainment
Running Time: 23 Minutes
Country: Canada
Year: 2014
Age Guideline: Secondary School (12 - 16)

The ingenious scientist Anne, her two friends, Nick und Shania and her android inventions Hand, Eyes and Pal have a task at hand. Because Nick would rather meet his friends than mow the lawn, Anne decides to build him a robotic lawnmower. The difficulties she encounters in her garbage tip laboratory are not merely of a technical kind.

Title: BiLogic
Format: Standalone Documentary
Category: [REDACTED]
Director: Lining Yao & Helene Steiner
Produced by: Zach Both, Wen Wang, Guanyun Wang, Jifei Ou, Chin-Yi Cheng, Oksana Anilionyte Hiroshi Ishii
Running Time: 5 Minutes
Country: United States of America
Year: 2015
Age Guideline: Secondary School (12 - 16)

Natto bacteria have a very special property: they react to changes in humidity. A research team from the Tangible Media Group and the MIT Media Lab reveal how the properties of these bacteria can be used to develop new bio-materials. The team used a 3D printer to weave the bacteria cells into material for sports clothing. The fabric reacts to sweat and permits a fast cooling process. This new material was first used in the production of ballet wear in the autumn of 2015.

Title: Chasing Pluto
Format: Standalone Documentary
Category: Natural Science, Life Science & Technology
Director: Terri Randall
Produced by: Paula Apsell
Running Time: 60 Minutes
Country: United States of America
Year: 2015
Age Guideline: Secondary School (12 - 16)

The mission of spacecraft "New Horizons" is to fly close to Pluto and take the first-ever detailed photograph of the dwarf planet. Nine years and three million miles further on, the first image of this peculiar, icy world is made. Only the spacecraft can survive the last, tricky part of the journey, which involves passing through a dangerous system of tunnels. The aim of the mission is to reveal Pluto's mysterious surface in unprecedented detail and understand the secrets of worlds which exist outside our own solar system.

Title: Fixer Lab
Format: Animation or Short Film
Category: Family Edutainment
Director: Jennifer Treuting & Kristen McGregor
Produced by: Jennifer Treuting & Kristen McGregor
Running Time: 9 Minutes
Country: United States of America
Year: 2015
Age Guideline: Primary School (9 - 11)

FixerLab" is about three enthusiastic little engineers who take on the challenge of repairing a fan. First of all they need to find out how this top fan became a flop fan. Then they have to repair the broken fan with proper tools and strategies before returning it to its rather uptight owner.
